Computational Life Sciences (Graduate Certificate)

Join in the transformation that new types and amounts of data are bringing to the life sciences. You can learn computational methods that complement traditional bench-based approaches, allowing you to arrive at novel insights, and you'll gain the knowledge and skills you'll need when applying computational techniques in life sciences research.

Program Description

Degree Awarded: Certificate Computational Life Sciences (Certificate)
Students in the computational life sciences graduate certificate program develop expertise in the understanding, interpretation and analysis of diverse data types generated from a variety of life sciences disciplines, including ecology, botany, evolutionary biology, neuroscience, molecular and cellular biology, and animal behavior.

At a Glance

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

Degree Requirements

16 credit hours including a portfolio
Required Core (1 credit hour)
BIO 610 Introduction to Responsible Conduct of Research (RCR) in Life Sciences (1) or
BIO 611 Current Topics in Responsible Conduct of Research (RCR) in Life Sciences (1)

Electives (15 credit hours)

Culminating Experience (0 credit hours)
portfolio (0)

Additional Curriculum Information
Elective coursework is selected from a restricted list in consultation with the academic unit.

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 life
sciences or 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, or applicants must have a minimum cumulative GPA of 3.00 (scale
is 4.00 = "A") in an applicable master's degree program.

Applicants are required to submit:

1. graduate admission application and application fee
2. official transcripts
3. written statement
4. proof of English proficiency

Additional Application Information
An applicant whose native language is not English must provide proof of English proficiency regardless
of current residency.

The written statement should discuss the applicant's future career goals, to better assist the student with
selecting the most applicable set of courses in computational life sciences.

International students who need an F1 or J1 visa first need to apply to and be accepted into a graduate
degree program prior to being considered for the certificate program. International students residing in the
U.S. on other types of visas must adhere to all Graduate College policies and procedures regarding
admission to be considered for admission to this certificate program.
Attend Online

ASU Online

ASU offers this program in an online format with multiple enrollment sessions throughout the year. Applicants may view the program description and request more information here.

Career Opportunities

Professionals with expertise in computational life sciences are in high demand in biotech and biomedical industries. Skills in data science are critical for the analysis and interpretation of life sciences data. These skills are valuable to businesses and institutions relying on data-driven life sciences research including hospitals, biotechnology companies and for-profit and nonprofit research institutions.

Career examples include:

- bioinformatics scientist
- computational lab technician
- core facilities researcher
- ecologist
- educator
- microbiologist
- natural sciences manager
- software developer

Contact Information

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