

Biochemistry, PhD

LABIOCHPHD

Learn to solve biological problems with molecular tools. Become successful in an increasingly post-disciplinary scientific world with this program's distinct emphasis on structure, properties and synthesis from the molecular perspective in a biological context, allowing you to tackle complex challenges in and out of the lab.

Program description

Degree awarded: PHD Biochemistry

The PhD program in biochemistry through the School of Molecular Sciences provides students with the training they need to solve biological problems at the molecular scale and to be successful, independent scientists who can challenge current societal issues.

Students earning a doctoral degree in biochemistry are fully trained in all fundamental aspects of the discipline. Most also choose to join transdisciplinary teams that work on larger, mission-based contemporary problems in areas such as:

- biogeochemistry
- energy and sustainability
- fundamental chemical biology
- materials and nanoscience
- medicine and health
- structure function and dynamics

Students should visit the [prospective student site](#) to learn more about this doctoral program and the [graduate research page](#) to learn more about the advanced transdisciplinary research being conducted in the School of Molecular Sciences.

At a glance

- **College/School:** [The College of Liberal Arts and Sciences](#)

- **Location:** [Tempe](#)

Degree requirements

84 credit hours, a written comprehensive exam, an oral comprehensive exam, a prospectus and a dissertation

six graduate-level courses (12--18)

enrollment in a BCH 501/CHM 501 seminar (8)

BCH 792 Research (46--52)

BCH 799 Dissertation (12)

Additional Curriculum Information

The program consists of coursework and seminars selected by the student in consultation with the student's supervisory committee and based on the student's area of research. Qualifying exams consisting of a written comprehensive exam, an oral comprehensive exam and a prospectus are required to advance to candidacy. Students must successfully defend their dissertation during a public final oral defense. Students must also maintain a minimum GPA of 3.00 (scale is 4.00 = "A") or better.

Admission requirements

Applicants must fulfill the requirements of both the Graduate College and The College of Liberal Arts and Sciences.

Applicants are eligible to apply to the program if they have earned a bachelor's or master's degree in chemistry, biochemistry or a closely related field from a regionally accredited institution.

Applicants must have a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in the last 60 hours of their first bachelor's degree program.

All applicants must submit:

1. graduate admission application and application fee
2. official transcripts
3. personal statement
4. three letters of recommendation
5. proof of English proficiency

Additional Application Information

An applicant whose native language is not English must provide proof of [English proficiency](#) regardless of their current residency.

In addition to the admission application, applicants must complete an online supplemental application to the School of Molecular Sciences. The supplemental application is available 24 to 48 hours after submission of the admission application. The personal statement and contact information for the letters of recommendation are submitted as part of the supplemental application. Information about the supplemental application can be found on the department's website. Applications lacking a supplemental application are not reviewed.

Tuition information

When it comes to paying for higher education, everyone's situation is different. Students can learn about [ASU tuition and financial aid](#) options to find out which will work best for them.

Application deadlines

Fall

[expand](#)

Career opportunities

The doctoral program in biochemistry prepares students for professional careers in industry, government and academia. Professionals with training achieved in pursuit of a graduate degree in chemistry or biochemistry have opportunities in five general areas:

- academia (high school and higher education)
- entrepreneurship (consulting, startups)
- government (research, policy)
- industry (research and development, quality control)
- nonprofit (policy, public education)

In addition to specialized technical skills, graduates possess high-demand skills like critical thinking, teamwork and collaboration, time management and many others.

Some career examples include:

- chemistry lecturer
- drug discovery scientist
- government scientist
- pharmacology scientist
- research and development scientist
- research group leader
- science consultant
- university professor

The American Chemical Society also provides helpful resources and a more exhaustive list of possible careers on their website at <https://www.acs.org/careers/chemical-sciences.html>.

Contact information

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