

BACHELOR OF SCIENCE IN HEALTH SCIENCE STUDIES

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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, as the student-adviser relationship provides opportunity and support for each student while pursuing *their goals* within the Quinnipiac University educational experience.

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 begin narrowing down a specific career goal and select a minor. This decision may change at any time during the undergraduate program. A select number of students accepted into the Health Science Studies major may be invited into the Physician Assistant (PA) Preparation Track.

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 future careers or graduate programs. Qualified students have applied to and attended graduate programs *such as* medical school, dental school, physician assistant, physical therapy, athletic training, occupational therapy, nutrition, social work, speech-language pathology, genetic counseling, medical laboratory sciences, pathology assistant, or 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 program's flexibility also allows students 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 an educational "gap year" and work jobs such as patient care associate, pharmacy technician, and physical therapy aide in order to gain additional experiences prior to graduate school.

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 humble interprofessional collaborators, who are

leaders and lifelong learners, equally prepared for advanced healthcare education or direct entry into a health science career.

The BS in Health Science Studies program requires a minimum of 120 credits for degree completion.

To remain in good academic standing within the program, students must maintain a minimum overall GPA of 2.50. Students must also complete BIO 102 by the end of their sophomore year.

Code	Title	Credits
	University Curriculum (http://catalog.qu.edu/academics/university-curriculum/) ¹	46
	Foundational Science Core (Biology, Chemistry, and additional Lab Science)	23
BIO 101 & 101L	General Biology I and General Biology I Lab	4
BIO 102 & 102L	General Biology II and General Biology Lab II	4
CHE 101 & 101L	Fundamentals of General, Organic and Biological Chemistry I and Fundamentals of General, Organic and Biological Chemistry I Lab	4
	or CHE 110 General Chemistry I and General Chemistry I Lab & 110L	
CHE 102 & 102L	Fundamentals of General, Organic and Biological Chemistry II and Fundamentals of General, Organic and Biological Chemistry II Lab	4
	or CHE 111 General Chemistry II and General Chemistry II Lab & 111L	
	Additional Lab Science course (Bio, BMS, BNS, Chem, Phy)	4
MA 275	Biostatistics	3
	Health Science Core	7
HSC 202	Medical Terminology	2
HSC 220	Health Care Essentials: Structure, Policy and Professionalism	3
HSC 221	Introduction to Health Care	2
	Health Science Electives ²	6
	Science Electives ³	18
	Open Electives	30
	Total	120

¹ Major course may double count with UC courses; consult with your adviser.

² Any additional course coded HSC

³ Any additional course coded BIO, BMS, CHE, DMS, EXSCI, HM, HSC, NUR, OT, PHY, PY, RS

This is a typical first-year plan of study. There are many possible paths through the curriculum. Each student's individual academic plan is crafted in consultation with their academic adviser.

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

¹ Chemistry courses and additional math courses depend on intended professional goal or career plan and math placement score.

Student Learning Outcomes

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

- Scientific Knowledge:** Demonstrate proficiency in understanding and explaining fundamental scientific principles in the core disciplines of biology and chemistry.
- Interprofessional Skills:** Effectively communicate information across the medical professions using advanced medical vocabulary.
- Teamwork:** Apply an advanced understanding of the interprofessional nature of healthcare.
- Health Systems:** Develop an advanced knowledge of the U.S. healthcare system and effectively describe challenges/issues that affect it.
- Evidence Informed Practice:** Critically evaluate biomedical information and sources to confirm validity and reliability.
- 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 2.50. 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 2.50 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 2.50 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 2.50).

HSC 130. Put Your Own Oxygen Mask on First:. 3 Credits.

The course focuses on the role of self-care in managing stress and maintaining well-being. Students explore how to prioritize their health by addressing the connection between stress, lifestyle, and mental health. The course covers stress-reduction strategies, mindfulness practices, the importance of recovery, and practical tools for managing daily stress. By combining theoretical knowledge with hands-on techniques, students will learn to integrate effective stress management into their routines, promoting long-term resilience and a healthier, balanced life.

