

Major Offered Through:

CORVALLIS

CASCADES

Umpqua Community College

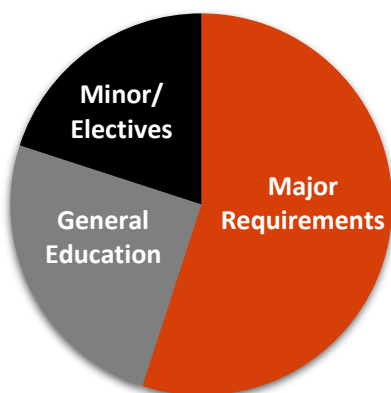
Biochemistry and Molecular Biology

The Biochemistry & Molecular Biology degree provides a degree path centered on the molecular basis of living systems with training in molecular genetics, biochemistry, and cell biology, as well as in rapidly developing areas such as bioinformatics. Majors must select an option either in Advanced Molecular Biology, Computational Molecular Biology, or Pre-Medicine. The first two options are designed for students interested in careers in the biotechnology and pharmaceutical industries or graduate work in the molecular life sciences, with the second especially well-suited for students interested in computational aspects of molecular biology. The third option is ideal for students interested in careers in medicine and related health professions.

Biochemistry & Molecular Biology Options (required)

- Advanced Molecular Biology
- Computational Molecular Biology
- Pre-Medicine

Your Bachelor's Degree (BS) in the College of Science



- A minimum of 180 credits are required for graduation; 60 must be upper division (300 and 400-level courses).
- A maximum of 135 transfer credits may be applied toward a bachelor's degree at OSU.
- Only courses with letter prefixes and numbers above 100 can be accepted.
- Options available. See "Important Notes".
- See the OSU Catalog for a list of courses required for your major and option: catalog.oregonstate.edu



Courses for this Major (Offered at Umpqua Community College)

This list is comprehensive. Speak with an OSU advisor for more information.

Priority courses to complete before transferring are distinguished by ^P

Biochemistry and Molecular Biology Core Requirement	UCC Equivalent Course	OSU Courses	Notes
Mathematics ^P	MTH 111Z, 112Z, 251Z, 252Z	MTH 111Z, 112Z, 251Z, 252Z	Math placement determines where students begin in math. Please speak to your UCC advisor.
General Chemistry ^P	CH 221Z/227Z, 222Z/228Z, 223Z/229Z	CH 221Z/227Z, 222Z/228Z, 223Z/229Z	
Principles of Biology ^P	BI 221Z, 222Z, 223Z	BI 221Z, 222Z, 223Z	Courses in Biology sequence now transfer course by course. Prior BI211, 212, 213 - need full year to transfer
Physics	PH 201, 202, 203	PH 201, 202, 203	
Organic Chemistry	CH 241, 242, 243	Satisfying ochem transfer requirement will fulfill BMB requirement for CH334, 335, 336, 337	Must pass the ACS organic exam offered as part of UCC course to receive upper division credit: https://chemistry.oregonstate.edu/undergraduate/transfer-students/organic-chemistry-transfer-policies#UGOCCC

Important Notes & Resource

Important Notes for the College and Major:

- Grade requirements: C- or better in all lower division math, biology, and chemistry coursework.
- See a sample degree plan here: [Biochemistry and Molecular Biology Sample Plan](#)
- For more information on the Biochemistry and Molecular Biology major see here: [More information](#)
- Option required. Select from: Advanced Molecular Biology, Computational Molecular Biology and Pre-Medicine
- Other similar majors to explore: Biochemistry & Biophysics and Biology with a Genetics option
- Math, Chemistry, Biology and some Core Education are priority courses to complete before transferring to OSU.
- For Biochemistry & Molecular Biology students, the best time to transfer is fall term, particularly due to the required three term science series courses.
- It is important to speak with your College of Science Transfer Advisor early on, and often, to ensure correct course selection and sequencing.

Resources and OSU Information:

- Students do not have to complete a transfer degree in order to transfer to OSU.
- If you've completed the Oregon AAOT or ASOT, all lower division Core Ed requirements are considered complete except for Synthesis Courses and Writing Intensive Courses.
- If you've completed to CTM (Core Transfer Map) or an MTM (Major Transfer Map), all lower division Core Ed requirements are considered complete except Difference, Power and Oppression Foundations.
- Preparing to apply to OSU? See admissions info: transfer.oregonstate.edu/applying-oregon-state-university
- Want to take classes at both OSU and an Oregon community college? Check out the Degree Partnership Program: partnerships.oregonstate.edu/students
- Visit OSU for a campus tour and meet with an advisor; schedule your visit at visitosu.oregonstate.edu
- Find more transfer student resources at transfer.oregonstate.edu.

Core Education Requirements

- Please note, Core Education ("Core Ed"), include the general education requirements for students admitted to OSU Summer 2025 and onward. Students admitted Spring 2025 and earlier should refer to the Baccalaureate Core and/or their advisor for guidance.
- For full listing of courses that fulfill Core Education requirements, please refer to <https://transfer.oregonstate.edu/oregon-and-hawaii-course-articulations> and search for the Oregon CC you are attending.

FOUNDATIONAL CORE	Writing Foundations	WR 121Z
	Arts and Humanities: General	Many options
	Arts and Humanities: Global	Many options
	Quantitative Literacy and Analysis	Fulfilled in major
	Communication, Media and Society	Many options
	Social Science	PSY 201Z or PSY 202Z recommended for pre-med option
	Scientific Inquiry and Analysis (2 courses)	Fulfilled in major
	Difference, Power and Oppression Foundations	Many options
SIGNATURE CORE	Transitions	SCI 300 in Fall or CORE 300 other terms (take at OSU)
	Difference, Power and Oppression Advanced	BB 332, BI 344, CH 380, or GEOG 333 (take at OSU)
	Seeking Solutions	Many options (take at OSU)
	Writing Elevation	WR 227Z at CC
	Writing Intensive Curriculum	BB 317 or BB 318 (take at OSU)

Advising Contacts

It is important to speak with your OSU academic advisor early on, and often, to ensure correct course selection and sequencing.

Academic advisors at your community college and OSU are available to answer your questions and assist you in creating a transfer plan. **See your community college advisor first and use this Transfer Guide to help you plan.** Also, consider meeting with an OSU transfer advisor (see email below) and visiting OSU to take a campus tour. See visitosu.oregonstate.edu/visit-campus to schedule your visit.

Umpqua Community College Advising	https://umpqua.edu/academics/academic-resources/academic-advising/
College of Science Transfer Questions	COS-TransferQuestions@oregonstate.edu
College of Science Science Success Center (for general questions)	sciencesuccess@oregonstate.edu 541-737-3854
OSU Biochemistry and Molecular Biology Website	https://biochem.oregonstate.edu/