

## BIEB 102 General Information, Winter 2023

**INTRODUCTORY ECOLOGY: ORGANISMS & HABITATS.** 4 units. BIEB 102 is an introduction to ecology with an emphasis on the principles that shape organisms, populations, and ecosystems. Topics to be discussed include population dynamics, adaptation to the physical environment, competition, predation, mutualism, and historical trends in human exploitation. We will delineate the climatic, biotic and human factors contributing to structure and function of ecological systems and discuss the types of natural and human-mediated disturbances that influence species persistence. BILD 3 is a prerequisite for this course.

**Professor:** Sara Jackrel

**Contact information:** Office hours Wednesday 3 – 4 pm in Muir 1138.

**Note:** Questions concerning exams and lecture materials are best addressed in office hours or discussion sections, not by email. For general inquiries, please email the course account at

[BIEB102Jackrel@gmail.com](mailto:BIEB102Jackrel@gmail.com). The course Gmail is monitored by Professor Jackrel and the course IAs, and is the fastest way to get in touch with us. For highly personal and/or sensitive matters, you can contact Professor Jackrel directly at [sjackrel@ucsd.edu](mailto:sjackrel@ucsd.edu).

**Lectures:** Tu-Th 3:30-4:50, TATA Hall 3201

**Course website:** The class will be run from the Canvas site ([canvas.ucsd.edu](https://canvas.ucsd.edu)). Important class announcements will be provided in class or on Canvas. **Check Canvas often** for discussion section information, reading assignments, lecture slides to download after class, etc. If you have not yet used Canvas, you can refer to the student help guides and videos, which are located on the left-side menu's help section (the question mark icon). Should you need any technical assistance with Canvas, please email [servicedesk@ucsd.edu](mailto:servicedesk@ucsd.edu). In the header of the email, please write "Canvas". Make sure to include your name, course title and section, as well as your contact information in the email body.

**Exams and Grading:** Each exam will be based on material for that section of the course up to the lecture preceding the exam. You will get to choose how you will be graded in this course by selecting one of the two options:

**Option 1- Exams only:** There will be 3 exams weighted equally (30%). Weekly quizzes given online through Canvas will be worth 10%.

**Option 2- Exams plus participation questions:** There are three exams, each worth 28% of your grade, plus weekly quizzes given online through Canvas worth 10%, for a total of 94%. The remaining 6% of your grade comes from participation in class with clicker questions. You will receive the full 6% if you answer at least 70% of the questions in 70% of the lectures. The clicker questions will be similar to the exam questions. The 30% buffer for missed questions is to allow for the possibility of forgotten clickers, battery failure, illness, etc., so please do not notify me or your IA to request an exemption in case of any of these events. To choose Option 2, register a clicker by the end of Week 3 and clicker points will automatically be included in your grade. If you do not register a clicker by Week 3, you will automatically be graded based on Option 1. If you register a clicker but do not participate in at least 70% of questions, you will automatically be shifted to Option 1.

**Regrade Requests:** Students wishing to have questions from exams re-graded must submit a written request specifying the questions of concern and a detailed explanation of the reason for the re-grade to the Instructional Assistant (IA) who graded the question within one week of the date the exam was returned to you.

**Missed Exams:** There are no make-up exams. If you miss a midterm or final exam, then you will be required to provide official documentation of an unavoidable emergency (e.g., serious illness, quarantine, etc.). Without such documentation, you will receive no credit for that exam. For a missed midterm with valid documentation, your final grade will be the average of the other midterm and the final. For a missed final exam **with** valid documentation, you will be expected to take the final orally or you will receive an incomplete for the course.

**Grades:** Your final letter grade will be based on your total percentage in the course. If you get over 90% you will receive a grade in the A range (A-, A, A+), over 80% you will receive a grade in at least the B range (B-, B, B+), etc. If needed to adjust the distribution of letter grades upward, grades will be based on a curve. The curve will only be used (if it is used) to move letter grade thresholds down, so it can only help your grade, not hurt it. For those taking the class pass/no pass (P/NP), the minimum final grade to receive a grade of P is a C-. The final course curve, if there is one, will be based on the students that are enrolled in the course at the end of the quarter.

**iClickers:** If you choose Option 2, you will need to bring an iClicker to lectures. A used one is fine. Older versions can be used as long as the remote ID can be read and the remote can be registered on Canvas. You cannot share an iClicker remote with another student enrolled in this class, but you can share with someone who is not in our class.

**Lectures:** You are expected to attend lectures Tu-Th 3:30-4:50 in TATA Hall 3201. Attending lectures is key to mastering the material, receiving the participation credit and hearing about important announcements. Do not expect to miss lectures consistently and be able to do well in this course. Lecture notes will be posted on Canvas at least 24 hours before each lecture, ***but essential material will be presented in class that does not appear on web-posted notes.*** Please turn off cell phones before each lecture. Lectures will be podcasted at [podcast.ucsd.edu](http://podcast.ucsd.edu).

**Textbook Readings:** There are recommended reading from the text each week. The text is not required but is on reserve at BML as an additional resource to help you understand the material. Most lecture material is reviewed in depth in your textbook. If you find a concept covered in lecture confusing, my first recommendation is to carefully read the section in your text describing this concept.

**Readings from the Scientific Literature:** Reading assignments from the primary literature can be found in Canvas. Exams will assess your broad understanding of the major conclusions from each scientific article. It is strongly recommended that you read articles in advance of discussion section so that any questions you have can be addressed during section.

