

## FOURTH YEAR

CHEM 3304 Physical Chemistry I  
 CHEM 3104 Physical Chemistry I Lab  
 CHEM 4305 Chemistry Capstone  
 CHEM 4201 Chemistry Problems I  
 Choose 1 Social and Behavioral Sciences  
 UTCH 3303 Project-Based Instruction  
 CHEM 3305 Physical Chemistry II  
 CHEM 3105 Physical Chemistry II Lab  
 UTCH 4601 Apprentice Teaching  
 UTCH 4101 Apprentice Teaching Seminar

## THIRD YEAR

CHEM 3303 Biochemistry I  
 CHEM 3103 Biochemistry I Lab  
 CHEM 2301 Analytical Chemistry  
 CHEM 2101 Analytical Chemistry Lab  
 PHYS 1401 General Physics I  
 PHIL 3317 Perspectives on Science & Math  
 CHEM 3301 Inorganic Chemistry  
 CHEM 3101 Inorganic Chemistry Lab  
 CHEM 4304 Instrumental Analysis  
 CHEM 4104 Instrumental Analysis Lab  
 PHYS 1402 General Physics II  
 READ 4305 Content Area Literacy  
 UTCH 3302 Classroom Interactions

## SECOND YEAR

CHEM 2323 Organic Chemistry I  
 CHEM 2123 Organic Chemistry I Lab  
 Choose 1 Language, Philosophy & Culture  
 Choose 1 American History  
 Choose 1 Integrative/Experiential Learning  
 UTCH 3301 Knowing & Learning in Math & Science  
 CHEM 2325 Organic Chemistry II  
 CHEM 2125 Organic Chemistry II Lab  
 Choose 1 American History  
 Choose 1 Integrative/Experiential Learning  
 PHYS 4392 Research Methods  
 PHYS 3330 Functions and Modeling

## FIRST YEAR

Choose 1 Communication  
 CHEM 1311 General Chemistry I Lab  
 CHEM 1311 General Chemistry I  
 Choose 1 Government/Political Science  
 MATH 2413 Calculus I  
 UTCH 1101 Inquiry Approaches to Teaching  
 UNIV 1301 Learning Framework  
 Choose 1 Communication  
 CHEM 1312 General Chemistry II  
 CHEM 1112 General Chemistry II Lab  
 MATH 2414 Calculus II  
 Choose 1 Government/Political Science  
 Choose 1 Creative Arts  
 UTCH 1102 Inquiry-Based Lesson Design

### 2018-2019 ACADEMIC PLAN

### Additional Info

- Students should pay close attention for two UTeach admission deadline in summer and fall semesters set by the UTeach program.
- Students must apply to college of education for admission into the UTeach program after acquiring junior status (60 hours towards degree plan) with an overall GPA of 2.75, and must have completed 15 semester credit hours in chemistry.
- Students should have minimum passing score on one of the following exams (may mix and match) THEA, Compass, Accuplacer, ACT, SAT. Please consult UTeach program for minimum scores).
- Other pre-requirements for UTeach admissions include ENGL 1301; ENGL 1302 with C or better and UTCH 3301 ( Knowing & Learning in Math & Science)
- After completing UTeach 3303 in spring apply to Apprentice Teaching for fall.
- Students must pay close attention to prerequisite course requirements of all chemistry courses
- Students must receive a grade of "C" or better in calculus-1 and calculus-2 prior to enrolling in Physical Chemistry courses.

### Contact Info

Department Chair  
 Dr. Yuanbing Mao  
[yuanbing.mao@utrgv.edu](mailto:yuanbing.mao@utrgv.edu)

Undergraduate Program  
 Coordinator  
 Dr. Hassan Ahmad  
[hassan.ahmad@utrgv.edu](mailto:hassan.ahmad@utrgv.edu)

Department Office:  
 Phone: (956) 665-3372  
 Email: [chemistry@utrgv.edu](mailto:chemistry@utrgv.edu)

UTRio Grande Valley

BLUE  
 PRINT

CHEMISTRY (BS)  
 \*7<sup>th</sup>-12<sup>th</sup> UTeach Certification  
 Catalog: 2018-19  
 COLLEGE OF SCIENCES

### Degree Info

Students receiving the BS Degree in Chemistry with Teacher Certification can continue their academic studies into masters or doctoral programs in Chemistry, can use the degree to find employment as a chemist, or can enter a career as a secondary school teacher of chemistry. The Chemistry degree is certified by the American Chemical Society

Courses in red are part of the General Education Core Curriculum (GEC).

"Choose 1" Indicates course options. If options are not listed, please review the 2018-19 General Education Core or the degree plan for this major: [www.utrgv.edu/degreeplans](http://www.utrgv.edu/degreeplans).

# 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 4.0
- Take MATH-2413 and MATH 2414 in your first year.

- Shoot for a GPA of 4.0.
- Complete major foundation classes, such as CHEM 1111/1311; 1112/1312; 2123/2323; 2125/2325
- Complete ENGL 1301; ENGL 1302 with C or better and UTCH 3301
- Complete 30 credit hours.

- Shoot for a GPA of 4.0.
- Complete 30 credit hours.
- Have you landed an internship or acquired research experience? This is the year to make it happen.
- Apply to the UTeach program. Visit [www.utrgv.edu/cep](http://www.utrgv.edu/cep) for more information.

- Shoot for a GPA of 4.0.
- "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 courses: CHEM 4305, UTCH 4601 and UTCH 4101.
- 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 MyMajors.
- 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 MyMajors!
- Come ready with course suggestions and questions when you visit your academic/UTeach 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 Chemical 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 teachers preparation internship to complement chemistry teaching, such as Region-1 or local ISD.
- 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 ENGL -3351 Creative Writing I or become the secretary for your organization.

- Continue to present research or creative works at the Engaged Scholar Symposium or at regional ACS meetings or teachers related symposia or conferences offered by TEA
- 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 Chemistry Major Get Together.
- Join a student organization! Consider looking into Elliott Chemical Society or visit VLink ([utrgv.edu/vlink](http://utrgv.edu/vlink)) for options.

- Look at study abroad opportunities! Consider going to South America, Europe, Africa or Asia
- Check out a cultural campus or community event such as HESTEC or FESTIBA.
- Join another student organization. Perhaps an organization that aligns with your interest 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 Handshake icon: ([My.UTRGV.edu](http://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 Handshake!
- Check your UTRGV email for the daily Messenger- locate and attend one student workshop.

- Update your resume in Handshake 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 minor that would help in your career plans or meet a chemistry advisor for guidance.
- Explain to someone how your academic program aligns with your strengths and interests.

- Check out the Chemistry department website or Region-1 or local ISD for postings on career in science teaching.
- 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](http://studentloans.gov).

- Teaching educational
- Research
- Universities and colleges
- Medical and other professional schools
- Public and private schools, K-12

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)