

UNH MARINE IMMERSION – SUMMER 2024
Marine/Estuarine/Freshwater Biology (MEFB) 410; 2 credits
August 12-19
Shoals Marine Laboratory, Appledore Island

Instructors:

Dr. Jessica Bolker, Professor, Department of Biological Sciences, UNH
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Dr. Jason Goldstein, Research Director, Wells National Estuarine Research Reserve,
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Guest faculty:

Laura Crane, M.S. Wells National Estuarine Research Reserve, Wells, ME

Dr. Inga Sidor, Dept. of Molecular, Cellular and Biomedical Sciences and New
Hampshire Veterinary Diagnostic Laboratory, UNH

Prof. Gregg Moore, Department of Biological Sciences, UNH

Guest student (MImm alum, SML staff):

Esher Swanson (MImm 2023)

Description: An intensive 2-credit course for incoming freshmen, surveying a range of marine-related fields (with an emphasis on biology and field ecology), research approaches, data management, and organisms. The course will be based at the Shoals Marine Laboratory on Appledore Island, where students – and some faculty - will be in residence. “Marine Immersion” will introduce students to the breadth, excitement, and challenges of marine sciences through lectures, demonstrations, and field experiences offered by a cohort of UNH faculty, and through short research projects carried out on the island. It will also introduce students to resources and opportunities available at UNH, provide an opportunity to get to know some UNH faculty, and let them begin building a network among their peers even before they arrive in Durham.

Goals for students:

- Gain direct experience with multiple aspects of marine research through a collaborative field project
- Learn how to read and interpret scientific research papers;
- Collect, organize, and analyze data from field- and lab-based research projects;
- Strengthen written and oral communication skills;
- Discover the breadth and diversity of marine science, and of its representation at UNH;
- Increase motivation and ability to participate in research as an undergraduate;
- Begin building relationships with faculty and peers that will contribute to academic success during (and beyond) freshman year.

Assignments and grading

Field project (oral presentation-10, notebook-10, final paper-30) 50%

Individual drafts (introduction, discussion)	5%
Individual daily reflections (5 days)	15%
Participation/collaboration (data collection, analyses, methods)	5%
Quizzes	25%

Field projects involve planning, performing, analyzing, and presenting results from a brief study of a particular aspect of field marine ecology. Projects will be collaborative, with small teams of students working together. The grade on the project is the same for all group members.

There will be a single *field notebook* for each project group, where your group will record data, information, procedures, questions, and ideas, as well as sketches or diagrams relevant to your project. It counts as part of the group project grade.

Individual drafts: Each group member will prepare an individual, separate draft of the introduction and discussion sections of the final report. These will be graded separately, and the group can then draw on and combine them for the single final document.

Daily reflections: these consist of one page per day (uploaded to Canvas) containing your individual thoughts, questions, reflections, and drawings related to your scientific work during the week. “One page” means 300 words if it’s all text; half that, if it’s text plus a carefully-executed drawing. Over the course of the week (Tuesday-Saturday) you must include at least 3 drawings; you may include up to 5. See separate description for details and grading scale.

Quizzes: There will be short quizzes each day covering recent reading and other material/activities discussed in class. They will have a mix of question types (multiple choice, short-answer, matching, labeling diagrams, etc.). Quizzes are usually right after breakfast.

The *participation/collaboration* portion of the grade reflects your contribution to your team’s success during the week, as well as your overall engagement with class activities. This means being prompt (where you’re supposed to be, when you’re supposed to be there) and on-task, as well as generous with your comments and helpful input during group activities and in your peer reviews of other people’s work in progress. This will be assessed in part via a confidential group survey where you will assess each team member’s contribution to your joint projects.

More details about the requirements, format, and grading of each component will be provided on Canvas and during the class. Final grades are on a 100 point scale; there is no curve (we will be thrilled if everyone earns an A!). Late assignments lose 20% per day. There are no make-up or extra credit options.

Canvas/myCourses

This course will use Canvas, which UNH calls “**myCourses.**” There will be no online assignments or quizzes, but we will post lots of essential information, including background readings and other resources for your projects, reports, and presentations. We will maintain an online gradebook so you can check your scores on graded assignments. There are no online lectures or recordings of lectures (other than the Rock Talk you watched in advance).

If you have any technical difficulties with Canvas, it is your responsibility to resolve them. This week, you can find help online (including via 24/7 live chat support); once you’re on campus, the IT help desk in Dimond Library is a great resource.

