

Choose 1	Communication (Core)
MATH 2413	Calculus I
Choose 1	American History (Core)
Choose 1	Integrative/Experiential Learning Option (Core)
Choose 1	Creative Arts (Core)
UNIV 1301	Learning Framework
Choose 1	Communication (Core)
MATH 2414	Calculus II
PHYS 2425	Physics for Scientists and Engineers I
Choose 1	American History (Core)
CSCI 1380	Computer Science I

MATH 2415	Calculus III
PHYS 2426	Physics for Scientists and Engineers II
Choose 1	Government/Political Science (Core)
Choose 1	Social and Behavioral Sciences (Core)
Choose 1	Biophysics/Medical Sciences (Core)
Choose 1	Biophysics/Medical Physics Concentration
MATH 3341	Differential Equations
Choose 1	Biophysics/Medical Physics Concentration
PHYS 3402	Modern Physics
Choose 1	Government/Political Science (Core)
Choose 1	Biophysics/Medical Physics Concentration

PHYS 3303	Thermodynamics
Choose 1	Biophysics/Medical Physics Concentration
PHYS 3411	Math Methods in Physics I
PHYS 3305	Classical Mechanics
Choose 1	Biophysics/Medical Physics Concentration
PHYS 3412	Math Methods in Physics II
PHYS 4201 or 4101	Advanced Physics Lab or Senior Laboratory
PHYS 4305	Statistical Mechanics
Choose 1	Biophysics/Medical Physics Concentration
Choose 1	Language, Philosophy & Culture (Core)

PHYS 4303	Quantum Mechanics I
PHYS 3304	Optics
PHYS 4101	Laboratory Research
PHYS 3301	Electromagnetic Theory I
Free Elective	Free Elective
PHYS 3302	Electromagnetic Theory II
PHYS 4108	Seminar in Physics
PHYS 4304	Quantum Mechanics II
PHYS 4300	Undergraduate Research Project
XXXX X3XX	Free Elective
XXXX X3XX	Free Elective

**FIRST YEAR      SECOND YEAR      THIRD YEAR      FOURTH YEAR**

**Additional Info**

You must apply to the UTeach program. Students must fulfill the General Education Core requirements. Within the General Education Core the students are required to take:

*Life and Physical Sciences – 6 hours*

- PHYS 2425 Physics for Scientists and Engineers I (three-hour lecture)
- PHYS 2426 Physics for Scientists and Engineers II (three-hour lecture)

*Mathematics – 3 hours*

- MATH 2413 Calculus I (three hour lecture)

*Integrative/Experiential Learning Option – 6 hours*

- CSCI 1380 Computer Science I
- PHYS 2425 Physics for Scientists and Engineers I (one-hour lab)
- PHYS 2426 Physics for Scientists and Engineers II (one-hour lab)
- Any additional course of 1 credit or more that satisfies General Education Core "Integrative/Experiential Learning Option" Requirements.

**Contact Info**

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**PHYSICS (BS)**  
 \*Biophysics/Medical Physics  
 Catalog: 2017-18  
**COLLEGE OF SCIENCES**

**Degree Info**

A Physicist has a solid understanding of fundamental laws, which in turn can be applied to a wide area of scientific and engineering fields. It is an exciting career that requires discipline and significant amount of work. It also requires development of mathematical, experimental, theoretical, and computational skills. As a result of the Physicist's solid and broad background, Physicists can apply to a wide range of job opportunities, including National Laboratories and Research Centers, Industry, and Academia.

# 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 or higher.
- Take MATH 2413 in your first year.

### 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 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.

### 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.

### 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 programs such as the weekly seminars.
- Join a student organization! Consider looking into the SPS (Society of Physics Students).

### 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.

- Shoot for a GPA of 3.5 or higher.
- Complete major foundation classes, such as PHYS 3305, PHYS 3303, PHYS 3304, PHYS 3402, and PHYS 3411.
- Complete 30 credit hours.

- 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

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

- Look at study abroad opportunities!
- Check out a cultural campus or community event such as HESTEC or FESTIBA.
- Join another student organization.
- Check out a campus event that offers free lunch- bring a friend!

- 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 the Chemistry Minor.
- Explain to someone how your academic program aligns with your strengths and interests.

- 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.

- Seek out research opportunities within your major and join a professional organization such as the APS (American Physical Society).
- 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.

- Go show off your research, service-learning or creative works at the Engaged Scholar Symposium!
- Sharpen your writing skills!

- 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.

- Check out the Physics & Astronomy 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!

- 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: PHYS 4300.
- Complete at least 30 credit hours to graduate.
- Submit your application(s) for graduate school, an apprenticeship, or for fulltime employment.

- Engage in an independent study project or an academic internship to complement your major, such as a Biophysics or Biomedical research project.
- 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.

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

- 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.

- 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.

- Research
- Development
- Clinical service
- Consulting
- Monitoring
- Enforcement
- Colleges and universities
- Government:
  - National Institutes of Health
  - Department of Energy
- Industry:
  - Biotechnology
  - Medical equipment
  - Environmental
  - Pharmaceuticals
  - Food science
  - Toxicology
  - Medical instrumentation
  - Nuclear power
  - Waste management/disposal
  - Food irradiation
  - Petroleum
- Nonprofit research centers
- Medical/dental schools
- Hospitals

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)