

Welcome to the

Chemistry Major (BS)

in the College of Computational, Mathematical, and Physical Sciences

College Advisement Center

Website: <https://science.byu.edu/advisement>
Email: cmsadvising@byu.edu
Phone: 801-422-2674
Office: N-181 ESC

Chemistry and Biochemistry Department

Website: chem.byu.edu
Phone: 801-422-6268
Office: C-100 BNSN

Department Advisement – Valerie Maker*

Email: valerie.maker@byu.edu
Phone: 801-422-6269
Office: C-104 BNSN

Internship Coordinator – Richard Watt

Email: richard.watt@byu.edu
Phone: 801-422-2923
Office: C-210 BNSN

University Career Services – Anna Kennington

Website: careers.byu.edu (See Handshake flyer in packet)
Email: anna.kennington@byu.edu
Phone: 801-422-3000 to schedule an appointment
Office: C106 BNSN

Clubs

YChem: Wally Paxton, C303 BNSN, wally.paxton@byu.edu; 801-422-4917

Women in Chemistry: Pam Van Ry, C209 BNSN, pvanry@byu.edu, 801-422-1540

Cougs v Cancer: Cristy Welsh, MCDB 261, cancer_research@byu.edu, 801-422-3913

*Please visit Valerie Maker in the Chemistry and Biochemistry Department (C104 BNSN) as soon as possible if you have not already done so.

Learning outcomes can be found here: <https://learningoutcomes.byu.edu/Courses/program-courses/692821/Chemistry+BS+/1322>



Things to Know

Resources for Graduation Planning

- Flow Charts and Major Academic Plans (MAPs) can be found here: <https://science.byu.edu/advisement/explore-majors-and-minors>.
- Academic advisors in N-181 ESC will help you understand course sequencing and help you plan classes to efficiently fill requirements. They can also help you with study skills and initial career exploration as well as connecting you with correct resources.
- Plan and register from your plan on MyMAP. Your academic advisor can help you understand how to best utilize this resource.
- Evaluate your current program. Periodically major programs are updated. An academic advisor would be happy to review the differences between the programs with you to help you determine what would be best for you.
- Consider meeting with a faculty advisor in your department. Contact info is found on the first page of this packet.

Tutoring Resources and Research

- Volunteer peer tutors are available through Y Serve if you need help with a class. Also, if you excel in a subject, consider serving your fellow students by becoming a tutor. Find out more here: <https://tutoring.byu.edu/>.
- Many departments provide TA Tutorial Labs and research opportunities. Check your department for details:
 - Chemistry and Biochemistry: C-104 BNSN, 801-422-6261, <https://chem.byu.edu/department/faculty/>
 - Computer Science: 3361 TMCB, 801-422-3027, cs-office@byu.edu
 - Geological Sciences: S-389 ESC, 801-422-3918, geology@byu.edu
 - Mathematics: 275 TMCB, 801-422-2061, office@mathematics.byu.edu
 - Mathematics Education: A180 ESC, 801-422-1735, office@mathed.byu.edu
 - Physics and Astronomy: N-283 ESC, 801-422-4361, physics_office@byu.edu
 - Statistics: 2152 WVB, 801-422-4505, statsec@stat.byu.edu

Prepare Early for a Career

- Check out Careers & Experiential Learning in 1134 WSC and at careers.byu.edu.
- Consider doing an internship.
 - Attend the STEM and Career Fairs held in fall and winter semesters.
 - Talk to your department about internship opportunities.
 - Use LinkedIn and Handshake (see flyer in this packet) to connect with alumni and apply for jobs/internships. BYU Connect is another great resource for networking (connect.byu.edu).
 - Talk with the college Career Director who can help you search for internships as well as assist you with many other career related strategies (see first page of this packet).
- Consider taking StDev 317 (Career Strategies) your junior year.
- Consider taking either Chem 502, CS 502, Geol 502, Math 502, PHSCS 502, or STAT 502 (1-credit Networking Class). Class is held for 1 hour each week.

