

Health Sciences, M.S.

Degree Offered

- Master of Science

Nature of the Program

The Master of Science (M.S.) program in the **Health Sciences** emphasizes enhancing knowledge in the biomedical and public health disciplines to increase the student's competitiveness for admission to professional or graduate programs and/or to augment the student's career potential. The program is a one-year, non-thesis masters. Completion of the M.S. degree is realized when the student has fulfilled all course requirements and the independent study project. Students can enter the program in either the Fall semester or the Summer Session. The Master of Science (M.S.) in the Health Sciences is a terminal degree program targeting students interested in developing their skills toward a career requiring basic science knowledge.

The objectives of this program are to:

1. provide integrative scientific education in the biomedical and public health sciences to graduates from an accredited undergraduate institution
2. provide the opportunity to explore career options in various health professional disciplines
3. develop integrative and critical thinking skills to allow application of scientific knowledge to traditionally non-scientific fields
4. train students in the rudiments of research on a basic science, public health or clinical topic; these include hypothesis testing, data collection, manuscript preparation
5. enhance competitiveness for admission to a health professional and/or Ph.D. program
6. enhance skills for job placement including resume and cover letter evaluation, and interviewing preparation.

To achieve these objectives, the program has two areas of emphasis: (1) advancement of basic science and public health knowledge for career enhancement and (2) partnering basic science with other disciplines. In the first area of emphasis, the student will augment his/her scientific skills with advanced coursework emphasizing critical thinking and application of that knowledge to problems facing human health. This area targets students interested in pursuing professional or advanced academic degrees. In the second area of emphasis, the student can expand their knowledge to allow them to direct a non-scientific career toward one that relies on a scientific skill set. Students in this area of emphasis may be teachers wishing to teach science in secondary schools, individuals interested in eventually achieving other professional degrees such as a J.D. or M.B.A. to pursue patent law or a position in a biotech/pharmaceutical company, or positions as a scientific liaison translating scientific knowledge to the general public in a community organization or a for profit company, a position sometimes called a knowledge broker.

Proposed coursework is designed to build the foundation knowledge common to first-year curricula in medical and dental schools and biomedical and public health Ph.D. programs. The common core curriculum will include coursework in the basic sciences course such as physiology and biochemistry and courses in public health, biostatistics, epidemiology, and social and behavioral theory. The director of the M.S. in the Health Sciences works with each student to tailor electives to fit the student's career goals. In addition to coursework, the student will participate in a series of activities:

- Participation in an independent study project with a research mentor for three semesters
- Training in reading, writing, and evaluation of the scientific literature
- Enrichment activities to enhance career development skills, such as preparation to take entrance exams, preparation of resumes and cover letters, seminar presentation skills, and interviewing skills
- Attendance at seminars to learn cutting edge advancements in science
- Cross-disciplinary approach to the acquiring and application of scientific knowledge

Admissions for 2026-2027

All applications to the M.S. in the Health Sciences program are accepted electronically and must be submitted electronically via the official WVU Graduate Education application.

M.S. in the Health Sciences applications are reviewed beginning in January by a Common Admissions Committee comprised of the Director of the MS in Health Sciences program, the School of Medicine Associate Dean for Student Services & Curriculum, the School of Dentistry Associate Dean for Dental Admissions, Recruitment, & Access, the Director of Admissions for the Office of Research and Graduate Education, and the School of Medicine Program Director for Physician Assistant Studies.

Students may apply for admission beginning in either the summer (May) session or the fall (August) semester of that year. Decisions of acceptance are made on a rolling basis until all slots are filled. All decisions made by the Admissions Committee are final. For maximum admissions consideration, we recommend that you apply as early as possible.

Please visit the website (<https://health.wvu.edu/research-and-graduate-education/graduate-education/ms-programs/health-sciences/>) to review the application process.

Major Code: 8308

Master of Science

MAJOR REQUIREMENTS

Code	Title	Hours
Minimum overall grade point average of 3.0 is required.		
Minimum grade of C is required.		
PSIO 743	Fundamentals of Physiology	5
EPID 501	Epidemiology for Public Health	3
BIOS 501	Applied Biostatistics 1	3
BMM 531	General Biochemistry	4
or PCOL 549	Pharmacology Fundamentals for Future Healthcare Professionals	
BMS 684	Journal Club and Seminar	1
BMS 685	Professionalism in Health Care	2
SBHS 601	Social and Behavioral Theory	3
BMS 695 (taken 3 times)		6
Electives (Courses numbered 400-799) *		9
Presentation of independent study project		
Total Hours		36

*Credit toward a MS in Health Sciences graduate degree may be obtained only for elective courses listed in the graduate catalog.

Independent Study

Students are required to register for independent study each semester and during summer session. The student will conduct an independent project under the guidance of a faculty advisor. The project can involve data collection, retrospective analysis of patient data, a comprehensive literature review, or other activity approved by the graduate director that is consistent with the student's career goals. During the final semester in residence, the student presents a short talk of the results or culmination of his/her project.

Seminar: Journal Club

Students are required to register for seminar: journal club at least once during the course of the degree. Regardless of registration in this course, students still participate in the sessions. The fall semester emphasizes learning to read the scientific literature and gain new knowledge by attending seminars. The spring semester emphasizes learning how to present a seminar.

Additional Enrichment Activities

To enhance the attainment of his/her career goal, the student may take a preparative course for the MCAT, DAT or GRE exams. Students may shadow a professional in their field of interest. Additional activities can include: preparation for interviewing, resume preparation, writing the personal statement, and career development. These activities can occur throughout the degree program.

Suggested Plan of Study

First Year

Fall	Hours	Spring	Hours	Summer	Hours
PSIO 743		5 BMM 531		4 BMS 685	2
EPID 501		3 SBHS 601		3 BMS 695	2
BIOS 501		3 Elective		3 Elective	3
BMS 695		2 Elective		3	
BMS 684		1 BMS 695		2	
		14		15	7

Total credit hours: 36

Major Learning Outcomes

HEALTH SCIENCES

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