Prerequisites: None

Offered: As needed, Fall and Spring

HSC 201. Career Planning and Development in the Health Sciences. 1 Credit.

This course aims to assist students in developing their individual career and professional development plans within the field of health care. Topics include: exploring job search strategies, resume and cover letter preparation, interviewing skills, effective business communication and presentation skills, and professionalism in the workplace. This course is graded on a pass/fail basis.

Prerequisites: None

Offered: Every year, Fall and Spring

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, Fall and Spring

HSC 206. Community Engagement: Leaving a 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, Fall and Spring

HSC 207. Community Engagement: special Populations 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, Fall and Spring

HSC 208. Community Engagement Veterans. 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 veterans.

Prerequisites: None

Offered: As needed, Fall and Spring

HSC 209. Introduction to Health Disparities. 3 Credits.

This course will introduce the student to examine existing inequities in healthcare access, delivery and quality among a diverse patient population in the United States. The course will allow students to begin to understand how the conditions in the environments where people are born, live, learn, work, play, worship, and age affect a wide range of health, functioning, and quality-of-life outcomes and risks.

Prerequisites: Take EN 102 or EN 103H.

Offered: Every year, Fall and Spring

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: Take MA 275 or MA 206.

Offered: Every year, Fall and Spring

HSC 212. Mental Health and Psychological First Aid. 1 Credit.

This one-credit, 14-hour training course designed to offer students key skills to help someone who is developing a mental health problem or experiencing a mental health crisis. Just as CPR training helps a layperson without medical training assist an individual experiencing a heart attack, Mental Health First Aid and Psychological First Aid training helps students assist someone experiencing a mental health crisis.

Prerequisites: None

Offered: As needed, 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 or BIO 211, BIO 211L.

Offered: Every year, All

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 or BIO 211, BIO 211L.

Offered: As needed, All

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: As needed, Fall and Spring

HSC 218. Introduction to Sports Medicine. 3 Credits.

This course is designed to introduce students to the world of sports medicine, as well as the roles and responsibilities of various professions that work as members of the sports medicine team. Students will learn the foundations of healthcare in sport and activity with a focus on patient-centered care.

Prerequisites: Take BIO 101 or BIO 103 or BIO 150 or BIO 211, BIO 211L.

Offered: Every year, Fall and 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 or BIO 211, BIO 211L.

Offered: Every year, All

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, Fall and Spring

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 or BIO 211, BIO 211L.

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 or BIO 103 or BIO 150 or BIO 211 and Take MA 107, MA 140, MA 141 MA 206 or MA 275.

Offered: As needed, Fall and Spring

HSC 250. Communication Disorders. 3 Credits.

This course will provide information regarding a variety of communication and swallowing disorders. Information regarding potential causes of disorders as well as intervention methods will be presented. The various healthcare professions that work together on cases of speech, language, hearing, and swallowing disorders will be discussed.

Prerequisites: Take BIO 102, BIO 102L or BIO 103 or BIO 151 or BIO 211, BIO 211L.

Offered: As needed, 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 or BIO 211, BIO 211L or BIO 104.

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: Take BIO 102, BIO 102L or BIO 103 or BIO 151 or BIO 211, BIO 211L.

Offered: Every year, Spring

HSC 280. Adaptive Recreation and Sports. 2 Credits.

This course focuses on the roles of different healthcare professions in designing and implementing adaptive recreation and sports. The course will consist of lecture and community observation. Lectures will prepare students to take the level I certification as an adaptive recreation and sports specialist through Blaze Sports America. Community observation will be guided experiences at a community - based adaptive sports program with reflection discussion and writing. COVID Vaccination and booster may be required by the community partners.

Prerequisites: None

Offered: Every year, Fall and Spring

HSC 281. Interview Teens With Disabilities. 1 Credit.

