



## **Rochester Campus**

## **Health Sciences B.S.**

UM Rochester

### **UMR Chancellor's Office**

- Program Type: Baccalaureate
- Requirements for this program are current for Fall 2019
- Required credits to graduate with this degree: 120
- Required credits within the major: 71 to 74
- Degree: Bachelor of Science

Rochester students majoring in the health sciences will receive an integrated education across the biological sciences, the physical sciences, the quantitative sciences, the social sciences, and the arts and humanities. Students must complete at least 120 credits.

The health sciences BS program prepares students for post baccalaureate education in a broad spectrum of health science related fields and for graduate programs in the sciences, social sciences, and humanities; health profession careers, including certificate programs in the health sciences; professional schools in the health sciences; and entry-level science and laboratory positions in industry, government agencies, and universities.

## **Program Delivery**

This program is available:

- via classroom (the majority of instruction is face-to-face)

## **Admission Requirements**

A GPA above 2.0 is preferred for the following:

- 2.50 transferring from outside the University

For information about University of Minnesota admission requirements, visit the [Office of Admissions website](#).

## **General Requirements**

All students are required to complete general University and college requirements including writing and liberal education courses. For more information about University-wide requirements, see the [liberal education requirements](#).

## **Program Requirements**

Students are required to take 2 semester(s) of Spanish or approved alternate language.

All students are required to complete campus-wide requirements for liberal education and writing. UMR liberal education is integrated into the curriculum throughout the four years and follows the liberal education requirements on the UMTC campus, except that UMR requires all five themes. Writing and communication follows a writing-integrated curriculum and is incorporated throughout the curriculum across all courses.

In addition to the requirements below, students are required to create a personalized capstone. As part of the capstone, students write a proposal that requires them to list credit bearing activities, reflect upon their holistic experience, and express how their capstone endeavors align with their personal and professional goals.

### **Foundational Courses**

Take exactly 11 course(s) totaling exactly 31 credit(s) from the following:

- [BIOL 2311](#) - Integrative Biology [BIOL, TS] (4.0 cr)
- [BIOL 2321](#) - Biology of Human Function (4.0 cr)
- or [BIOL 2331](#) - Anatomy and Physiology I [BIOL] (4.0 cr)
- [CHEM 1331](#) - Chemical Structures and Properties [PHYS] (4.0 cr)
- [CLI 1000](#) - Academic Inquiry into the Health Sciences (2.0 cr)
- [CLI 1712](#) - Personal Development and Career Exploration (1.0 cr)
- [CLI 2713](#) - Career Development and Career Skills in the Health Sciences (1.0 cr)
- [MATH 1161](#) - Introduction to Statistics [MATH] (3.0 cr)
- [PHIL 1441](#) - Introduction to Ethics [CIV, AH] (3.0 cr)
- [PSY 1511](#) - Introduction to Psychology [SOCS] (3.0 cr)
- [PUBH 2561](#) - Introduction to Public Health [GP] (3.0 cr)
- [SOC 1571](#) - Introduction to Sociology [SOCS, DSJ] (3.0 cr)



### Writing

Take 1 - 2 course(s) totaling exactly 2 credit(s) from the following:

- WRIT 1520 *{Inactive}* (2.0 cr)
- or WRIT 1510 *{Inactive}* (1.0 cr)
- WRIT 1511 *{Inactive}* (1.0 cr)

Take exactly 1 course(s) totaling exactly 2 credit(s) from the following:

- WRIT 1512 *{Inactive}* (2.0 cr)

### Communication

Take exactly 1 course(s) totaling exactly 3 credit(s) from the following:

- COMM 2511 - Communication Methods (3.0 cr)
- or COMM 2711 - Communication in Professional Contexts (3.0 cr)

### Civic Engagement

Take 1 or more course(s) totaling 3 - 6 credit(s) from the following:

- CLI 3522 - Community Collaboratory (3.0 cr)
- or six credits of coursework with the Community Engaged Learning (CEL) attribute

### Language

#### Spanish Introductory Course Sequence

Take exactly 2 course(s) totaling exactly 6 credit(s) from the following:

- SPAN 1521 - Spanish I (3.0 cr)
- SPAN 1522 - Spanish II (3.0 cr)

or **Spanish Proficiency Exam**

Spanish proficiency exam

or **Approved Alternate Language Assessment**

approved alternate language assessment

or **Approved Alternate Language Introductory Course Sequence**

completion of the introductory sequence of a language other than English at the college level

### Quantitative Reasoning

Take exactly 1 course(s) totaling 3 - 4 credit(s) from the following:

- MATH 1110 *{Inactive}* [MATH] (3.0 cr)
- or MATH 1111 *{Inactive}* [MATH] (3.0 cr)
- or MATH 1171 - Calculus I [MATH] (4.0 cr)
- or MATH 2161 - Biostatistics [MATH] (3.0 cr)
- or MATH 2171 - Calculus II [MATH] (4.0 cr)

### Upper-Division Coursework

Take 12 or more credit(s) from the following:

- BIOC 3321 - Biochemistry (3.0 cr)
- BIOC 3322 - Biochemistry II (4.0 cr)
- BIOC 3721 - Special Topics in Biochemistry (1.0 - 4.0 cr)
- BIOL 3311 - Genetics [BIOL, TS] (3.0 cr)
- BIOL 3332 - Anatomy and Physiology II (4.0 cr)
- BIOL 3344 - Microbiology [ENV] (4.0 cr)
- BIOL 3721 - Special Topics in the Life Sciences (1.0 - 4.0 cr)
- BIOL 4312 - Advanced Topics in Molecular and Cellular Biology and Genetics (4.0 cr)
- BIOL 4342 - Neuroscience (3.0 cr)
- BIOL 4364 - Immunology (3.0 cr)
- CHEM 3721 - Special Topics in Chemistry (1.0 - 4.0 cr)
- CHEM 4331 - Chemical Biology (3.0 cr)
- CHEM 4333 - Physical Chemistry (3.0 cr)
- ENGL 3471 - Gender and Sexuality Studies [DSJ] (3.0 cr)
- ENGL 3481 - Society, Science, and Science Fiction [TS] (3.0 cr)
- ENGL 3721 - Special Topics in English (1.0 - 4.0 cr)
- HIST 3245 - Epidemics, Empires, and Environment [HIS, ENV] (3.0 cr)
- HIST 3721 - Special Topics in History (1.0 - 4.0 cr)
- HP 4802 - Health Economics and Finance [DSJ] (3.0 cr)
- HP 4902 - Management and Leadership in Healthcare [GP] (2.0 cr)
- PHIL 3437 - History and Philosophy of Science [HIS] (3.0 cr)
- PHIL 3441 - Ethics of Medicine and the Sciences [AH, CIV] (3.0 cr)
- PHIL 3721 - Special Topics in Philosophy (1.0 - 4.0 cr)
- PHYS 3721 - Special Topics in the Physical Sciences (1.0 - 4.0 cr)
- PSY 3510 - Human Development across the Lifespan (3.0 cr)



- [PSY 3512](#) - Principles of Abnormal Psychology (3.0 cr)
- [PSY 3721](#) - Special Topics in Psychology (1.0 - 4.0 cr)
- [PSY 4512](#) - Social Psychology (3.0 cr)
- [PUBH 3331](#) - Health Equity & Social Determinants of Health (3.0 cr)
- [PUBH 3531](#) - Health Policy & Systems [GP, SOCS] (3.0 cr)
- [PUBH 3561](#) - Environmental Health and Environmental Justice [ENV, SOCS] (3.0 cr)
- [PUBH 3721](#) - Special Topics in Public Health (1.0 - 4.0 cr)
- [PUBH 4561](#) - Introduction to Epidemiology (3.0 cr)
- [SOC 3571](#) - Drugs and Society [DSJ, SOCS] (3.0 cr)
- [SOC 3581](#) - Medical Sociology and Technology [SOCS, TS] (3.0 cr)
- [SOC 3721](#) - Special Topics in Sociology (1.0 - 4.0 cr)
- [SPAN 3721](#) - Special Topics in Spanish (1.0 - 4.0 cr)
- [WRIT 3721](#) - Special Topics in Writing (1.0 - 4.0 cr)

### Capstone

#### Proposal & Reflection

Take exactly 2 course(s) totaling exactly 3 credit(s) from the following:

- [CLI 3712](#) - Capstone Proposal Writing (2.0 cr)
- [CLI 4713](#) - Capstone Reflections (1.0 cr)

#### Activities

These credits cannot be used to satisfy any other program requirements.

Take 6 or more credit(s) from the following:

- upper-division (3xxx-level or higher) coursework

### 3+2 Pre-PA Pathway

Students admitted to the 3+2 pre-PA Master's program (offered in collaboration with MCSHS) are required to take the following courses, normally optional within the BSHS degree: BIOC 3321; BIOL 3332, 3344 & 4364; CHEM 1333, 2231 & 2333; MATH 1110 & 1111; and PSY 3510 & 3512. In addition, the following courses are recommended: BIOL 3311; additional upper division physiological sciences courses such as cellular biology or virology; and a research methodology course.