Biochemistry (Medicinal Chemistry), MS

Set yourself up for sustained success in medical school, pharmacy school or other higher education in the health care professions by taking advanced graduate coursework, gaining research experience and earning both your BS and MS degrees in five years.

Program Description

Degree Awarded: MS Biochemistry (Medicinal Biochemistry)
Students earning an MS in biochemistry with a concentration in medicinal chemistry from the School of Molecular Sciences are trained in the fundamental aspects of the discipline while joining transdisciplinary teams that work on larger, mission-based contemporary problems in areas such as:

- fundamental chemical biology
- medicine and health
- structure function and dynamics

At a Glance

- College/School: The College of Liberal Arts and Sciences
- Location: Tempe

Accelerated Program Options

This program allows students to obtain both a bachelor's and master's degree in as little as five years. It is offered as an accelerated bachelor's plus master's degree with:

- Biochemistry, BS
- Biochemistry (Medicinal Chemistry), BS
Chemistry, BS
Molecular Biosciences and Biotechnology, BS

Acceptance to the graduate program requires a separate application. Students typically receive approval to pursue the accelerated master's during the junior year of their bachelor's degree program. Interested students can learn about eligibility requirements and how to apply.

Degree Requirements

30 credit hours including the required applied project (research paper) course (CHM 593 or BCH 593)

A minimum of 30 credit hours is required, including coursework, seminars, research, and an applied project consisting of a written research paper. Courses are selected by students in consultation with their supervisory committee based on the research area.

The Master of Science in biochemistry is awarded when the student has obtained a minimum cumulative GPA of 3.00 (scale is 4.00 = "A") in coursework, demonstrated quality performance in the laboratory and completion of the research project, completed and presented an approved research paper at an oral defense to the student's supervisory committee, and met all deadline dates and requirements set by the Graduate College.

A program fee in the amount of $300 per semester is required in addition to the normal tuition.

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.

Applicants interested in pursuing the accelerated degree program should review the requirements and submit a pre-application found on the School of Molecular Sciences website prior to submitting a formal Graduate Admission Services application to the degree program.

**Tuition Information**
When it comes to paying for college, 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)
- Spring (expand)

**Career Opportunities**
This program is intended for students who plan to continue their educational training in pharmacy or medical school or in a related field and want to expand their background knowledge in biochemistry before beginning their professional education.

Professionals with training achieved in pursuit of a graduate degree in chemistry or biochemistry have opportunities in five general areas: industry (R&D, quality control), academia (high school and higher education), government (research, policy), nonprofit (policy, public education) and entrepreneurship (consulting, startups). In addition to specialized technical skills, graduates possess vital, high-demand skills, such as critical thinking, teamwork and collaboration, and time management.

Some career examples include:

- chemistry lecturer
- drug discovery scientist
- high school teacher
- medical doctor
- medical lab technician
- pharmacist
- pharmacology scientist
- research and development scientist
- veterinarian

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](https://www.acs.org/careers/chemical-sciences.html).