This program leads to a profession which requires an occupational license as defined under Texas Occupations Code 58.001. This requires that all applicants seeking to become licensed must undergo a criminal background check prior to licensure.

The degree explores the application of powerful modern bioscience approaches such as molecular cell biology, molecular genetics and genomics, as well as anatomy, physiology, and neuroscience to human health. It is a preparatory degree for tomorrow’s health care professionals and leaders and thus prepares students for successful admission to professional schools in medicine, dentistry, veterinary medicine, pharmacy, physical therapy, and physician assistant programs as well as graduate studies in biomedical sciences.

### A – GENERAL EDUCATION CORE – 42 HOURS

Students must fulfill the General Education Core requirements. The courses listed below satisfy both degree requirements and General Education core requirements.

**Required**

**020 - Mathematics – 3 hours**  
MATH 2413 Calculus I (or MATH 2487 Honors) three-hour lecture

**030 - Life and Physical Sciences – 6 hours**  
CHEM 1311 General Chemistry I  
CHEM 1312 General Chemistry II

**080 - Social and Behavioral Sciences – 3 hours**  
PSYC 2301 General Psychology

**090 - Integrative and Experiential Learning – 2 hours**  
CHEM 1111 General Chemistry I Lab  
CHEM 1112 General Chemistry II Lab

### B – MAJOR REQUIREMENTS – 49 HOURS (36 advanced)

**1 – Biomedical Sciences – 22 hours (9 advanced)**

BMED 1101 Introductory Medical Biochemistry  
BMED 1102 Introduction to Biomedical I Laboratory  
BMED 1103 Introductory Cell Biology  
BMED 1104 Introductory Molecular Biology  
BMED 1105 Introductory Medical Genetics  
BMED 1106 Introductory Medical Microbiology  
BMED 1107 Introductory Immunology  
BMED 1108 Introductory Medical Neuroscience  
BMED 1109 Evolutionary Medicine  
BMED 1110 Introductory Medical Physiology  
BMED 1111 Introduction to Biomedical II Laboratory  
BMED 2101 Gross Anatomy  
BMED 2102 Molecules, Cells, and Tissues  
BMED 3101 Pathobiology and Host Defense  
BMED 3102 Neurochemistry  
BMED 3103 Human Behavior  
BMED 3104 Integrated Body Systems I: Cardiovascular and Pulmonary  
BMED 3105 Integrated Body Systems II: Gastrointestinal Systems  
BMED 3106 Integrated Body Systems III: Renal, Fluids and Electrolytes  
BMED 3107 Integrated Body Systems IV: Endocrine and Reproductive Systems  
BMED 3108 Integrated Body Systems V: Dermatology, Hematology, and Musculoskeletal  
BMED 3109 Medical Syndromes

**2 – Advanced Biomedical Sciences – 27 hours (27 advanced)**

BMED 3121 Independent Research I  
BMED 3122 Independent Research II  
BMED 3123 Independent Research III  
BMED 3124 Independent Research IV  
BMED 4220 Medical Bioinformatics, Genomics, and Systems Biology  
BMED 4230 Human Genetics and Medical Genomics
BMED 4440 Medical Microbiology  
BMED 4250 Advanced Cell Biology  
BMED 4260 Advanced Molecular Biology  
BMED 4270 Introduction to Complementary and Alternative Medicine  
BMED 4280 Advanced Medical Neuroscience  
BMED 4290 Medical Immunology  
BMED 4295 Pathophysiology  
BMED 4310 Medical Biochemistry  

C – SUPPORT COURSES – 23 HOURS (3 advanced)  
CHEM 2123 Organic Chemistry I Lab  
CHEM 2125 Organic Chemistry II Lab  
CHEM 2323 Organic Chemistry I  
CHEM 2325 Organic Chemistry II  
MATH 1342 Elementary Statistical Methods (or MATH 1387 Honors)  
MATH 2413 Calculus I (or MATH 2487 Honors) one-hour lecture  
STAT 3301 Applied Statistics for Science, Engineering, and Medical Science  
PHYS 1401 General Physics I  
PHYS 1402 General Physics II  

D – RESTRICTED ELECTIVES – 6 HOURS (3 advanced)  
1 – Spanish Elective – 3 hours  
2 – Advanced Elective – 3 hours (3 advanced)  
   Choose 3 advanced hours from BMED, PSYC, BIOL, CHEM, MATH, PHYS, HPRS, or CSCI.  

TOTAL CREDIT HOURS FOR GRADUATION – 120 HOURS  
TOTAL ADVANCED HOURS – 42 HOURS  

ADMISSION, PROGRESSION, AND GRADUATION REQUIREMENTS, if applicable:  

Admission requirements  
The minimum requirements are:  
   1. UTRGV accepted  
   2. Submitted BMED application online or pdf application form by email  
   3. High School Transcripts  
   4. College Transcripts (if applicable)  
   5. Career survey writing sample  
   6. SAT/ACT scores  

Progression requirements  
Students have to maintain a minimum of a 3.0 cumulative GPA at all times.  

Graduation requirements  
1. A grade of ‘C’ or better in Biomedical Sciences (Section B1) and in MATH 2413 (of MATH 2487 Honors) and in CHEM 1311, CHEM 1111, CHEM 1312, CHEM 1112 is required for graduation.