



Department of Biology & Chemistry

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Majors & Minors & Courses

If you have any other questions related to this topic, then Ana Vega is a great resource. She is the academic advisor dedicated to the Biology Majors and Chem Minor. anavega2@csumb.edu

As a biology major what are the mandatory classes do you have to take in order to become a biology major? If you are admitted to CSUMB, then it is likely that you can be a Biology Major.

What is a unit? In order to graduate with one major in 4 years a student needs to take 30 units per year (15 per semester). Many lecture classes are 3 units. These meet for 3 hours per week. 1 unit laboratory courses meet for 3 hours per week. You should expect to study about 2 hours outside of class for every 1 hour that you meet.

When are we required to pick our concentrations and declare a major or minor? What is the process?

The official policy is here: <https://csumb.edu/policy/policy-declaration-majors-and-minor-programs> and a planning website is here: <https://csumb.edu/planning/declare-or-change-your-major>

You need to declare your major and concentration by the time you get to 60 units so that you can be appropriately advised. The sooner the better so that you get good advising. You can declare a minor right up until your final semester as long as you can still graduate without going over 144 units. You need to meet with Ana (anavega2@csumb.edu) to do this. If you want to change your major after earning 90 units you will need special approval to make sure you can still graduate with 144 units.

You can take any minor on campus as a Biology Major. Some majors are encouraged by some concentrations and they can meet upper division elective requirements. I put links to all of the minors at the end of this document (including one for Human Development and Family Studies which was specifically asked about).

Would it be the same for applying for a double major? To declare a double major you will need to meet with an advisor to get approval from both departments.

If I wanted to double major, would I have to spend an extra three semesters, or would it be possible to just take more credits at one time?

To graduate in 4 years with a double major a student must take about 36 units per year (16-17 per semester). Students can also take some classes over the summer, or at a local community college, or come in with AP credits. To figure out if your classes transfer you can check at assist.org and work with Ana should it not be listed there. If you are doing well, then you are allowed to take more units. One way to get done ahead of time is taking summer classes at a local community college, or to get AP credits during HS. I recently had a student double major in Kinesiology & Biology. It took her one extra semester, but she graduated magna cum laude. Students can do a double major but in most cases, a major plus a minor will get students to where they need to go without spending an extra three semesters as an undergraduate.

As a transfer student, would an academic advisor be able tell me what classes I would need to graduate for my BS in Bio? To figure out if your classes transfer you can check at assist.org and work with Ana should it not be listed there.

I'm taking a botany class at my community college. How do I know if this class is equivalent to a required course or elective to CSUMB? Check assist.org or ask Ana.

Research, Internships and Jobs

Are there biology jobs or internships available from CSUMB? As a transfer student, how would I begin looking into undergraduate research opportunities in the Biology department?

Is UROC also where we can look into research being done in the biology department? For example, to learn more about the labs. In which ways does the department of biology collaborate with other labs?

For jobs doing research you can start here: <https://csumb.edu/uroc>

Or you can reach out to any faculty members who are doing research you find interesting. See here: <https://csumb.edu/biologychemistry/research-labs> If you want to do Ecology Research you could check out our newly hired Dr. Liz Alter or speak to Dr. Gerick Bergsma (they are not listed on that site yet. He does a lot of Ecology type Course-based Undergraduate Research Courses.).

You can also do other work on campus, or for the department (like tutoring, serving as a Resident Assistant, etc). Those jobs are listed on the link on this page called "[Otter](#)



[Jobs](#)". You cannot apply for these until after you have your CSUMB email, and so keep that idea for later.

Does research integrated into a college course have the same value on a resume as research outside of class like you describe here?

Yes. The work can be published. Many students use the research as a capstone project.

Careers After College

Do you have NOYCE Scholars in the teacher program?

One of our faculty members Dr. Corin Slown even has a NOYCE grant right now. If you want to email her to discuss this, then send direct questions to her at cslown@csumb.edu

Can I get pre med prerequisites as a Biology Major in the molecular biology concentration?