BYU Chemistry BS

Requirements / Prerequisites 2025-2026 Academic Year

Major (76 Hours)

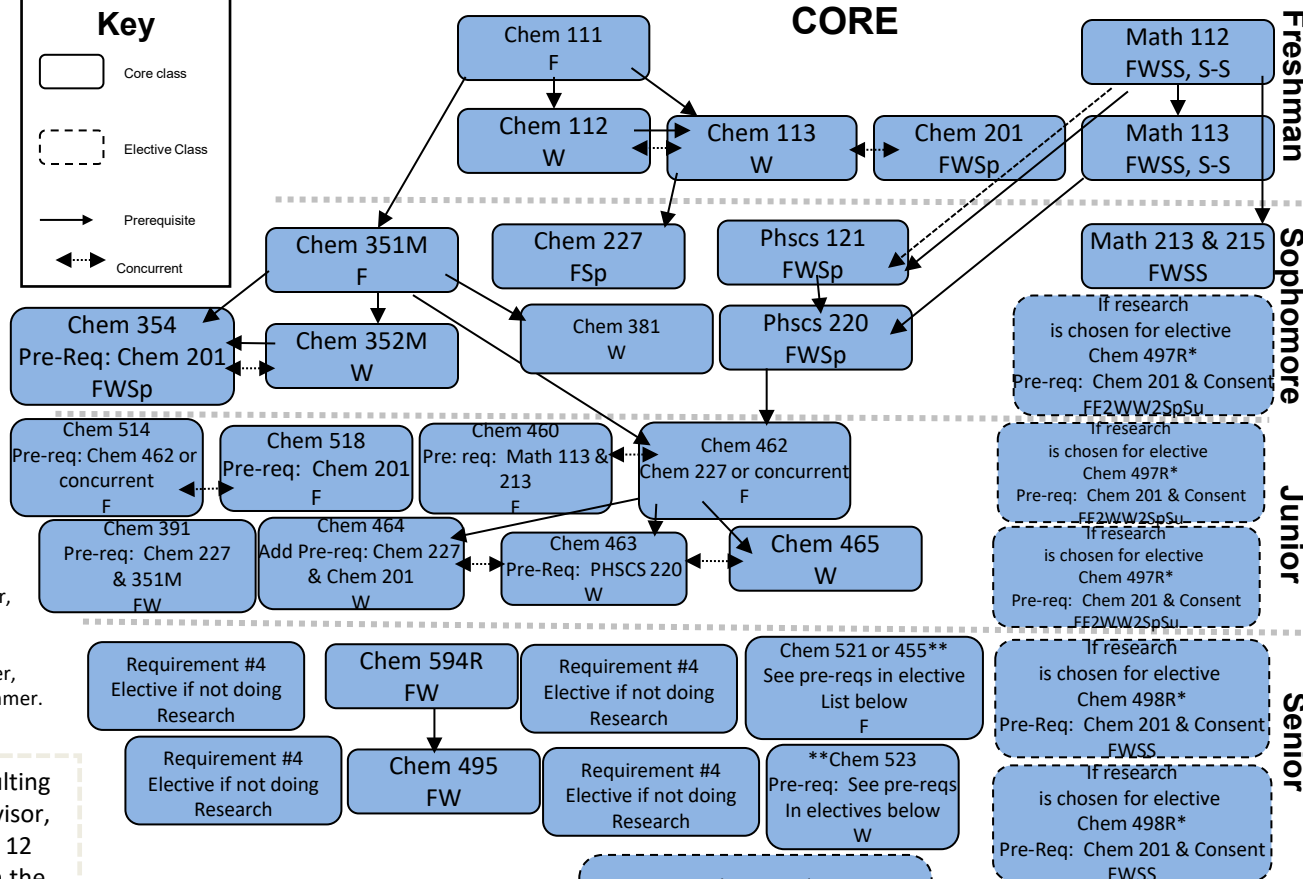
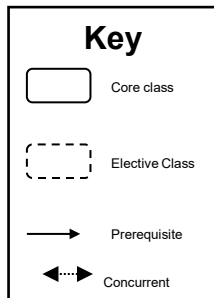
- Complete the following: Chem 111, Chem 112, Chem 113, Chem 201, Chem 227, Chem 351M, Chem 352M, Chem 354, Chem 381, Chem 391, Chem 460, Chem 462, Chem 463, Chem 464, Chem 465, Chem 495, Chem 514, Chem 518, Chem 594R
- Complete the following: Math 112, Math 113, Math 213, Math 215, Phscs 121, Phscs 220
- Complete either Chem 455 or Chem 521 & 523.
- After consulting with an advisor, complete 12 hours from the following: Bio, 130, Cell 120, Chem 384, Chem 397R, Chem 455, Chem 482, Chem 483, Chem 496R, Chem 498R, Chem 521, Chem 523, Chem 552, Chem 553, Chem 555, Chem 563, Chem 565, Chem 567, Chem 569, Chem 581, Chem 584, Chem 586, Chem 596R, HONRS 499R, Phscs 123

