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 Laboratory I
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 System III: Renal, Fluids and Electrolytes
BMED 3107 Integrated Body System IV: Endocrine and Reproduction Systems
BMED 3108 Integrated Body System 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.
2. In addition to the graduation requirements listed in the UTRGV 2018-2019 Undergraduate Catalog, demonstration of proficiency in a language other than English is required at the undergraduate level equivalent to a minimum of six credit hours. Proficiency can be demonstrated by a college credit exam, a placement test approved through the UTRGV Department of Writing and Language Studies, and/or up to six credit hours of college-level language coursework.