Yes. The curriculum matches the entrance requirements for medical school. We even offer a Health Science Service Learning Class specifically for you. There is a local chapter of the American Medical Student Association. If you want to join their email is amsa@csumb.edu If you are premed we can allow you to Minor in Spanish so that you can help serve the community upon graduation. Our newly offered Masters in Physician Assistant program requires students to become bilingual.

What should you focus more on if you want to be become a vet? Are there pre-vet programs at Cal State Monterey?

You could either be in the Ecology, Evolution and Organismal or the Molecular Biology Concentrations if you are interested in going into Veterinary Medicine. Not a specific program, but we have a pre-vet student club, and our classes would prepare you for vet school. Near campus we have a site where many service learning students go call Christine Marie Star Riders. It serves disabled students with horse therapy. Students can get large animal handling experience. There is also the Monterey Bay Aquarium, and the SLEWTHS program, an SPCA and other places students intern.

What should I focus more on if I want to become a wildlife biologist?

The Ecology, Evolution and Organismal Biology Concentration is great for this field of work.

Would you recommend a minor if I were to want to go into the parks and rec services?

The Ecology, Evolution and Organismal Biology Concentration is great for this field of work, and if you teamed it with a Minor in ESTP, or Spanish then you would be a strong candidate.

If I want to be a forensic pathologist would majoring in biology be a good choice for me?

Yes. I have had a student do this previously. One of my current students is currently working with the County Coroner as that is her goal. I had a previous student who did an internship with the autopsies of animals at UC Davis for his preparation. You may want to major in BIO and minor in chemistry to go into this.

What branch of biology should I focus on to become a laboratory technologist or biomedical engineer?

Molecular Biology concentration, or else a Chemistry Minor with one of the other concentrations would suit you well for this career pathway. I have had students go directly to Sakata Seeds, Enza Zaden, Monterey Bay Analytics, and biotech firms in the bay area. I have several students right now who are interns at the County Environmental Health Department helping test for COVID-19.

Do you have pictures of the classrooms?

This is a Chemistry Lab in Chapman Science Center Room E340





This is a Physic Laboratory in Chapman Science Center Room E140



This is the largest lecture hall on campus it is in the Tanimura and Antle Library Room 1188. This is taken from the back of the room.



This is in the BIT Building room 223. We have upper division lectures and lower diving discussions in rooms of this size.



This is the second largest lecture hall on campus. It is in BIT 104. This is taken from the back of the room.





This room is in Harbor Hall, which is one of the buildings that was remodeled after the Army closed Fort Ord. It has lower division writing classes and upper division lectures.



Minors at CSUMB

- [Anthropology, Minor](#)
- [Biology, Minor](#)
- [Business Administration, Minor](#)
- [Chemistry, Minor](#)
- [Chicanx Studies, Minor](#)
- [Cinematic Arts & Technology, Minor](#)
- [Communication Design, Minor](#)
- [Community Health Education, Minor](#)
- [Computer Science, Minor](#)
- [Creative Writing & Social Action, Minor](#)
- [Education, Minor](#)
- [Environmental Health Policy, Minor](#)
- [Environmental Science, Minor](#)
- [Environmental Studies, Minor](#)
- [Global Studies, Minor](#)

- [Health & Wellness, Minor](#)
- [Hispanic Cultures & History, Minor](#)
- [Human Development and Family Science, Minor](#)
- [Human Movement, Minor](#)
- [Humanities & Communication, Minor](#)
- [International Health Policy, Minor](#)
- [Japanese Culture & History, Minor](#)
- [Japanese Language & Culture, Minor](#)
- [Journalism and Media Studies, Minor](#)
- [Latin American Studies, Minor](#)
- [Mathematics, Minor](#)
- [Music, Minor](#)
- [Nonprofit Management, Minor](#)
- [Peace Studies, Minor](#)
- [Pre-Law, Minor](#)
- [Psychology, Minor](#)
- [Social Justice and Community Leadership, Minor](#)
- [Social Work, Minor](#)
- [Sociology, Minor](#)
- [Spanish Language & Hispanic Cultures, Minor](#)
- [Statistics, Minor](#)
- [Visual & Public Art, Minor](#)
- [Writing & Rhetoric, Minor](#)