Minor (20.5-21.5 Hours)

- Complete one of the following options:
 - Chem 111, Chem 112, Chem 113.
 - Chem 105, Chem 106, Chem 107.
- Complete two courses from the following: Chem 351, Chem 352, Chem 357, Chem 462, Chem 463, Chem 467, Chem 468, Chem 481.
- Complete Chem 201.
- Complete two hours from the following: Chem 353, Chem 354, Chem 355, Chem 464, Chem 465.
- Complete 1 of the following courses: Chem 227 or Chem 455.

F=Fall, W=Winter,
Sp=Spring,
Su=Summer, S-
S=Spring-Summer,
SS=Spring & Summer.

After consulting
with an advisor,
complete 12
hours from the
following to
fulfill
requirement #4.



***Bio 130 or CELL 120**
FWSp (depending on class)

CHEM 384
Chem 201 & Chem 227
Concurrent with Chem 381
See department

Chem 397R
Pre-req: Chem 111, Chem 112, & Chem 113
When taught: Contact Dept

Chem 455
Pre-Req: Chem 354 & Chem 201
F

Chem 482
Pre-Req: Chem 381 Or Chem 481
E

Chem 483
Pre-Req: Chem 482
W

Chem 496R
Pre-req: Chem 201 & Instructor's consent
FWSS

Chem 498R*
Pre-Req: Chem 201 & Consent
FWSS

Chem 521
Pre-Req: Chem 462 & PHSCS 220
E

Chem 523
Pre-Req: Chem 201 & 521
W

Chem 552
Pre-Req: Chem 352 (M), Chem 462 & Chem 463 (or 468)
F

Chem 553
Pre-Req: Chem 352(M)
W

Chem 555
F

Chem 563
Pre-Req: Chem 462 & Chem 463
Contact Department

Chem 565
Pre-Req: Chem 462
W

Chem 567
Pre-Req: Chem 462 & 463
Contact Department

Chem 569
Pre-Req: Chem 462 Chem 467, or Chem 468
E

Chem 581
Pre-Req: Chem 482
E

Chem 584
Pre-Req: Chem 227, Chem 381M, & Chem 384
F

Chem 586
Pre-Req: Chem 584
W

Chem 596R
Pre-Req: None,
Contact Department

Honrs 499R
FWSS

PHSCS 123
Pre-req: PHSCS 121, Calculus
FWSp

With approval, certain 300-level and above courses in allied fields of physics, statistics, engineering, and biology

*Enrolling in CHEM 497R and 498R gives students an opportunity to be mentored in a faculty's research lab and receive class credit. Enrollment in 497R can be repeated for several successive semesters, usually followed by 498R. Permission is required from the faculty member. Contact the department office for specific details.

Please note: When Taught is subject to change. Only one course from Bio 130, Cell 120, or phscs 123 may be used. Guide only—please consult MyMAP for full requirements.

** Take either Chem 521 & 523 or 455 for the required class(s). The other course(s) may be used towards the 12 credits of electives.



