DEGREE PLAN

The Bachelor of Health Sciences curriculum provides the depth of knowledge and background theory necessary to understand not only how the human body functions in health and disease, but also how its environment – both physical and social – play major roles in health and disease.

Need help finding your way through Queen’s and beyond? Get BHSc specific advice on academics, extra-curriculars, networking, international opportunities and career development all in one place! The BHSc Program Map, produced by the Career Services Major Map project, provides suggestions – you don’t have to follow all the recommendations. Use the map to plan ahead, and find your own way at Queen’s!

Jump to:
• Year 1 (p. 1)
• Year 2 (p. 1)
• Year 3 (p. 2)
• Year 4 (p. 1)

View the BHSc Program Map (https://careers.queensu.ca/students/explore-careers-and-grad-school/major-maps/major-maps/) here!

<table>
<thead>
<tr>
<th>Code</th>
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<th>Units</th>
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<tbody>
<tr>
<td>ANAT 100</td>
<td>Anatomy of the Human Body</td>
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<tr>
<td>GLPH 171</td>
<td>Social and Physical Determinants of Health and Disease</td>
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<tr>
<td>HSCI 190</td>
<td>Introduction to Statistics for the Health Sciences</td>
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<tr>
<td>IDIS 173</td>
<td>The History and Philosophy of Health and Healthcare</td>
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<tr>
<td>PHAR 100</td>
<td>Introductory Pharmacology</td>
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<tr>
<td>PHGY 170</td>
<td>Human Cell Physiology</td>
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Total Units: 18.00

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<td>BCHM 270</td>
<td>Biochemical Basis of Health and Disease</td>
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<td>HSCI 270</td>
<td>Fundamentals of Health Research Methodology</td>
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<td>GLPH 271</td>
<td>Global and Population Health</td>
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<td>MIRC 270</td>
<td>Infection, Immunity and Inflammation 2</td>
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<td>PHGY 215</td>
<td>Principles of Mammalian Physiology I</td>
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<td>PHGY 216</td>
<td>Principles of Mammalian Physiology II</td>
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Total Units: 18.00

queensu.ca/academic-calendar
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<td>Interprofessional Approaches in Healthcare</td>
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<tr>
<td>MICR 290</td>
<td>Antibiotic Resistance Lab</td>
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<tr>
<td>PHGY 290</td>
<td>Investigation of Human Physiological Responses</td>
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### Year 2 Electives

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### Year 3 Core Course Requirements

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<tr>
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<tbody>
<tr>
<td>BCHM 370</td>
<td>Genetics and Genomics</td>
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</tr>
<tr>
<td>IDIS 373</td>
<td>Health Ethics, Law, and Policy</td>
<td>3.00</td>
</tr>
<tr>
<td>PATH 310</td>
<td>Introduction to Pathology and Molecular Medicine</td>
<td>3.00</td>
</tr>
<tr>
<td>PHAR 370</td>
<td>Fundamentals of Pharmacology and Therapeutics</td>
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<tr>
<td>REPD 372</td>
<td>Reproduction and Development</td>
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**Total Units**: 15.00