Narrative medicine interviewing and legacy interviewing will be integrated in this course to provide a foundation in interprofessional interviewing skills. The students will apply these skills to interprofessional core competencies related to diverse roles and responsibilities of team members and team communication. Student pairs, from two professions, will apply these interviewing skills, and person-first terminology, in a high school community setting to capture the life story and goals of adolescents with disabilities.

Prerequisites: None

Offered: As needed, Spring

HSC 282. Visual Arts for Health Teams. 3 Credits.

Through theory, experiential learning, and application to real-world challenges, students will engage with primary sources, research, experts, patients, and one another as a learning community, and in a unique arts-based lab component for mastering key principles of patient-focused, effective, and respectful clinical teaming. Students will learn Visual Thinking Strategies (VTS), a facilitation methodology for art discussions, shown to correlate with relational skills and clinical practice.

Prerequisites: None

Offered: As needed, Spring

HSC 290. Introduction to Kinesiology. 3 Credits.

An introductory course designed to explore the way the musculoskeletal system produces movement patterns in humans. Musculoskeletal anatomy, joint arthrology, muscular mechanics and biomechanical principals will be used to perform muscular analyses of both the upper and lower extremities and the trunk.

Corequisites: Take BIO 211

Offered: Every year, Fall and 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 or BIO 211, BIO 211L 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 or BIO 211, BIO 211L.

Offered: Every year, Fall and Spring

HSC 303. Nutrition for Sports & Fitness. 3 Credits.

In this foundational course, students learn nutritional concepts related to wellness, injury prevention and maximizing human performance. Students also explore concepts surrounding eating disorders, nutrition for the injured athlete, and dietary supplements.

Prerequisites: Take SCI 161, or HSC 262

Offered: Every year, 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 or BIO 211, BIO 211L.

Offered: Every year, Fall and Spring

HSC 307. Emergencies in Sport & Physical Activity. 3 Credits.

This course is designed to adequately prepare students to handle common emergency situations in athletic competition or physical activity. Basic life support and first aid concepts and skills will be taught and performed. Students will gain an appreciation of the most current literature that supports the care that is taught for each emergency.

Prerequisites: Take HSC 218.

Offered: As needed, Fall and Spring

HSC 308. Community Engagement Leadership. 2 Credits.

This two-credit course involves experiential learning through the development and implementation of a service program in collaboration with a local community partner. During this course, students will have the opportunity to learn to be leaders for 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 a population or organization.

Prerequisites: Take HSC 205 HSC 206 or HSC 208;

Offered: As needed

HSC 309. Human Motor Development. 3 Credits.

This course explores the various methods of conducting a comprehensive and efficient patient interview while focusing on the importance of establishing and building a patient/provider relationship based on trust and empathy. Emphasis is also placed on the importance of obtaining an accurate medical history, while creating an inclusive and compassionate environment during the patient encounter, as well as learning how to compose a comprehensive written medical note and present a concise oral report.

Prerequisites: Take BIO 212.

Offered: Every year, Fall and Spring

HSC 315. Bioethical Issues in the 21st Century. 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 or BIO 211.

Offered: Every year, All

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

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.**

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 150 or BIO 211, BIO 211L.**Offered:** Every year, Spring**HSC 324. Gut Microbes and Human Health.****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 211, BIO 211L or BIO 212.**Offered:** Every year, Spring**HSC 326. Therapeutic Exercise.****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.**

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 or BIO 211, BIO 211L.**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:** As needed, 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 354. Health Science Education.****3 Credits.**

This course explores several topics designed to prepare the student for the transition from undergraduate to graduate education in a health care field. Topics include metacognitive processes, communication, medical literacy and interprofessional health care. Assignments are designed to promote critical thinking and problem-solving skills and shifting toward graduate level thought processes.

Prerequisites: Take BIO 212.**Offered:** Every year, Fall and Spring

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 102 or BIO 103 or BIO 150 or BIO 151 or BIO 211 and MA 275 or MA 206.

Offered: As needed, 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 or BIO 211, BIO 211L.

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 or BIO 211, BIO 211L.

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 390. Introduction to Eval and Treatment I. 3 Credits.