**Quizzes:** Weekly quizzes will cover material from the past week of lectures. Quizzes will be given online through Canvas and will be available to take at any time up until Mondays at 11:59 pm. Therefore, your first quiz will cover lecture material from Week 1 and is due by the end of Monday of Week 2. Quizzes are open-note and open-book, but collaboration with your classmates is not permitted. Note that weekly quizzes are intended to encourage you to keep up with the material and will be largely recall based questions derived directly from lecture. However, expect exam questions to be more complex, require synthesis of ideas across lectures, and application of skills learned in class towards the interpretation of new data not yet introduced in lecture.

**Discussion Sections: Sections will meet starting the second week.** See Canvas for information regarding times and locations of discussion sections. Papers from the primary ecological literature will be discussed in section and tested on the exams. These papers will not be discussed fully in lecture, so be sure to attend section for discussion of the material. Papers will be posted on Canvas.

**Academic Dishonestly.** Students that commit academic dishonestly will receive an F in the course. Think carefully before you act by asking yourself: 1) is what I'm about to do or submit for credit an honest, fair, respectful, responsible & trustworthy representation of my knowledge and abilities at this time and, 2) would my instructor approve of my action? You are the only person responsible for your behavior, so, if you are unsure, don't ask a friend — ask your instructor, instructional assistant, or the Academic Integrity Office. For more information on academic integrity at UCSD, please see: <http://senate.ucsd.edu/Operating-Procedures/Senate-Manual/Appendices/2>

**Posting or selling course materials.** You should consider all lecture and course materials the same as copyrighted materials. You do not own these materials and therefore are not entitled to distribute any course materials on public websites like Course Hero. Students who are found to distribute any materials will be referred to the Academic Integrity Office.

**Enrollment questions.** Administrative, advising, or registration questions should be submitted via the Virtual Advising Center ([vac.ucsd.edu](http://vac.ucsd.edu)).

**Students with special circumstances.** UC San Diego, as an institution, and I, as the instructor of this course, are committed to full inclusion in education for all persons. Services and reasonable accommodations are available to students with temporary and permanent disabilities, to students with DACA or undocumented status, to students facing mental health issues or other personal situations, and to students with other kinds of learning needs. Please feel free to let me know if there are circumstances affecting your ability to participate in class. Some resources that might be of use include:

- Office for Student with Disability:

<https://students.ucsd.edu/well-being/disability-services/index.html>

- UCSD CAPS (Counseling & Psychological Services):

<https://wellness.ucsd.edu/CAPS/Pages/default.aspx>

- UCSD Undocumented Student Services:

<https://uss.ucsd.edu/>

Note: a list of campus resources can be found here:

<https://students.ucsd.edu/sponsor/undoc/resources/index.html>

- Learning Strategies Center:

<https://commons.ucsd.edu/academic-support/learning-strategies/index.html>

Students requesting accommodations and services due to a disability for this course will need to provide a current Authorization for Accommodation (AFA) letter issued by the Office for Students with Disabilities (OSD), prior to eligibility for requests. Receipt of AFAs in advance is necessary for appropriate planning for the provision of reasonable accommodations. OSD Academic Liaisons also need to receive current AFAs. For more information, contact the OSD at (858) 534.4382 (V); (858) 534-9709 (TTY); [osd@ucsd.edu](mailto:osd@ucsd.edu), or <http://osd.ucsd.edu>. You will need to coordinate scheduling of exams with me. All of these arrangements should be made within the first two weeks of the quarter.

If you are having academic difficulty, OASIS (<http://oasis.ucsd.edu/>) can often help. OASIS provides tutoring, as well as classes in study skills and time management. If you are having personal difficulties, do not hesitate to seek help at Counseling and Psychological Services (CAPS): (<https://wellness.ucsd.edu/CAPS/Pages/default.aspx>), which is free to students. They can help you get over many types of hurdles.

**Other Problems or Concerns.** If you have serious medical or personal problems during the quarter, the university allows medical withdrawals. Contact the Biology Student Affairs Advising Services office at 858-534-0557 or go to their website.

Lecture & date	Subject	Chapters in text*
Tues 10 Jan	1. Course overview: what is ecology?	1
Thurs 12 Jan	2. Physical environment & productivity	2,20
Tues 17 Jan	3. Niches & biomes	3, 21
Thurs 19 Jan	4. Nutrient cycling I: nutrients, water	22
Tues 24 Jan	5. Nutrient cycling II: carbon cycle & climate	4,25
Thurs 26 Jan	6. Climate change	25
Tues 31 Jan	7. Physiological ecology	4, 5
Thurs 2 Feb	8. <b>Midterm 1</b>	
Tues 7 Feb	9. Life history evolution	7
Thurs 9 Feb	10. Exponential & logistic population growth	10
Tues 14 Feb	11. Life histories & age/stage structure	7,9
Thurs 16 Feb	12. Dynamics in space and time	11
Tues 21 Feb	13. Metapopulations	9, 24
Thurs 23 Feb	14. Predation	12
Tues 28 Feb	15. Inter-specific competition	14
Thurs 2 Mar	16. <b>Midterm 2</b>	
Tues 7 Mar	17. Disease ecology and epidemiology	13
Thurs 9 Mar	18. Theories of diversity & community structure	16,19
Tues 14 Mar	19. Food webs	16,19
Thurs 16 Mar	20. Island Biogeography & effects of diversity	18
Tues 21 Mar	21. <b>Final Exam, 3 - 6 pm</b>	

**IA contact info and office hours will be posted on Canvas during week 2.**

\* **Text:** Cain, Bowman and Hacker. *Ecology*. Sinauer Associates.