

Choose 1	Communication (Core)
CHEM 1311	General Chemistry I
CHEM 1111	General Chemistry I Lab
BMED 1101	Introductory Medical Biochemistry
BMED 1103	Introductory Cell Biology
BMED 1104	Introductory Molecular Biology
BMED 2102	Molecules, Cells and Tissues
BMED 1102	Introduction to Biomedical Laboratory I
UNIV 1301	Learning Framework
Choose 1	Communication (Core)
CHEM 1312	General Chemistry II
CHEM 1112	General Chemistry II Lab
Choose 1	Spanish Elective
BMED 1105	Introductory Medical Genetics
BMED 1106	Introductory Medical Microbiology
BMED 1107	Introductory Immunology
BMED 1109	Evolutionary Medicine

FIRST YEAR

CHEM 2323	Organic Chemistry I
CHEM 2123	Organic Chemistry I Lab
Choose 1	Creative Arts (Core)
BMED 1108	Introductory Medical Integrated Body Systems I: BMED 3104
BMED 3108	Integrated Body Systems V: Dermatology, Hematology and Musculoskeletal
BMED 1110	Introductory Medical Physiology
BMED 2101	Gross Anatomy
BMED 1111	Introduction to Biomedical II Lab
BMED 3121	Independent Research I
CHEM 2325	Organic Chemistry II
CHEM 2125	Organic Chemistry II Lab
MATH 1342	Elementary Statistical Methods
PSYC 2301	General Psychology
Choose 1	Language, Philosophy & Integrated Body Systems II: BMED 3105
BMED 3105	Gastrointestinal Systems
BMED 3106	Integrated Body Systems III: Renal, Fluid and Electrolytes
BMED 3107	Integrated Body Systems IV: Endocrine and Reproduction
BMED 3122	Independent Research II

SECOND YEAR

Choose 1	American History (Core)
PHYS 1401	General Physics I
BMED 3102	Neurochemistry
BMED 4280	Advanced Medical Neuroscience
BMED 3103	Human Behavior
BMED 3223	Independent Research III
MATH 2413	Calculus I
Choose 1	American History (Core)
PHYS 1402	General Physics II
BMED 4310	Medical Biochemistry
BMED 4250	Advanced Cell Biology
BMED 4260	Advanced Molecular Biology
BMED 3224	Independent Research IV
Choose 1	Advanced Elective

THIRD YEAR

Choose 1	Government/Political Science (Core)
MATH 3331	Applied Statistics I
BMED 4240	Medical Microbiology
BMED 4290	Medical Immunology
BMED 4230	Human Genetics and Medical Genomics
BMED 4220	Medical Bioinformatics, Genomics, and Systems Biology
Choose 1	Government/Political Science (Core)
Choose 1	Integrative and Experimental Learning (Core)
BMED 4295	Pathophysiology
BMED 3101	Pathobiology and Host Medical Syndromes
BMED 3109	Medical Syndromes
BMED 4270	Introduction to Complementary and Alternative Medicine

FOURTH YEAR

Additional Info

Admission requirements  
 1. Secondary application  
<http://www.utrgv.edu/hbs/undergraduate-programs/bs-bmed-hybrid/bmed-application-instructions/index.htm>  
 2. Departmental approval and selection into 3YR Honors, 4YR Honors and 4YR Regular tracks.  
Progression requirements  
 An overall GPA of 2.8 or better has to be maintained in BMED and non-BMED courses to stay in the program.  
 Departmental approval  
Graduation requirements  
 A grade of 'C' or better in Biomedical Sciences (Section B1) and in MATH 2413 (of MATH 2487 Honors) is required for graduation.  
 \*Note: All are subject to change pending departmental and curricular committee advisories.

Contact Info

Department Chair: Dr. Saraswathy Nair  
[Saraswathy.Nair@utrgv.edu](mailto:Saraswathy.Nair@utrgv.edu)  
 Assoc. Department Chair: Ms. Kim Garcia  
[Kim.Garcia@utrgv.edu](mailto:Kim.Garcia@utrgv.edu)  
 Student Success Manager: Ms. Rosalinda Garza  
[Rosalinda.Garza@utrgv.edu](mailto:Rosalinda.Garza@utrgv.edu)  
 Department Locations  
 Brownsville Campus (956) 882-7383  
 BRHP 1.101  
[Angela.Reyes@utrgv.edu](mailto:Angela.Reyes@utrgv.edu)  
 Edinburg Campus (956) 665 5269  
 EHABW 2.206  
[Sabine.Castillo@utrgv.edu](mailto:Sabine.Castillo@utrgv.edu)  
[healthandbiomedicalsciences@utrgv.edu](mailto:healthandbiomedicalsciences@utrgv.edu)

UTRíoGrandeValley

# BLUE PRINT

**BIOMEDICAL SCIENCES (BS)**  
 Catalog: 2017-18  
**COLLEGE OF HEALTH AFFAIRS**

Degree Info

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.

# BLUEPRINT EXPERIENCES

## FIRST YEAR

## SECOND YEAR

## THIRD YEAR

## FOURTH YEAR AND BEYOND

## CAREERS

### MILESTONES

- UTRGV has a Writing Center and a Learning Center. Make it a point to visit them!
- Complete your core English classes (section 010) during your first year.
- Complete 30 credit hours every year in order to graduate in 4 years.
- Shoot for a GPA of 3.5.
- Take MATH 1314 in your first year.

- Shoot for a GPA of 3.5.
- Complete major foundation classes, such as BMED 1101-1111.
- Complete 30 credit hours.
- Apply to the Honors College and Summer Internships program. The deadline is usually early spring.

- Shoot for a GPA of 3.5 or higher.
- Complete 30 credit hours.
- Have you landed an internship or acquired research experience? This is the year to make it happen.

