

# BIOMEDICAL INFORMATICS (MS/MPH)

## Program Description and Goals

The Master of Science in Biomedical Informatics/Master of Public Health dual degree program combines the MS degree from the McWilliams School of Biomedical Informatics at UTHealth Houston with the MPH from the UTHealth Houston School of Public Health. The training and curriculum in the dual degree program will provide students and future leaders in public health with the necessary skills to be leaders in the field of Public Health Informatics. The dual degree program provides an integrated curriculum that includes a number of shared courses as well as a practicum experience.

Students in the dual degree program must be admitted separately to each UTHealth Houston school. Students must meet the requirements of each UTHealth Houston school for its respective degree. Admission to one program does not ensure admission to the other. Students in the dual degree program will receive a diploma from each degree program after meeting the individual requirements of each UTHealth Houston school. Admission does not have to be done at the same semester for each school, but must be done before reaching the maximum hours set by each school.

## Master of Science in Biomedical Informatics Admission Process – MS/MPH Dual Degree Program

The applicant should present a completed application and official documentation of the following:

1. A baccalaureate degree or higher
2. Official transcripts from all colleges and universities attended
3. Goal Statement – follow template instructions on the school's website (<https://sbmi.uth.edu/prospective-students/admission-requirements.htm>)
4. A resume or curriculum vitae (as appropriate)
5. Three letters of reference from educators and/or employers
6. Students with international college transcripts must submit a course-by-course evaluation report by either World Education Services or Educational Credential Evaluators.
7. For International Applicants: A minimum TOEFL score of 94 is acceptable on the internet-based test. A minimum acceptable score for the IELTS is a 7.

Applicant materials will be reviewed by the McWilliams School of Biomedical Informatics Admissions, Progression and Graduation (APG) Committee. The committee will consider such areas as:

- Health, MIS, Computer, or Engineering related degree
- Healthcare work experience
- Database work experience
- Informatics work experience
- Demonstrated expertise in programming
- GPA in previous degree
- Success in overcoming social, economic or educational disadvantages, race and ethnicity

## Requirements for Applicants with International Coursework

- The Test of English as a Foreign Language (TOEFL) (<https://www.ets.org/toefl.html>) or the International English Testing System (IELTS) (<https://ielts.org/ielts-usa/>). For admissions consideration a minimum acceptable score of 94 on the internet-based TOEFL is required or a minimum acceptable overall score of 7.0 on the IELTS is required. Test scores are valid for two years from the test date. The official scores must be submitted directly to GradCAS from the applicable test center. Submit official TOEFL scores by using the reporting code B886; no department code is required. Submit official IELTS scores by sending them to GradCAS; no code is needed. Testing is at the applicant's expense.
- Applicants that have completed coursework outside of the United States and who have received a diploma from a university at which English is the language of instruction are not required to submit an English Language exam. If this school is outside of an English-speaking country, evidence that indicates the language of instruction will need to be provided with your application such as a letter from the University on official letterhead.
- Applicants that have completed coursework outside of the United States must submit official transcripts and a course-by-course education evaluation of all transcripts from all universities attended outside the United States. The application forms for such an evaluation may be obtained online from the service providers; Educational Credential Evaluators, Inc. (ECE) (<https://www.ece.org>) and World Education Services (WES) (<https://www.wes.org>). Only evaluations from ECE or WES will be accepted. The results of the evaluation must be submitted directly to GradCAS by the agency. The evaluation report is at the applicant's expense.
- International applicants seeking F-1 student sponsorship are not eligible for this dual degree program.

## MS/MPH Dual Degree Program - Master of Science in Biomedical Informatics Application Deadlines

- Fall admission: July 1
- Spring admission: November 1
- Summer admission: March 1

## Transfer Credit

Transfer credit is not accepted for students enrolled in the dual degree program due to the amount of shared credit hours between McWilliams School of Biomedical Informatics and the School of Public Health (SPH).

## Shared Credit Hours

Courses that are accepted at McWilliams School of Biomedical Informatics, through a dual or joint degree program, can only be transferred into the McWilliams School of Biomedical Informatics degree plan if the grade earned in the course is a "B" or higher. Courses for which grades of less than "B" were earned will not be accepted for transfer.

## Academic Requirements

Each student follows a degree plan developed with the Dual Degree Program Coordinator. A signed degree plan, found here (<https://sbmi.uth.edu/current-students/curriculum/>), will be filed each academic year that includes the required and/or elective courses as specified for

the student's Dual Degree program. A total of 40 semester credit hours must be completed prior to graduation.

