

∴ Check out new and upcoming developments in Biology! ∴

Biological Sciences B.A. | Ecology, Evolution, & Conservation Biology B.S. | Med-Ed Core Curriculum

Fall 2024 is nearly here!

...and we have some exciting developments in the Biology Program – new and upcoming – to showcase...

These classes are filling up, but there is still space. Sign up now!

- **BIO 154: Developmental Immunology**
Time. Location. Description.
- **BIO 149: Conservation Biology**
Time. Location. Description.
- **MSE 104/104L: Engineering Living Systems**
Time. Location. Description.

NEW!
Biological Sciences B.A.

Starting Fall 2024. The [Biological Sciences B.A. program](#) at UC Merced provides a versatile and interdisciplinary education, preparing students for diverse career paths in the biological sciences and beyond. Here are some key highlights of the program:

- Designed for a versatile and interdisciplinary education.
- Prepares students for multiple career paths in biological sciences and beyond.
- Explores a wide spectrum of biology, integrating insights from Chemistry, Physics, Mathematics, Engineering, Computer Science, Philosophy
- Provides flexibility to explore interests deeply and broadly.
- Allows you to major in biological sciences with a curriculum that offers alternatives to organic chemistry, accommodating diverse academic strengths.
- Examples of minors include but are not limited to:
 - *Data Science*
 - *Natural Sciences Education (NSED)*
 - *Psychology*

UPCOMING!

Ecology, Evolution, Conservation Biology B.S.

Starting Fall 2025. In an era marked by global ecological challenges and rapid biodiversity loss, the study of Ecology, Evolution, and Conservation Biology (EECB) has never been more critical and compelling. The 21st Century is witnessing an urgent need for individuals equipped to navigate and mitigate the complexities of environmental crises. The undergraduate majors in Ecology, Evolution, and Conservation Biology at the University of California, Merced, which include both B.S. degrees in *General* and *Pre-Health* tracks, will provide you a strong foundation in the intricate relationships within natural ecosystems, evolutionary processes, and conservation strategies vital for preserving our planet's biological wealth. Here are some key highlights of the program:

- Integrates disciplines of ecology, evolution, and conservation biology as interconnected and dynamic fields of study.
- Emphasizes data-driven ecological analysis, hypothesis testing in evolutionary biology, and practical conservation strategies.
- Learn theoretical frameworks and applied methodologies.
- **EECB General track** offers a comprehensive exploration of ecology, evolution, and conservation biology.
 - Gain a strong foundation in key disciplines with opportunities to specialize in Organismal Ecology, Conservation Practices, Evolutionary Biology
 - Tailor your studies to individual interests.
 - Prepare for diverse fields such as wildlife biology, conservation policy, biological research, and education.
- **EECB Pre-Health track** integrates the Med-Ed core coursework.
 - Prepares you for medical school applications and other health-related postgraduate pursuits.
 - Equips you to approach health sciences with an understanding of the interplay between ecological systems and health outcomes.
 - Specialize in areas such as public health, epidemiology, and infectious diseases.

- Use insights into population dynamics and evolutionary pressures to devise comprehensive approaches to disease transmission, outbreaks, and the impacts of environmental changes on health.

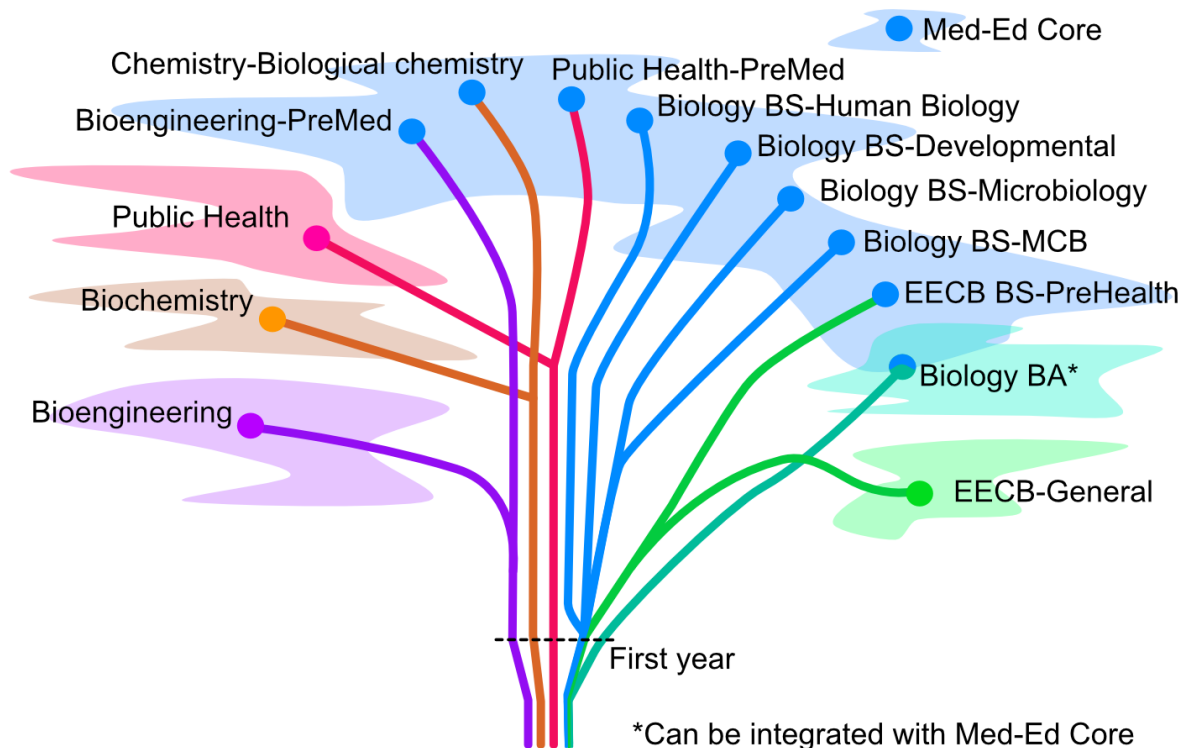
DID YOU KNOW?

