SOAR Department of Biology



Dr. Jeremy Dodsworth BI-312 (office)

909-537-7396, jdodsworth@csusb.edu

Fall student hours: Mon. and Tues. 3:00 – 5:00 pm or by appointment

Today's agenda

- Introductions
- Advising resources
- Resources on the Biology Dept Website
 - www.csusb.edu/biology
- Information on the Biology BS major
- Registration for classes (computer lab)

Introductions

- Dr. Jeremy Dodsworth
 - Biology Dept. Chair
 - Office: BI-312 Phone: 909 537 7396
 - Email: jdodsworth@csusb.edu
- Teach microbiology, microbial ecology
- Research on microbes in hot springs
- I enjoy hiking, brewing beer making bread

What about you?

- What is your name?
- Where are you transferring from (if you are a transfer student)?
- What do you want to do with your Biology degree (plans after graduation)?





Beer during fermentation

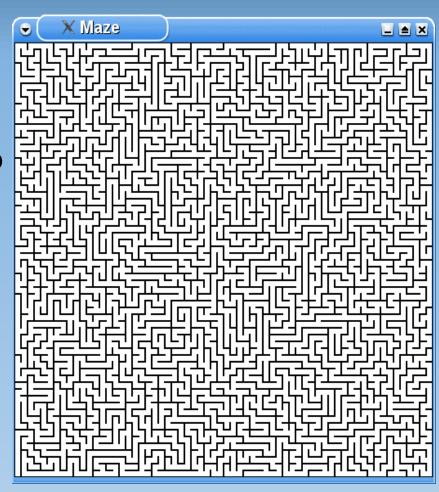
About advising in general

Some advising offices that may be useful to you...

- ASUA: Academic Success and Undergrad Advising
 - Works with all students; helpful for GE, general questions
 - https://www.csusb.edu/academic-success-and-undergraduate-advising
- **HPAC:** Health Professions Advising Center
 - Specialize in advising students that want to go to medical school, other professional schools (dentistry, pharmacy, etc.)
 - https://www.csusb.edu/health-professions-advising-center
- PATHS (also Science Success Center)
 - PATHS: Proactive Approaches for Training Hispanics in STEM
 - Have to have entered PATHS during your first term
 - https://www.csusb.edu/science-success-center/paths
 - https://www.csusb.edu/stem-center
- Other types of advising resources on campus: Instructors, faculty in your major, SAIL, ROTC, Athletics, financial aid, etc.

Advising is IMPORTANT!!!

- Universities like CSUSB are large organizations with complex bureaucracies!
- Career paths are also challenging to navigate!
- Biology faculty advising is important!!!
 - No assigned advisors in Biology
 - Visit who you want based on availability, interests
- Know who your advisors are and how to contact them!



What can Biology faculty advisors do for you?

- Focused attention on your major!
- Advice on upper division coursework
- Source for letters of recommendation
- Potential for undergraduate research opportunities
- Help with content knowledge in Biology
- Career advice in biology-related fields
- Feedback to the department
- Please see your faculty advisor during advising hours (office hours)!!!

Resources on Biology Dept. Website

- Department website (https://csusb.edu/biology)
 - Biology faculty advising hours (office hours)
 - Waitlist for BIOL courses with labs
 - Biology advising info and degree flowchart
 - For transfer students: Course transfer chart, www.assist.org
 - Student clubs, including...
 - Lambda Sigma Biology Club
 - Society for the Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS)
 - American Medical Student Association (AMSA)
 - CSUSB Pre-Dental Club
 - Student Society for Stem Cell Research (SSSCR)
 - Internships and research opportunities
- Course catalog (https://catalog.csusb.edu)
- Class schedule (https://csusb.edu/class-schedule)

https://www.csusb.edu/biology/undergraduate-program

B.S. in Biology degree requirements

Arrows indicate prerequisites

Completion of or enrollment in MATH 1401, 1403, 1601 or 2210

General Chemistry (Year 1)