A student in the dual degree MS/MPH Program in Biomedical Informatics has up to eight years (24 semesters) from the time of entry to complete the required course work. A student who has not enrolled in two consecutive registration periods (including the summer session) will have an academic hold placed on their myUTH account by the McWilliams School of Biomedical Informatics Office of Academic Affairs. Students with an academic hold will need to meet to discuss their academic degree plan with their academic advisor to have the hold removed and be allowed to enroll in future courses. A student who has not enrolled for three or more consecutive registration periods will be dismissed and must reapply for admission to the program and the School.

Each course with a BMI prefix in the Biomedical Informatics degree plan is a graduate-level course and should be passed with a grade of "B" or better. Students who earn a grade of "C" must retake the course, whether a required or elective course, and earn a grade of "B" or higher to continue on in their academic program. The course must be retaken the next semester the course is offered. The original grade of "C" will remain on the student transcript. All students who earn a grade of "C" will be placed on Academic Probation. Students are not permitted to earn more than two grades of "C". The third grade of "C" will result in dismissal from the school. The minimum grade point average (GPA) required for graduation is 3.0 on all courses.

Courses that are being accepted at McWilliams School of Biomedical Informatics, through a dual or joint degree program, can only be transferred in if the grade earned in the course is a "B" or higher. Courses for which grades of less than "B" were earned will not be accepted for transfer. Courses must have been completed within the last five years to qualify. See "Five(5)-Year Rule (<https://catalog.uth.edu/biomedical-informatics/academic-standards-policies-procedures/>)".

A maximum of six credit hours of Directed Study can be applied toward the MS in Biomedical Informatics program.

## Computer Requirement

Every student is required to have reliable access to a computer that meets the minimum requirements. Students are encouraged to purchase a laptop that meets the minimum UTHHealth Houston requirements.

Computer requirements are listed on the school's website (<https://sbmi.uth.edu/current-students/student-handbook/computer-requirements.htm>) and are subject to change.

## Curriculum for MS/MPH Dual Degree

The curriculum for the Master of Science in Biomedical Informatics and the Master of Public Health include required didactic courses and a practicum. Didactic courses (lecture/discussion, demonstration and student laboratories) are presented to provide facts, concepts, and theories related to the techniques and procedures of public health courses, and support courses. The public health informatics practicum is designed to give the students the opportunity to apply theory and techniques in the hospital, research, community health agencies or private laboratory setting.

Each student will develop a degree plan with written approval from their faculty advisor.

Code	Title	Hours
BMI 5300	Introduction to Biomedical Informatics	3
BMI 5310	Foundations of Biomedical Information Sciences I	3
BMI 5311	Foundations of Biomedical Information Sciences II	3
BMI 5380	Principles and Foundations of Public Health Informatics	3
BMI 6313	Scientific Writing in Healthcare	3
BMI 6000	Practicum in Biomedical Informatics	3
PHM 1690L	Introduction to Biostatistics in Public Health	4
PHM 2612L	Introduction to Epidemiology	3
PHM 1110L	Health Promotion and Behavioral Sciences in Public Health	3
PHM 3715L	Management & Policy Concepts in Public Health	3
PHM 2110L	Public Health Ecology & the Human Environment	3
Elective Courses		6
<b>Total Hours</b>		<b>40</b>

Changes to the degree plan must be approved in advance by the faculty advisor and the signed degree plan must be on file with the Office of Academic Affairs prior to course registration.

- Master's in Biomedical Informatics (MS): 40 Required Semester Credit Hours
- Master's in Public Health (MPH): 45 Required Semester Credit Hours
- Total Semester Credits: 85
- Shared Courses: -25
- Grand Total for Combined Degrees: 60

## Practicum

Students in the McWilliams School of Biomedical Informatics master's program must select an area of interest in which to apply the knowledge and skill gained during the didactic courses while participating in the required practicum course. Students must complete at least 24 credit hours in their master's program before participating in the practicum requirement. Students should work with the McWilliams School of Biomedical Informatics Practicum Coordinator for any necessary affiliation or program agreements with the practicum site, if agreements are not already in place. A practicum proposal must be submitted to the Practicum Coordinator by week three of the semester of enrollment in the practicum course, and it must be approved, in writing, by the student's Faculty Practicum Advisor. Students can complete all required practicum credit hours during one semester or the course can be repeated for a maximum of 3 semester credit hours (for BMI 6000 Practicum in Biomedical Informatics) to meet degree requirements. During the course of the semester(s), student must create weekly logs to chronicle their hours, tasks, and reflections on how the duties of the practicum relate to Biomedical Informatics courses taken. Once the student has logged all 135 contact hours and concluded all practicum projects, she or he must create an 18-page APA format double spaced capstone report that details the major project they completed during their practicum. This report, along with other deliverables, will be submitted in completion of the practicum. If the student receives an incomplete for practicum, the student will have the following semester to complete it or receive an "F". If students have any questions regarding the practicum, they can contact the Practicum Coordinator or the McWilliams School of Biomedical Informatics Office of Academic Affairs.

For further curriculum information, contact:

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