

Welcome to the  
**Chemistry Major (BA)**

in the College of Computational, Mathematical, and Physical Sciences

College Advisement Center

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

Chemistry and Biochemistry Department

Website: [chem.byu.edu](http://chem.byu.edu)  
Phone: 801-422-6268  
Office: C-100 BNSN

Department Advisement – Valerie Maker\*

Email: [valerie.maker@byu.edu](mailto:valerie.maker@byu.edu)  
Phone: 801-422-6269  
Office: C-104 BNSN

Internship Coordinator – Richard Watt

Email: [richard.watt@byu.edu](mailto:richard.watt@byu.edu)  
Phone: 801-422-2923  
Office: C-210 BNSN

University Career Services – Anna Kennington

Website: [careers.byu.edu](http://careers.byu.edu) (See Handshake flyer in packet)  
Email: [anna.kennington@byu.edu](mailto: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](mailto:wally.paxton@byu.edu); 801-422-4917

**Women in Chemistry:** Pam Van Ry, C209 BNSN, [pvanry@byu.edu](mailto:pvanry@byu.edu), 801-422-1540

**Cougs v Cancer:** Cristy Welsh, MCDB 261, [cancer\\_research@byu.edu](mailto: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/692827/Chemistry+BA+/1322>



# Things to Know

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## 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.

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## 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](mailto:cs-office@byu.edu)
  - Geological Sciences: S-389 ESC, 801-422-3918, [geology@byu.edu](mailto:geology@byu.edu)
  - Mathematics: 275 TMCB, 801-422-2061, [office@mathematics.byu.edu](mailto:office@mathematics.byu.edu)
  - Mathematics Education: A180 ESC, 801-422-1735, [office@mathed.byu.edu](mailto:office@mathed.byu.edu)
  - Physics and Astronomy: N-283 ESC, 801-422-4361, [physics\\_office@byu.edu](mailto:physics_office@byu.edu)
  - Statistics: 2152 WVB, 801-422-4505, [statsec@stat.byu.edu](mailto:statsec@stat.byu.edu)

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## Prepare Early for a Career

- Check out Careers & Experiential Learning in 1134 WSC and at [careers.byu.edu](https://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](https://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 BA

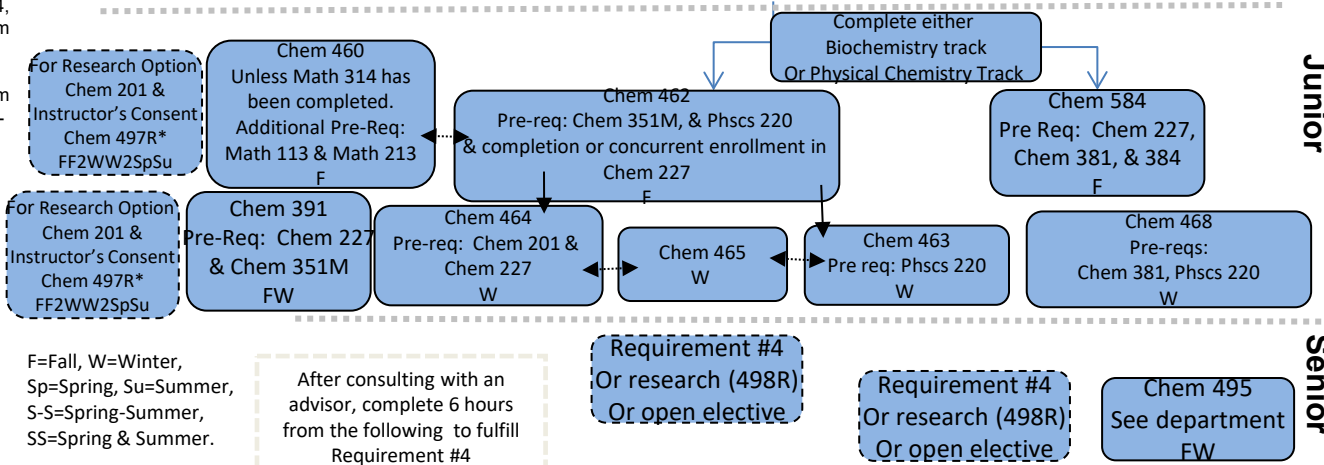
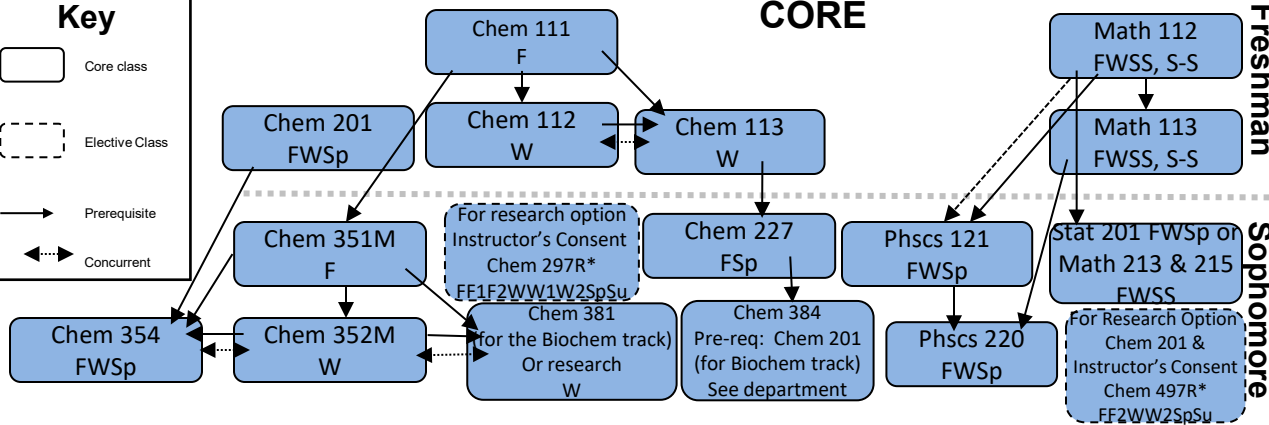
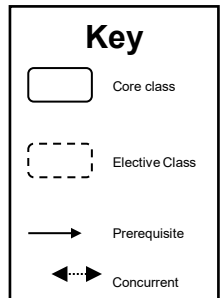
## Requirements / Prerequisites 2025-2026 Academic Year