BYU's own job board. Employers who want to hire BYU graduates or offer internships to current students post job openings to this website and students apply. Just like LinkedIn, employers can view student profiles and students can network as they apply for jobs and internships



Login to handshake.byu.edu >>> **BYU Net ID**

*you do not need to create an account, just sign in with your BYU information

HOW TO MAKE THE MOST OUT OF HANDSHAKE:

1. COMPLETE YOUR PROFILE

- Upload your resume and it will auto-fill in your profile
- Completed profiles tailor your Handshake experience
- Information from your transcript is already uploaded
- Fill in the Summary/Bio section
- Fill in your past jobs and experiences, including all the bullet points you use on your resume
- Add a professional headshot and background photo

Remember: every word in your profile will be searchable by students and employers

4. EXPLORE FELLOW STUDENTS

- "Students" tab
- Search for fellow BYU students to view their profiles and job positions.

5. ATTEND EVENTS

- The "Events" tab will be your key to attending info sessions, interviews, and Career Fairs
- The "Calendar" tab under "Events" will show you what events are coming soon
- Make sure to save events you are interested in or RSVP so you do not forget to attend
- Spread the word to your friends on social media

6. DOWNLOAD HANDSHAKE APP

- Search: "Handshake" not "Handshake Career Services"
- Input your BYU e-mail address: netID@byu.edu (it will forward emails to the e-mail you have on file with BYU)
- Handshake will send you a link via e-mail to enable your account in the app
- Navigate the app to perform all the functions of the website that have been previously mentioned

7. VISIT THE CAREER STUDIO

- Freshen up your resume, cover letter, or LinkedIn
- Receive networking help
- Practice interviewing with a mock interview
- Meet with a full-time Career Director in your field

8. GET A JOB, RING THE BELL

- Once you're hired, stop by the Career Studio to ring our Victory Bell and get a picture for the Victory Board



employers are
5X MORE LIKELY
to view a profile that has
at least one job/skill/organization

2. APPLY FOR JOBS

- Search for job titles, employers, or skills
- Apply for interesting jobs that meet your skill set

3. RESEARCH COMPANIES

- Under the "Jobs" Tab there is an "Employers" Tab
- Search for keywords or locations to find companies that are the right fit for you
- Plan to attend their info sessions on BYU Campus, connect with them at Career Fairs, or set up informational interviews to learn more

Remember: when looking at companies or jobs, Handshake will tell you what other BYU students have worked there. Use this resource to network and discover more information!

Possible Careers

Chemistry and Biochemistry majors

(Not a comprehensive list)

*Usually requires a graduate degree

Agricultural engineer	Lab safety manager	Physiologist*
Agricultural research	Medical Doctor*	Process chemist
Agronomist*	Medical Physician*	Professor*
Biotechnologist	Microbiologist*	Prosthetist and orthotist*
Chemical hygiene officer	Neurologist*	Quality assurance & control manager
Chemical safety engineer	Nuclear physicist*	Regulatory compliance officer
Chemist	Nurse/Nurse Practitioner*	Respiratory therapist
Dentist*	Orthodontics*	Sanitation engineer
Environmental chemist	Paleontologist*	Surgeon*
Environmental health & safety technician	Patent examiner	Surgical technologist
Forensic scientist	Patent lawyer*	Technical sales & marketing rep
Health physicist*	Peptide chemist*	Toxicologist*
Independent consultant	Perfusionist	Urologist*
Industrial chemist	Pharmacist*	Veterinarian*
Industrial manager	Phlebotomist	Veterinary technician
Internist*	Physiatrist*	Zoologist*
Junior high or high school teacher	Physical therapist*	
Lab Researcher	Physician assistant*	
	Physician executive*	
	Physician scientist*	

For a more comprehensive list, scan here:



Companies that have hired our graduates

Neutraceutical, International	ThermoFisher Scientific	Northrop Grumman
Schlumberger	NIH	Jacobs
IBC Advanced Technologies	Beyond Labz	Clorox Company
MoxTek	Pfizer	Edwards Life Sciences
NuSkin	Eli Lilly	Octant
Millenniata	Intel	Huntsman Cancer Institute
Intel	Recursion	DOE National Labs