



Arizona State University (Tempe campus)

Biochemistry (Medicinal Chemistry), BS

Study details

Course type: Bachelor's degree

Degree: Biochemistry (Medicinal Chemistry), BS LABCHMBS

Study mode: Full time

Duration: 48 Month

Cost of study

Cost : 35 430 USD

Reg. fee : 85 USD

Scholarship :

Insurance : 2 765 USD

Intake/s

Jan/May/Aug

Requirements

Academic requirements

First-year students must:

- Have a 3.00 grade point average (GPA) (a "B" or better where "A"=4.00) from a secondary school. Some ASU programs may have higher admission or English proficiency requirements and may consider a minimum ACT or SAT score.
- Must have three years of high school coursework. (If you are currently in high school, ASU needs to see 9–11 grade coursework. If you have completed high school, ASU needs to see 10–12 grade coursework.)
- Must have and present a completed high school diploma or certificate.

Conditional admission

ASU may offer conditional undergraduate admission to international applicants to an on-campus program who meet the academic (aptitude) requirements but who are not proficient in English. This offer of conditional admission will give you time to improve your English proficiency before you start classes at ASU. Your conditional admission offer is good for up to three semesters, during which time you must meet one of these requirements to begin your ASU experience.

Competency requirements

International students who completed high school outside the U.S. are required to meet the following competency requirements:

- Math: four years (algebra I, geometry, algebra II and one course requiring algebra II as a prerequisite).

- Laboratory science: three years total (one year each from any of the following areas are accepted: biology, chemistry, earth science, integrated sciences and physics).

Provide evidence of English language proficiency (TOEFL 61)

Accommodation

Provided by partner agencies

Speciality

STEM-OPT for international students on F-1 visas

This program may be eligible for an Optional Practical Training extension for up to 24 months. This OPT work authorization period may help international students gain skills and experience in the U.S. Those interested in an OPT extension should review ASU degrees that qualify for the STEM-OPT extension at ASU's International Students and Scholars Center website.

The OPT extension only applies to students on an F-1 visa and does not apply to students completing a degree through ASU Online.

Available online

Additional information

Program description

Students in the BS program in biochemistry with a concentration in medicinal chemistry gain in-depth understanding of basic chemistry, biomolecular properties and function, and mechanisms governing cellular function. They develop the knowledge required to apply chemical and biochemical principles to drug design and functionality, with a specific focus on medicinal chemistry.

The curriculum comprises traditional coursework with a concentration in medicinal chemistry, combining lectures and laboratory sessions to provide a strong foundation in chemistry and biology. The program emphasizes the application of chemical and biochemical thinking to the design and mechanisms of medicines.

Students are encouraged to participate in faculty research groups and labs, offering hands-on research experiences in the field of medicinal chemistry.

Concurrent program options

Students pursuing concurrent degrees (also known as a “double major”) earn two distinct degrees and receive two diplomas. Working with their academic advisors, students can create their own concurrent degree combination. Some combinations are not possible due to high levels of overlap in curriculum.

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 (Medicinal Chemistry), MS
- Computational Life Sciences, MS

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.

Global opportunities

Global experience

Each of the more than 300 Global Education program options provides an opportunity for students to develop a valuable skill set that can give them an advantage in career and personal enrichment. Studying abroad helps students build cultural competency skills as well as heightened skills in communication, critical thinking and leadership that allow them to stand out on their graduate school applications.

Whether in a foreign country, in the U.S. or online, Global Education programs encourage students to build communication skills, challenge them to adapt and persevere, expose them to differences across the world and increase their ability to work with diverse groups of people. Students earn ASU credit for completed courses while staying on track for graduation.

Career opportunities

A solid undergraduate education in biochemistry with an emphasis in medicinal chemistry provides the necessary background for career paths in chemical, medical, pharmaceutical and biotechnology industries and for careers in governmental regulation, health care, research and other areas.

Many students who intend to apply to medical school take biochemistry with a medicinal chemistry emphasis in order to make their applications more competitive, and this degree program is ideal for such students. The program provides excellent preparation for advanced graduate study in biochemistry, pharmaceuticals, pharmacology and toxicology, as well as for careers in drug design and pharmaceuticals, medicine and health, research, food production, environmental protection and several other technical fields.

Students planning careers in medicine, dentistry, pharmacy, veterinary medicine or research in these or related fields also often pursue the medicinal chemistry concentration with supporting work in biology and chemistry as the route for pre-professional training.