This lecture course provides the student with a basic systematic approach to the process of physical evaluation and implementation of therapeutic interventions. It includes learning the processes and decision making required when working with individuals recovering from musculoskeletal injury or general medical illnesses. This course will challenge students to make decisions based on patient presentation.

Prerequisites: Take BIO 211 and HSC 290 or AT 115

Offered: Every year, Fall and Spring

HSC 391L. Intro to Evaluation and Treatment II. 2 Credits.

This hands-on laboratory course provides the student with the basic tools to implement a systematic approach to the process of physical evaluation and therapeutic interventions. It includes the processes of history taking and physical exam techniques, indications and contraindications of exercise, and exercise progression as related to injury, prevention, reconditioning and return-to-activity guidelines. Students will learn basic assessment techniques and learn how to implement and teach basic therapeutic interventions.

Prerequisites: Take HSC 390

Offered: As needed, Fall and 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 or BIO 211, BIO 211L.

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 or BIO 211, BIO 211L.

Offered: As needed, Summer

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 404. Healthcare Law and Ethics.**3 Credits.**

The planning and delivery of healthcare is strongly affected by legal issues and ethical aspects of professional roles and delivery in various settings. This course provides an overview of the legal and ethical issues faced by health care providers, patients and management. Basic legal and ethical principles will be presented and applied to selected scenarios to illustrate the role that law and ethics have on health care practice. The regulation of healthcare at national and state levels will also be reviewed. Student cannot also receive credit for HM 404

Prerequisites: None**Offered:** Every year, Fall and Spring**HSC 405. Biomechanics.****3 Credits.**

This course is an advanced study of human movement, concentrating on the principals of mechanics as they relates to the human body. Areas of musculoskeletal injury, pathology, sport performance, occupational risks, injury prevention, and rehabilitation are addressed. Projects are designed to achieve scientific insight into biomechanical problems and data analysis/graphing procedures.

Prerequisites: Take PHY 110 or instructor approval.**Offered:** Every year, Fall and Spring**HSC 410. Healthcare Quality and Safety.****3 Credits.**

This course will review the major sources of quality and safety standards, present major approaches to improving quality and safety, and discuss the role of all health care workers in creating a culture of safety. Different perspectives of patients, healthcare providers, public health professionals and risk-management personnel regarding quality and safety in healthcare organizations will be explored. Students are required to take the certification exam in Quality and Safety upon completion of this course.

Prerequisites: None**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 HSC 317 or HSC 318 or HSC 303 or AT 330**Offered:** Every year, Fall**HSC 490. Health Science Degree Completion Capstone.****3 Credits.**

This course is for online degree completion students only. This course will broaden your research, writing, and oral presentation skills for upper division course work and your eventual career path. This is a senior level course which provides an overview of health research principles and the role of evidence-based research. The Capstone experience will involve selection of an approved research question pertinent to your chosen field of study.

Prerequisites: None**Offered:** As needed, 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 499. Independent Study in Health Sciences II.****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

Pre-Medical Studies

The Pre-Medical Studies Designation is designed for undergraduate students who are interested in pursuing doctoral or advanced professional degrees in medicine such as MD, DO, DDS/DMD, PharmD, OD, DPM, DPT or DVM and allows students to enroll in and track typical medical or professional school course requirements. Students in any major may pursue the Pre-Medical Studies designation. Interested students should refer to the Pre-Medical Studies page for more information.

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
First Year		
Fall Semester		
English		3
General Biology with Lab		4
General Chemistry with Lab		4
Introduction to Health Care		2
Math - Statistics		3
Credits		16
Spring Semester		
English II		3
General Biology II with Lab		4
General Chemistry II with Lab		4
Medical Terminology		2
Elective		3
Credits		16
Second Year		
Fall Semester		
Anatomy and Physiology I with Lab		4
Lab Science 200 level or above		4
Elective		3
Elective		3
Credits		14
Spring Semester		
Anatomy & Physiology II with Lab		4
Elective		3
Elective		3
Elective		3
Elective		2
Credits		15
Total Credits		61