### Year 3 Option Course Requirements

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>ANAT 309</td>
<td>Functional Histology</td>
<td>3.00</td>
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<tr>
<td>ANAT 312</td>
<td>Functional Neuroanatomy</td>
<td>3.00</td>
</tr>
<tr>
<td>ANAT 380</td>
<td>Clinically Relevant Human Anatomy</td>
<td>3.00</td>
</tr>
<tr>
<td>ANAT 391</td>
<td>Introduction to Cadaveric Dissection</td>
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</tr>
<tr>
<td>LISC 300</td>
<td>The Process of Discovery in the Biomedical Sciences</td>
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</tr>
<tr>
<td>LISC 387</td>
<td>Sex Differences in Health and Disease</td>
<td>3.00</td>
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<tr>
<td>LISC 390</td>
<td>Integrated Life Science Laboratory I</td>
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</tr>
<tr>
<td>LISC 391</td>
<td>Integrated Life Sciences Laboratory</td>
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<tr>
<td>CANC 380</td>
<td>Evolutionary Biology of Cancer</td>
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<tr>
<td>GLPH 385</td>
<td>Biohacking &amp; Gerontechnology</td>
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<tr>
<td>HSCI 383</td>
<td>Advanced Research Methodologies</td>
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<tr>
<td>MICR 320</td>
<td>Microbes in Health and Disease</td>
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<td>MICR 360</td>
<td>Immunology</td>
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<tr>
<td>MICR 386</td>
<td>Fundamentals of Immunology in Health and Disease</td>
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<tr>
<td>NSCI 323</td>
<td>Cellular Neuroscience</td>
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<td>NSCI 324</td>
<td>Systems Neuroscience</td>
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<tr>
<td>NSCI 325</td>
<td>The Science of Psychedelics</td>
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<tr>
<td>PATH 381</td>
<td>Clinical Biochemistry</td>
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<tr>
<td>PHAR 380</td>
<td>Drug and Environmental Toxicology</td>
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<tr>
<td>PHGY 350</td>
<td>Pathophysiology</td>
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<tr>
<td>PHGY 355</td>
<td>Biomedical Respiratory Physiology</td>
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**Total Units**: 9.00

### Year 3 Electives *

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### Year 4 Core Course Requirements

<table>
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<tr>
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<tbody>
<tr>
<td>GLPH 471</td>
<td>Advanced Global and Population Health</td>
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<tr>
<td>REPD 473</td>
<td>Developmental Origins of Health And Disease</td>
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**Total Units**: 6.00

