

ADVANCED EDUCATION IN GENERAL DENTISTRY AND BIOMEDICAL INFORMATICS (AEGD/MS)

Pathway Programs

Students seeking admission to dual or pathway degree programs must meet the admission requirements of both schools and apply separately for each program. Students must meet the requirements of each school for its respective program. Please note that one program does not guarantee admission to the other. Students are responsible for tuition and fee payments for all courses at both schools. Students in the program will receive a diploma and/or certificate from each school after meeting the individual requirements of each program.

AEGD/MS

The Advanced Education in General Dentistry (AEGD) Graduate Certificate and Master of Science in Biomedical Informatics (MS) Pathway Program is a collaborative program between McWilliams School of Biomedical Informatics and the UTHealth Houston School of Dentistry (UTSD). Through this program, students can concurrently earn both the Master of Science in Biomedical Informatics from McWilliams School of Biomedical Informatics and a Graduate Certificate in General Dentistry from UTSD.

The AEGD/MS pathway program is an innovative and forward-thinking approach to training dental professionals with critical skills in data analysis, health informatics, and evidence-based decision-making. This program complements core clinical dental competencies by equipping students with expertise in data management, analysis, and health information technology integration—skills that are increasingly essential as technology transforms patient care. Graduates will be prepared to address complex challenges in public health and healthcare delivery, extending their impact beyond traditional dental practice. This pathway program also empowers students to engage in interdisciplinary healthcare initiatives, promoting oral health, disease prevention, and modern care delivery models that integrate informatics-driven solutions.

Aligned with UTHealth Houston's transdisciplinary mission, this program fosters collaboration between dentistry and informatics professionals. It prepares participants to lead advancements in areas such as electronic health record optimization, clinical decision support systems, and AI-powered patient care. By uniting the clinical strengths of the Graduate Certificate in General Dentistry with the data-driven focus of McWilliams School of Biomedical Informatics, this program not only enhances individual expertise but also drives innovation and systemic improvements in both dental and broader healthcare practices.

AEGD/MS Pathway Program Curriculum

The AEGD/MS program requires a minimum of 39 semester credit hours to earn the MS, including the completion of a practicum experience in the field of biomedical informatics. Students must complete 32 semester credit hours (SCH) of McWilliams School of Biomedical Informatics coursework and a total of seven (7) SCH of UTHealth Houston School of Dentistry courses are approved for shared credit allocation and application to the McWilliams Master of Science in

Biomedical Informatics. Those courses, along with suggested terms of enrollment, are outlined here:

- DBPG 1001 – SU YR1
 - Conscious Sedation I – 1 SCH Elective Course
- DBPG 1081 – FA YR1
 - Oral Biomaterials I – 1 SCH Elective Course
- DBPG 1091 – SP YR1
 - Oral Biomaterials II – 1 SCH Elective Course
- DBPG 1920 – SU YR2
 - Applied Sciences II – 2 SCH Elective Course
- DBPG 1007 – FA YR
 - Practice Management – 1 SCH Elective Course
- DBPG 8006A – SP YR2
 - Perio/Pros Tx Planning Conf – 1 SCH Elective Course

The program curriculum for the MS degree includes these required, McWilliams School of Biomedical Informatics courses:

- BMI 5300: Introduction to Biomedical Informatics (3 SCH)
- BMI 5310: Foundations of Biomedical Information Sciences I (3 SCH)
- BMI 5311: Foundations of Biomedical Information Sciences II (3 SCH)
- BMI 5352: Statistical Methods
- BMI 6313: Scientific Writing in Healthcare (3 SCH)
- BMI 6002: Directed Study in Dental Informatics (2 SCH)
- BMI 6000: Practicum in Biomedical Informatics (3 SCH)

Students must also select four elective courses from McWilliams School of Biomedical Informatics in their area of interest for a total of 12 SCH. The Office of Academic Affairs and the student's academic advisor can assist with creating an integrated schedule for program completion.