ACADEMIC PLAN

FIRST YEAR	
Choose 1	Communication (Core)
MATH 2413	Calculus I
Choose 1	American History (Core)
Choose 1	Social and Behavioral Sciences (Core)
Choose 1	Creative Arts (Core)
UTCH 1101	Inquiry Approaches to Teaching
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
UTCH 1102	Inquiry-Based Lesson Design

SECOND YEAR	
MATH 2415	Calculus III
Choose 1	Language, Philosophy & Culture (Core)
PHYS 2426	Physics for Scientists and Engineers II
Choose 1	Government/Political Science (Core)
PHYS 3330	Functions and Modeling
MATH 3341	Differential Equations
MATE 3317	Perspective in Mathematics and Science
PHYS 3402	Modern Physics
UTCH 3301	Knowing and Learning in Mathematics and Science
Choose 1	Government/Political Science (Core)
Choose 1	Integrative/Experiential Learning Option (Core)

THIRD YEAR	
PHYS 3305	Classical Mechanics
PHYS 3411	Math Methods for Physicist I
PHYS 3303	Thermodynamics
UTCH 3302	Classroom Interactions
xxxx x3xx	Free Elective
xxxx x3xx	Free Elective
PHYS 4305	Statistical Mechanics
PHYS 4101	Senior Laboratory Research
READ 4305	Content Area Literacy
UTCH 3303	Project-Based Instruction

FOURTH YEAR	
PHYS 3304	Optics
PHYS 3301	Electromagnetic Theory I
PHYS 4303	Quantum Mechanics I
PHYS 4300	Undergraduate Research
PHYS 4392	Research Methods
UTCH 4101	Apprentice Teaching Seminar
UTCH 4601	Apprentice Teaching

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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UTRioGrandeValley

BLUE PRINT

PHYSICS (BS)

***7th-12th UTeach Certification**
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
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.	☐ Shoot for a GPA of 3.5 or higher. ☐ Complete major foundation classes, such as PHYS 3305, PHYS 3303, PHYS 3304, PHYS 3402, PHYS 3411, UTCH 1101, UTCH 1102, UTCH 3301, UTCH 3302, PHYS 3330, and MATE 3317. ☐ Complete 30 credit hours. ☐ Apply to the UTeach program. For more information visit www.utrgv.edu/cep.	☐ 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: PHYS 4300. ☐ 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 the APS (American Physical Society) or the AAS (American Astronomical 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.	☐ Engage in an independent study project or an academic internship to complement your major, such as an Educational Physics 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.
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!	☐ Continue to present research or creative works at the Engaged Scholar Symposium or at Physics and/or Astronomy and/or Educational conferences. ☐ 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 programs such as the weekly seminars. ☐ Join a student organization! Consider looking into the SPS (Society of Physics Students) and/or Astronomy Club.	☐ 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!	☐ 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 the Astronomy Minor. ☐ Explain to someone how your academic program aligns with your strengths and interests.	☐ 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!	☐ 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.

CAREERS

- Teaching
- Computer software development
- Educational research
- Writing and editing
- Library and information Sciences
- Public school systems
- Private schools
- Publishing companies:
  - Books
  - Magazines
  - Videos
- Software developers
- Libraries

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