### Major (57.5 Hours)

- Complete the following: Chem 111, Chem 112, Chem 113, Chem 201, Chem 227, Chem 351M, Chem 352M, Chem 391, Chem 495.
- Complete the following 14 hours: Chem 354, Chem 381, Chem 384, Chem 468, Chem 584, and complete either Stat 201 or Math 213 & 215. Or complete Chem 354, Chem 460, Chem 462, Chem 463, Chem 464, Chem 465, and Math 213 & 215.
- Complete the following: Math 112, Math 113, Phscs 121, Phscs 220
- After consulting with an advisor, complete 6 hours from the following: Cell 360, Chem 355, Chem 381, Chem 384, Chem 397R, Chem 455, Chem 460, Chem 462, Chem 463, Chem 464, Chem 465, Chem 468, Chem 482, Chem 483, Chem 489, Chem 496R, Chem 498R, Chem 514, Chem 518, Chem 521, Chem 523, Chem 552, Chem 553, Chem 563, Chem 565, Chem 567, Chem 569, Chem 581, Chem 583, Chem 584, Chem 586, Chem 594R, Chem 596R, HONRS 499R, or with approval certain 300-level and above courses in biology, engineering, physics, and statistics.

Note: Elective courses must be different than required courses. Chem 355 cannot be taken if Chem 354 was taken for 2 credits. If 354 is taken for 2 credits, one credit may be used for electives.

\*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.



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

After consulting with an advisor, complete 6 hours from the following to fulfill Requirement #4

Guide only—please consult MyMAP for full requirements. Elective courses must be different from required courses.

|   |  |  |   |   |  |  |   |  |
|---|--|--|---|---|--|--|---|--|
| <b>Cell 360</b><br>Pre-Req: MMBIO 240 or Chem 381 or 481<br>FWSp                          | <b>Chem 397R</b><br>Pre-req: Chem 111, Chem 112, & Chem 113<br>When taught: Contact Dept | <b>Chem 463</b><br>Pre-Req: Chem 462 & Phscs 220<br>W            | <b>Chem 483</b><br>Pre-Req: Chem 482<br>W                               | <b>Chem 518</b><br>Pre-Req: Chem 514 & Chem 201 or 601<br>Or concurrent<br>F      | <b>Chem 553</b><br>Pre-Req: Chem 352 (M)<br>W  | <b>Chem 569</b><br>Pre-Req: Chem 462, Chem 467, or Chem 468<br>E       | <b>Chem 594R</b><br>Pre-Req: None<br>FW               | With approval, certain 300-level and above courses in biology, engineering, physics, and statistics may be taken to satisfy the requirement. |
| <b>Chem 355</b><br>Pre-Req: Chem 353<br>FWSS  | <b>Chem 455</b><br>Pre-Req: Chem 354 or Chem 353; Chem 201<br>F                          | <b>Chem 464</b><br>Pre-Req: Chem 462, Chem 201, Chem 227<br>W    | <b>Chem 489</b><br>Pre-Req: Chem 468<br>F                               | <b>Chem 521</b><br>Pre-Req: Chem 462, Chem 467, or Chem 468 & Phscs 220<br>F      | <b>Chem 563</b><br>Pre-Req: Chem 462 & Chem 463<br>Contact Department  | <b>Chem 581</b><br>Pre-Req: Chem 482<br>E                              | <b>Chem 596R</b><br>Pre-Req: None, Contact Department |  |
| <b>Chem 381</b><br>Pre-Req: Chem 351M<br>W  | <b>Chem 460</b><br>Pre-Req: Math 113, Math 213,<br>Concurrent: Chem 462<br>F             | <b>Chem 465</b><br>W   | <b>Chem 496R</b><br>Pre-req: Chem 201 & Instructor's consent<br>EWSS    | <b>Chem 523</b><br>Pre-Req: Chem 521 & Chem 201 or 601<br>W                       | <b>Chem 565</b><br>Pre-Req: Chem 462<br>Or Chem 467<br>W   | <b>Chem 583</b><br>Pre-Req: Chem 482<br>W                              | <b>Honrs 499R</b><br>FWSS                             |  |
| <b>Chem 384</b><br>Pre-Req: Chem 201 & Chem 227<br>& 381M or concurrent<br>See department | <b>Chem 462</b><br>Pre-Req: Chem 351 (M), Phscs 220, Chem 227 or concurrent<br>E         | <b>Chem 468</b><br>Pre-Req: Chem 381 Or Chem 481; PHSCS 220<br>W | <b>Chem 498R*</b><br>Pre-Req: Chem 201 and Instructor's consent<br>FWSS | <b>Chem 525</b><br>Pre-Req: Chem 352 (M) & Chem 462 & Chem 463 (or Chem 468)<br>E | <b>Chem 567</b><br>Pre-Req: Chem 462 & 463<br>Contact Department<br>Please Note: When Taught is subject to change. | <b>Chem 584</b><br>Pre-Req: Chem 384, Chem 227, & 381 or Chem 481<br>F | <b>Chem 586</b><br>Pre-Req: Chem 584<br>W             |  |

Updated 6/27/2025



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](https://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](mailto: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         |