Flexibility in *Emphasis Tracks & Majors*, and the many pathways to Medical/Health careers

Flexibility – Change your major or track within the biological sciences! Because the emphasis tracks in the Biology B.S. share similar Year 1 and Year 2 curricula, it is incredibly easy to change your emphasis track, particularly at the beginning of Year 2. Additionally, our new Biology B.A. and the upcoming Ecology, Evolution, and Conservation Biology (EECB) B.S. also share a similar Year 1 curriculum, allowing for easy change-of-majors between these different flavors of Biology. Why would you want to do this? Different majors and emphasis tracks within the biological sciences emphasize different skill sets. Some emphasize chemistry, others math, others data science, and others the social sciences. If you find that your particular interests and talents do not align with

your chosen pathway, but you would like to stay within the biological sciences, there are many options to consider: from the emphasis tracks within the Biology B.S. to the upcoming EECB B.S. to the large diversity of options available within the Biology B.A. Are you aiming for medical school or another career in healthcare? No Problem. There are pathways within the Biology B.A. and the EECB B.S., in addition to all emphasis tracks in the Biology B.S., that follow our Medical Education Core Curriculum...

Many pathways to a career in healthcare. Our [Medical Education Core Curriculum](#) provides the preparation you need for careers in medicine and healthcare, and there are many majors and emphasis tracks that follow it. See the range of majors/tracks following the Med-Ed curriculum [here](#), and illustrated in the *Pathway Tree* below. As you can see, there are many routes preparing you for medical school, nursing, the pharmacological sciences, or the multitude of other healthcare-related and healthcare-adjacent careers. Your mission, if you choose to accept it, is to find the path best aligning with your interests and talents to achieve the success in the career of your choosing. This message will self-destruct. ⚠



∴ Agora ∴

See below for BIO-related events and opportunities

- **Check out the Pre-health advising website!** | [LINK](#) – Questions about pathways into health careers? UC Merced has specialized advising and resources positioned to help you find your way through the diverse array of possibilities.
- **Are you ¿Field Curious?** | [LINK to sign up for the interest list](#) – Find out more by joining a no-cost weekend field research experience at either Yosemite or Sequoia National Parks. This program is offered through the UC Merced Natural Reserve System and is open to all UC Merced undergraduate students, any year, any major, no experience necessary.
- **INSITE Opportunities: Summer Research Training and Outreach Intern Positions** | [LINK](#) – We are currently experiencing a rapidly changing climate, which poses a threat to animal species that rely on complex relationships with microbes for vital benefits. To investigate how these interactions will adapt to various climate scenarios, we have established the NSF Biological Integration Institute, INSITE — The Institute for Symbiotic Interactions, Training, and Education in the Face of a Changing Climate. INSITE unites a multidisciplinary team from the University of California Merced and Michigan State University. Our goals include advancing model systems to predict environmental responses, training interdisciplinary researchers, and educating K-12 students and the public on the importance of symbiosis in biodiversity conservation. **We offer undergraduate opportunities such as the INSITE Undergraduate Summer Research Training Program and an Outreach Intern position.** FOLLOW US for more: at bii-insite.org and on social media [@insite_nsf_bii](#)
- **ECCLPs UC-CSU Research Internship Program** | [LINK](#) – The one-year academic internship program aims to prepare undergraduate students for an introduction to and overview of research practices. Participants will receive structured training and hands-on experience to hone their skills in research methodology, data analysis, and report writing. By immersing themselves in regional initiatives and policies, interns will contribute to a comprehensive understanding of the subject. The program not only cultivates future research leaders but also encourages collaboration and knowledge sharing among stakeholders.
- **Neuroscience Major, launching Fall 2025** | [LINK](#) – The study of neuroscience stands as one of the most dynamic and challenging fields in contemporary scientific exploration. By delineating the intricacies of the human brain and describing its interactions with the body and the world around it, neuroscience has the potential to unlock new frontiers of knowledge and inspire groundbreaking advances in medicine, technology, and beyond.
- **Biochemistry Major, launching Fall 2025** – Students majoring in Biochemistry at UC Merced will pursue a highly interdisciplinary understanding of biology at the scale of atoms to molecules with a level of depth and rigor that is not provided by programs in either Chemical or Biological Science majors. The program develops students' fundamental knowledge of biochemical principles, and provides training in cutting edge experimental techniques, data analysis and computational methods, and effective scientific communication. A degree in Biochemistry opens the door to a wide variety of careers in fields where the ability to leverage the exponential growth of available biological data and to extract meaningful biochemical insights from this vast sea of information is critical, such as in medical research, biotechnology, and environmental health.