GRADUATE CERTIFICATES

Program Description and Goals

McWilliams School of Biomedical Informatics offers various Graduate Certificates designed for self-motivated professionals working in the health care and information technology fields. A certificate requires the student to complete a minimum of 15 semester credit hours.

The certificates provide professionals with an increased understanding of the opportunities and challenges involved in technology integration into health care. They will be able to participate in designing, planning, implementing and evaluating new software and hardware solutions at their institutions.

The school is experienced in providing education to working professionals. The certificate programs are designed to provide quality education to professionals on their schedule as courses can be completed online.

Upon satisfactory completion of the 15 semester credit hours, students will be awarded a certificate of completion from McWilliams School of Biomedical Informatics at UTHealth Houston.

Please note: F-1 sponsorship is not available for non-degree seeking programs, including certificate programs.

Admission to the Biomedical Informatics Certificate Programs

The admission process to the certificate programs is designed to get the professional working applicant into the program by meeting minimal requirements.

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

1. Official transcripts from all colleges/universities attended with the minimum of a baccalaureate or higher degree awarded.
2. Goal Statement
3. A resume or curriculum vitae (as appropriate)
4. One Letter of Reference from an educator or employer
5. Students with international college transcripts must submit a course-by-course evaluation report by either World Education Services or Educational Credential Evaluators.

Application deadlines

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

The coursework completed as a Certificate Student is at the graduate level. A transcript showing graduate credits may be obtained from the Registrar's Office.

The semester credit hours earned in the certificate programs may be transferable into the corresponding degree-seeking program. No grade lower than a "B" will be accepted to transfer into master's or doctoral programs. 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/)".

Academic Requirements for Biomedical Informatics Certificate Programs

A student in any McWilliams School of Biomedical Informatics Certificate Program has up to five years (15 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 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.

Curriculum for Biomedical Informatics Certificate Program

The Biomedical Informatics Certificate Program offers the following curriculum with completion of 15 semester credit hours and includes two different options. Option 1 is a set of five predetermined courses with an emphasis in Clinical Informatics.

Code	Title	Hours
BMI 5300	Introduction to Biomedical Informatics [2]	3
BMI 5310	Foundations of Biomedical Information Sciences I	3
BMI 5313	Foundations of Electronic Health Records and Clinical Information Systems [1]	3
BMI 5360	Clinical Decision Support Systems	3
BMI 6340	Health Information Visualization and Visual Analytics	3
Total Hours		**15**

[1] $100 course fee
[2] Must be taken in the first semester.

BMI 5300 Introduction to Biomedical Informatics must be taken in the first semester. The other four courses can be taken in any order.

Option 2 is BMI 5300 Introduction to Biomedical Informatics and the student's choice (with advice from a certificate program advisor) of four courses selected from the course concentration listing. This option allows professionals to customize their studies to meet their background and needs.

A maximum of three credit hours of Directed Study can be applied toward the Biomedical Informatics Certificate program.

Curriculum for Applied Biomedical Informatics Certificate Program

The Applied Biomedical Informatics Certificate Program offers the following curriculum with completion of 15 semester credit hours and includes two different options. Option 1 is a set of five predetermined courses with an emphasis in Electronic Health Records (EHRs).

Code	Title	Hours
BMI 5300	Introduction to Biomedical Informatics [3]	3
BMI 5301	The US Healthcare System	3

BMI 5305	Legal Ethical Aspects of Health Informat	3
BMI 5313	Foundations of Electronic Health Records and Clinical Information Systems [1]	3
BMI 5328W	System Analysis and Project Management [2]	3
Total Hours		**15**

[1] $100 Course Fee
[2] $50 Course Fee
[3] Must be taken in the first semester.

BMI 5300 Introduction to Biomedical Informatics must be taken in the first semester. The other four courses can be taken in any order.

Option 2 is BMI 5300 Introduction to Biomedical Informatics and the student's choice (with advice from a certificate program advisor) of four courses selected from the Applied Masters course offerings. This option allows professionals to customize their studies to meet their background and needs.

A maximum of three credit hours of Directed Study can be applied toward the Applied Biomedical Informatics Certificate program.

Curriculum for Joint Certificate in Public Health Informatics Program

The Public Health Informatics Certificate Program is offered in conjunction with the UTHealth Houston School of Public Health and offers the following curriculum with completion of 16 semester credit hours:

Code	Title	Hours
BMI 5300	Introduction to Biomedical Informatics	3
BMI 5380	Principles and Foundations of Public Health Informatics	3
PHM 1690L	Introduction to Biostatistics in Public Health	4
PHM 2612L	Epidemiology I	3
Select one of the following courses:		3
BMI 5313	Foundations of Electronic Health Records and Clinical Information Systems	
BMI 5381	Methods in Public Health Informatics	
BMI 5382W	Synthesis Project in Public Health Informatics	
PHM 1110L	Health Promotion and Behavioral Sciences in Public Health	
PHM 2110L	Public Health Ecology & the Human Environment	
PHM 3715L	Management & Policy Concepts in Public Health	
Total Hours		**16**

PHM 1690L Introduction to Biostatistics in Public Health, PHM 2612L Epidemiology I or BMI 5300 Introduction to Biomedical Informatics must be taken in the first semester.

Courses that are accepted at McWilliams School of Biomedical Informatics through the joint certificate 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.

Each student will develop a degree plan with written approval of their academic advisor. 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 their certificate program.

Curriculum for Health Data Science Certificate Program

The Health Data Science Certificate Program offers the following curriculum with completion of 15 semester credit hours.
BMI 5300 Introduction to Biomedical Informatics must be taken in the first semester. The other four courses can be taken in any order based on individual course requirements.

Code	Title	Hours
BMI 5300	Introduction to Biomedical Informatics	3
BMI 5007	Methods in Health Data Science	3
BMI 6340	Health Information Visualization and Visual Analytics	3
Select two of the following:		6
BMI 5304	Advanced Database Concepts for Biomedical Informatics	
BMI 5353	Biomedical Data Analysis	
BMI 5351	Research Design and Evaluation in Biomedical Informatics	
BMI 6306	Biomedical Ontologies and Knowledge Representation	
BMI 6318	Big Data in Biomedical Informatics	
BMI 6323	Machine Learning in Biomedical Informatics	
BMI 6331	Medical Imaging and Signal Pattern Recognition	
BMI 6334	Deep Learning in Biomedical Informatics	
Total Hours		**15**

Curriculum for Pharmacy Informatics Certificate Program

The Pharmacy Informatics Certificate Program offers the following curriculum with completion of 15 semester credit hours.

BMI 5300 Introduction to Biomedical Informatics must be taken in the first semester. The other four courses can be taken in any order based on individual course requirements.

Code	Title	Hours
BMI 5300	Introduction to Biomedical Informatics [2]	3
BMI 5390	Methods in Pharmacy Informatics	3
BMI 5391	Synthesis Project in Pharmacy Informatics	3
Select two of the following:		6
BMI 6313	Scientific Writing in Healthcare	
BMI 5328W	System Analysis and Project Management [1]	
BMI 6340	Health Information Visualization and Visual Analytics	
Total Hours		**15**

[1] $50 course fee
[2] Must be taken in the first semester.

For Certificate Program Information, contact:

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