### Year 4 Option Course Requirements: Complete a total of 18.00 Units from the following 3 lists.

**Minimum 3.0 units from this list:**

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<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>ANAT 409</td>
<td>Selected Topics in Histology</td>
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<tr>
<td>ANAT 471</td>
<td>Human Embryology</td>
<td>3.00</td>
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<tr>
<td>BCHM 482</td>
<td>Proteomics and Metabolomics</td>
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<tr>
<td>CANC 440</td>
<td>Cancer Biology and Therapeutics</td>
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<tr>
<td>CRSS 453</td>
<td>Principles in Cardiorespiratory Science I</td>
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<tr>
<td>CRSS 454</td>
<td>Cardiovascular Sciences</td>
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<tr>
<td>CRSS 456</td>
<td>Molecular and Cellular Basis of Cardiovascular Disease</td>
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<tr>
<td>DDHT 459</td>
<td>Principles of Drug Discovery</td>
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<tr>
<td>DDHT 460</td>
<td>Principles of Drug Development</td>
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<tr>
<td>LISC 400</td>
<td>Neuro-Immune Interactions in Health and Disease</td>
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<tr>
<td>LISC 426</td>
<td>Current Concepts in Sensorimotor Neuroscience</td>
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<tr>
<td>MICR 451</td>
<td>Viral Pathogenesis</td>
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<tr>
<td>MICR 452</td>
<td>Viral Infection and Immunity</td>
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<tr>
<td>MICR 461</td>
<td>Advanced Immunology</td>
<td>3.00</td>
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<tr>
<td>MICR 483</td>
<td>Advanced Topics in Infectious Diseases</td>
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<tr>
<td>NSCI 401</td>
<td>Introduction to Theoretical Neuroscience</td>
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<tr>
<td>NSCI 403</td>
<td>Introduction to Neuroimaging</td>
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<td>NSCI 422</td>
<td>Cellular and Molecular Neuroscience</td>
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<tr>
<td>NSCI 429</td>
<td>Disorders of the Nervous System</td>
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<td>NSCI 433</td>
<td>Cellular Elements of the Nervous System: Responses to Injury and Disease</td>
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<td>NSCI 444</td>
<td>Controversies in Neuroscience</td>
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<td>Neurobiology of Learning and Memory</td>
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<tr>
<td>PATH 411</td>
<td>Applied Data Science in Molecular Medicine</td>
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<tr>
<td>PATH 425</td>
<td>Current Topics in Human Genetics</td>
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<tr>
<td>PATH 430</td>
<td>The Molecular Basis of Disease</td>
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<td>PHGY 424</td>
<td>Ion Channels of Excitable Cells</td>
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<tr>
<td>Code</td>
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<tr>
<td>PHAR 416</td>
<td>Xenobiotic Disposition and Toxicity</td>
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<tr>
<td>PHAR 480</td>
<td>Drug Discovery and Development</td>
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**Code** | **Title**                                                      | **Units** |
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Minimum 3.0 units from this list:</td>
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<tr>
<td>GLPH 472</td>
<td>Special Populations: Neonatal to End-of-Life-Care</td>
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<tr>
<td>GLPH 482</td>
<td>Foundations of Humanitarian Health Emergencies</td>
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<tr>
<td>GLPH 485</td>
<td>Global Application of Health Informatics</td>
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<tr>
<td>GLPH 487</td>
<td>One World, One Health: The Global Link Between Human, Animal, and Environmental Health</td>
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<tr>
<td>GLPH 488</td>
<td>Global Oncology: Cancer Care, Policy, Research, and Education</td>
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<tr>
<td>GLPH 493</td>
<td>Global Health Practice</td>
<td>3.00</td>
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<tr>
<td>HSCI 483</td>
<td>Applied Qualitative Methods for Health Research</td>
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</tr>
<tr>
<td>IDIS 473</td>
<td>Designing Life After Queen's</td>
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<tr>
<td>IDIS 480</td>
<td>Advanced Interprofessional Approaches in Healthcare</td>
<td>3.00</td>
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<tr>
<td>IDIS 483</td>
<td>Applied Health Ethics: Clinical, Organizational, and Research Perspectives</td>
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**Code** | **Title**                                                      | **Units** |
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<tr>
<td>Additional 4th year Options:</td>
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<tr>
<td>ANAT 599</td>
<td>Research Inquiry in Anatomy</td>
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<tr>
<td>HSCI 591</td>
<td>Health Sciences Research: Design and Methods</td>
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<tr>
<td>HSCI 592</td>
<td>Health Sciences Research: Design and Methods</td>
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<tr>
<td>HSCI 593</td>
<td>Health Sciences Research: Data Collection and Interpretation</td>
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<tr>
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<td>HSCI 595</td>
<td>Health Sciences Research: Data Collection and Interpretation</td>
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<td>HSCI 598</td>
<td>Advanced Health Sciences Research: Design and Methods</td>
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<tr>
<td>HSCI 599</td>
<td>Advanced Health Sciences Research: Data Collection and Analysis</td>
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**Code** | **Title**                                                      | **Units** |
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<thead>
<tr>
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<tr>
<td>Year 4 Electives *</td>
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</table>

**TOTAL UNITS REQUIRED**

120.0

Note: Students who complete QUIP or a certificate require more than 120.0 units to satisfy their degree requirements. For specific unit requirements please reach out to our Academic Advisors (bhscadvisor@queensu.ca).

1. If a student has previously completed BIOL 243 or STAM 200, they do not need to take HSCI 190 to fulfill the statistics requirement.
2. If a student chooses to take both MICR 270 Infection, Immunity and Inflammation and MICR 271 Introduction to Microbiology, one will count as core and the other towards the option or elective requirements.

*Electives can be any course the student is eligible to take, including any listed option courses. All Arts & Science Online (http://www.queensu.ca/artsci_online/courses/course-list/) courses are accepted as electives. Additionally, BHSc On-Campus students may choose courses from the Arts & Science Calendar (https://queensu-ca-public.courseleaf.com/arts-science/course-descriptions/).