CHEM 2100 + 2100L

CHEM 2200 + 2200L

2nd year Chemistry (Year 2): Choose from the following

CHEM 2400 + 2400L

CHEM 2500 + 2500L

01

Organic + Biochemistry CHEM 2300 + 2400L

CHEM 4100 + 4100L

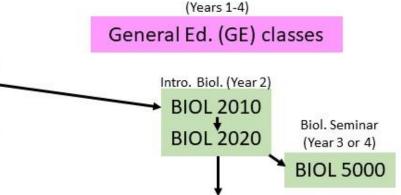
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Organic + Quantitative Chem. CHEM 2300 + 2400L

CHEM 3200

CHEM 3400 and 3500 can substitute for CHEM 2400 /2500 series, but are only recommended for Chemistry majors.

* One semester of Organic Chemistry (CHEM 2300, 2400, or 3400) is a pre- or co-requisite for most upper division BIOL courses.



Upper division Biology (Years 3-4). 29 units of BIOL 3100-5999*, including at least one course from each of Group A (3100-3399), Group B (3400-3699), and Group C (3700-3959) **

Group A (Cell/Molecular Biology) BIOL 3100¹, 3120¹, 3200, 3300

Group B (Organismal Biology)

BIOL 3400, 3410, 3420, 3430, 3440, 3450, 3460, 3470, 3480, 3520², 3540, 3560, 3630², 3640²

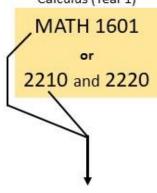
Group C (Populations and Ecosystems)

BIOL 3700, 3800³, 3820, 3880, 3900, 3950

Additional notes on upper div. Biology course pre- and co-requisites; please also see **

- 1 Requires completion of CHEM 2300, 2400, or 3400 with a "C" or better.
- 2 Only requires completion of BIOL 2020 (no other pre- or co-requisites).
- 3 Requires completion of MATH 2210.

Completion of MATH 1401, 1403, or suitable placement score Calculus (Year 1)



General Physics (Year 2 or 3):

PHYS 2000 + 2000L PHYS 2010 + 2010L

PHYS 2500+L, 2510+L, and 2700 can substitute for the PHYS 2000/2010 series, but are only recommended for Math, Physics, Computer Science, and Chemistry majors.

* Additional courses not in Groups A-C, BIOL 3960-5999 (excluding BIOL 5000), count towards upper division elective units; see course catalog or PAWS. ** Unless otherwise noted in "additional notes" below, Groups A-C BIOL courses require enrollment in or

completion of CHEM 2300, 2400, or

3400 (Organic Chemistry).

Lower division transferrable courses (assist.org)

STEM coursework that transfers to the Biology BS Program at California State University San Bernardino (2023-2024)