- Shoot for a GPA of 3.5 or higher.
- "I have a plan for after graduation." If this describes you, great! If not, visit your Faculty Advisor or Career Center!
- Register for your Capstone/senior/portfolio project: BMED 3224.
- Complete at least 30 credit hours to graduate.
- Submit your application(s) for graduate school, an apprenticeship, or for fulltime employment.

### ADVICE & SUPPORT

- Meet with your academic advisor and bring your orientation folder with you to every session!
- Choose a major with confidence- Visit my.UTRGV.edu and check out the Kuder Journey.
- Visit a faculty member during their office hours and ask a question about class.
- Classes fill up fast. When registration opens, be sure to register on the first day for your group.
- Cold or flu getting you down? We have Student Health Services on campus with free office visits.

- Want to explore different careers? Check out Kuder Journey!
- Come ready with course suggestions and questions when you visit your academic advisor.
- Visit the Communication Hauser Lab for help with your speeches.
- Trouble making your tuition payment? The Financial Aid Office can help. Payment plans and emergency loans are also available

- Seek out research opportunities within your major and join a professional organization such as American Medical Student Association.
- Check DegreeWorks to make sure you are on track for graduation next year.
- Apply for internship and/or job shadowing opportunities. Discuss this with your advisor, faculty mentor, or Career Center.

- Engage in an independent study project or an academic internship to complement your major, such as BMED 3121, 3122, 3223.
- Discuss future plans with your faculty mentor or advisor that includes employment, finances, and other life goals.
- Apply for graduation one semester prior to your anticipated date. Visit the Academic Advising Center to ensure you are on track.

### APPLY WHAT YOU LEARN

- Look for a service-learning course! For guidance, visit Engaged Scholarship & Learning Office.
- Participate in a campus-sponsored community service project.
- Ask a student in class to study with you.

- To find undergraduate research opportunities, visit the Engaged Scholarship & Learning Office.
- Consider attending the LeaderShape Institute or attend the Engaged Scholar Symposium.

- Go show off your research, service-learning or creative works at the Engaged Scholar Symposium!
- Sharpen your writing skills! Take an intensive writing course such as or become the secretary for your organization.

- Continue to present research or creative works at the Engaged Scholar Symposium or at National conferences such as ABRCCMS or SACNAS.
- Set up an informational interview with an individual (especially an alumnus) currently in the field you aspire to work in.

### GLOBAL, CAMPUS & COMMUNITY ENGAGEMENT

- Set up your profile on the Engagement Zone through My.UTRGV.edu.
- Attend a diversity based campus or community event (e.g. MLK Day of Service).
- Attend a departmental program such as Student Success Academy, White coat ceremony etc.
- Join a student organization! Consider looking into BSA (Biomedical Student Association), Research labs or visit VLink (utrgv.edu/vlink) for options.

- Look at study abroad opportunities! Consider going to Medical Brigades missions, VATW etc.
- Check out a cultural campus or community event such as HESTEC or FESTIBA.
- Join another student organization. Perhaps L2S, T4A or visit VLink for options.
- Check out a campus event that offers free lunch- bring a friend!

- Consider serving on a campus life/community committee or become a student leader and make a difference. Visit VLink or speak with your Student Government Association for more information!
- Travel the world! Look into study abroad opportunities at Office for International Programs & Partnerships.

- Identify employers of interest and seek them out at job fairs, online, at on-campus information sessions, staffing agencies, etc. The Career Center can help.
- Before a job interview, schedule a mock interview with the Career Center or speech coaching with the Communication Hauser Lab.

### LIFE AFTER GRADUATION

- Create a résumé and set up your profile on the Career Connection icon: (My.UTRGV.edu).
- Got summer plans? Visit Career Center and ask about places to do some job shadowing.
- Research shows that students who work on campus perform better than those who work off campus. Look for a job on the Career Center portal!
- Check your UTRGV email for the daily Messenger- locate and attend one student workshop.

- Update your resume in Career Connection and have it reviewed.
- Visit the Career Center site to find a job fair to attend. At the event, approach a recruiter and discuss internships.
- Will a minor expand your career options? We recommend Psychology, Chemistry etc.
- Explain to someone how your academic program aligns with your strengths and interests.

- Check out the <http://www.utrgv.edu/hbs/index.htm> department website for postings on career/graduate school.
- Think about three people you can ask for letters of recommendation (professors, mentors, advisors, supervisors, etc.). Give them at least two weeks' advance notice!
- When is the deadline for your graduate school application? Visiting the program admissions webpage. Most do not accept late applicants!

- Have you received your acceptance for graduate school or an employment offer? If not, network: talk to faculty, the Career Center, and get on LinkedIn.
- Formulate and implement a strategy for life after graduation: attend career fairs, graduate fairs, apply to fellowships, etc.
- Update your information with Alumni Relations. Enjoy alumni mixers, events and continued access to Career Center services!
- Remember to do your exit loan counseling on studentloans.gov.

- Some areas of Specialization:
  - Biophysics
  - Biochemistry
  - Cellular and molecular biology
  - Genetics
- Immunology
- Pathology
- Pharmacology
- Physiology
- Virology
- Colleges/universities
- Professional schools: colleges of pharmacy, dentistry, medicine, veterinary medicine, & agriculture
- Federal government:
  - National Institutes of Health
  - Centers for Disease Control/Prevention
  - Food and Drug Administration
- State and local public health departments
- Clinics and hospitals
- Private research foundations
- Independent laboratories
- Pharmaceutical companies

For additional info, visit the Career Center website and check out "What Can I Do With This Major?"  
[www.utrgv.edu/careercenter](http://www.utrgv.edu/careercenter)