Course subject		General biology for STEM majors with lab ¹		General chemistry for STEM majors with lab		Organic Chemistry with lab ²		Calculus ³	General physics sequence with lab ¹		Alternate Physics sequence ⁴
STEM Classes for Biology majors at CSUSB		BIOL 2010	BIOL 2020	CHEM 2100 + 2100L	CHEM 2200 + 2200L	CHEM 2400+ 2400L	CHEM 2500 + 2500L	MATH 1601 or 2210+2220	PHYS 2000 + 2000L	PHYS 2010 + 2010L	PHYS 2500+2500L, 2510+2510L, 2700
Equivalent courses at various Community Colleges	Barstow Community College	BIOL 20A	BIOL 20B	CHEM 2A	CHEM 2B	CHEM 3A	СНЕМ ЗВ	MATH 4D or 4A+4B	n/a		PHYS 2A, 2B, 2C
	Chaffey College	BIOL 40	BIOL 62 BIOL 63	CHEM 24A	CHEM 24B	CHEM 76A	CHEM 76B	MATH 60 or 65A+65B	PHYS 30A	PHYS 30B	PHYS 45, 46, 47
	College of the Desert	BI 5	BI 6	CH 1A	CH 1B	CH 10A	CH 10B	MATH 9 or 1A+1B	PH 20A	PH 20B	PH 3A, 3B, 3C
	Crafton Hills College	BIOL 130 or 130H	BIOL 131 or 131H	CHEM 150	CHEM 151	CHEM 212	CHEM 213	MATH 141 or 250+251	PHYSIC 110	PHYSIC 111	PHYSIC 250, 251, 252
	Mt. San Antonio College	BIOL 8	BIOL 2	CHEM 50 or 50H	CHEM 51 or 51H	CHEM 80	CHEM 81	MATH 140 or 180+181	PHYS 6A	PHYS 6B	PHYS 4A, 4B, 4C
	Mt. San Jacinto College	BIOL 150 or 150H	BIOL 151 or 151H	CHEM 101 or 101H	CHEM 102	CHEM 112	CHEM 113 or 113H	MATH 135 or 211+212 (or 211H+212H)	n/a		PHY 201, 202 (or 202H), 203
	Riverside City College (incl. MVC and Norco)	BIO 60	BIO 61	CHE 1A or 1AH	CHE 1B or 1BH	CHE 12A	CHE 12B	MAT 5 or 1A (or 1AH)+1B	PHY 2A PHY 2B		PHY 4A, 4B, 4C, 4D
	San Bernardino Valley College	BIOL 205	BIOL 206 BIOL 207	CHEM 150	CHEM 151	CHEM 212	CHEM 213	MATH 141 or 250+251	PHYSIC 151	PHYSIC 152	PHYSIC 202, 203, 204
	Victor Valley College	BIOL 201	BIOL 202 BIOL 203	CHEM 201	CHEM 202	CHEM 281	CHEM 282	MATH 226+227 or (226H+227H) ⁵	PHYS 221	PHYS 222	PHYS 201, 202, 203, 204

- 1. Some community college course sequences do not articulate to CSUSB as individual courses. Regardless of whether courses have one-to-one transfer options or not, transfer students are strongly advised to complete their course sequences at their community college campus before transferring to CSUSB.
- 2. Biology students at CSUSB have different options for completing their 2nd year of chemistry requirement beyond a year of organic chemistry. Contact the CSUSB Biology Dept. for more information.
- 3. MATH 1601 or MATH 2210+2220 will be a new requirement for the 2023-2024 Catalog. For students starting in AY 2022-2023, you are only required to take MATH 2210 or its equivalent, but if you choose the more advanced math option you are strongly encouraged to complete two semesters of calculus (i.e., the MATH 2210+2220 or its equivalent).
- 4. This is usually for physics and engineering majors and is **NOT RECOMMENDED** for biology majors. If your college does not offer a two-semester Physics sequence, consider taking Physics at CSUSB.
- 5. There is currently (as of July 2024) no equivalent course for MATH 1061 at Victor Valley College, just for MATH 2210 and 2220.

Some important things to know: The Biology BS degree

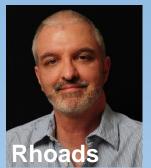
- Use our website! www.csusb.edu/biology
- Upper division elective requirements (29 units)
 - Doesn't include the BIOL 5000 seminar
 - DOES include many classes not listed in Groups A-C
 - Research or internship can count for some units
- Course substitutions: Talk to Department Chair, Dr. Dodsworth (esp. transfer students)
- Summer courses (few BIOL major courses offered)
- General Education (GE) requirements:
 - https://catalog.csusb.edu/general-education-program/
 - Also see ASUA advisor
 - Writing-intensive (WI), Global Perspectives (G), and Diversity and Inclusiveness (DI) general education requirements

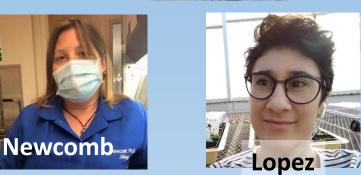
Biology faculty

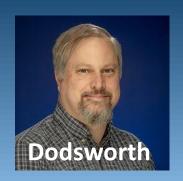


Williams











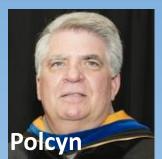


















Research opportunities!

Some research topics by Biology faculty

https://www.csusb.edu/biology/faculty-staff



