You will be uploading most of your assignments via Canvas, and the time you upload counts as the time you submitted them – thus, potential printer problems won’t keep you from turning things in on time (or serve as an excuse if you don’t). In some cases we may also ask you to print a copy, but if the upload was on time and the printer jammed, you’re OK. (Note that uploaded files must be *readable* to count as submitted.)

All papers submitted via Canvas are automatically run through a plagiarism checker that measures how similar your text is to previous student papers (from UNH and elsewhere), Wikipedia, general and academic websites, etc. Low levels of similarity can occur based on titles in your reference list, or for other legitimate reasons – but high levels are cause for concern and will prompt us to look closely for possible plagiarism, deliberate or otherwise. ***If you have any questions or concerns about what to cite, how to cite, or whether your text is too similar to what you’ve read in your sources, please ask us before you turn it in.*** Do not assume that the way you were taught to do it in high school is okay. In college, plagiarizing is an extremely serious academic offense and will cause you to fail the course and have a letter placed in your permanent file in the Dean’s Office.

Academic honesty, and acknowledging sources

KEY POINT: If you plagiarize in this class, you will fail it (the whole class, not just the assignment where you cheated).

Students and instructors are expected to adhere to the highest standards of academic honesty and integrity, including full acknowledgement of sources and assistance. If you’re unsure whether the rules and standards you learned in high school are the right ones to apply in college, just ask: we’ll be happy to discuss, either in general or regarding specific examples.

Much of your work this week will be done collaboratively. Part of that process includes fully and clearly acknowledging other people’s work, for example if you need to get information from someone else, or if a colleague provided a paper or other resources that you use. *However, individual assignments, specifically the quizzes, individual drafts of sections of the final paper, and the daily reflections, should be exclusively your own work – never copied or “borrowed” from anyone else, whether a field guide or a fellow*

student. We had a case in the past where a student copied someone else's drawings because they were too rushed (or lazy) to do their own; they suffered a very substantial reduction in their final course grade.

Unless otherwise specified, **the use of automated writing tools such as chatGPT and similar artificial intelligence (AI) tools is strictly prohibited in this course**, even when properly attributed. The use of automated writing tools is considered plagiarism and you will fail the class if you use them.

Plagiarism or other violations of academic principles will be handled according to UNH policy; see <https://www.unh.edu/conduct/students/student-code> for details.

Helpful information about recognizing and avoiding plagiarism is available in many places. We particularly recommend this [Plagiarism Resource Site](#) , and strongly encourage you to work through it (including the self-quiz) before or during the class.

The UNH Library provides resources on citation styles and on avoiding plagiarism at this site: [Citation Styles | Library](#) . (We'll explain what citation style you should use in Marine Immersion and other science classes – it's probably not what you learned in high school.)

A note about technology

There are both philosophical and practical reasons to limit your time online during Marine Immersion. Most importantly, *this week represents a unique opportunity for you to work intensively with a small, dedicated group of peers and instructors. Take advantage of it! Be present with us*, not on WhatsApp, Instagram, Snapchat, TikTok, or elsewhere online.

Bandwidth on the lab wireless network is limited, so please refrain from downloading large files (e.g. movies), playing online games, or engaging in other activities that will make it even slower – or possibly crash it altogether.

Any non-academic internet use must occur outside the lab/classroom.

Marine Immersion nutshell schedule - 2024

*Details, updates, and corrections will be provided daily:
check the whiteboard in Kiggins early and often!
Exact due dates/times for assignments will be posted separately.*

(unless otherwise noted, breakfast 7:30; lunch 12:30; dinner 6pm; Sun. brunch 10 am, dinner 5:00 pm)

[1] MONDAY 8/12 tides: L 11:36 pm

afternoon:

- Arrive on Appledore: welcome, “fire & water”/safety rules
- Course intro/overview: review syllabus & assignments

evening:

- Introduction to local flora and fauna (in sea table)
- About field notebooks
- Initial project group meetings
- Bell activities

[2] TUESDAY 8/13 tides: L 11:42

morning:

- **Quiz 1** (on pre-assigned readings/recorded talk)
- Island expectations and culture
- Fieldwork safety
- FIELDWORK: SMITH'S COVE

afternoon:

- FIELDWORK: VISIT PIERRE'S COVE
- Group meetings & plans
- Drawing lesson: Artist-in-Residence Rebecca Fullerton

evening:

- Report on fieldwork
- Rock Talk seminar: Dr. Jenn Miksis-Olds, UNH (ecoacoustics)

[3] WEDNESDAY 8/14 tides: L 12:34 pm

morning:

- **Quiz 2**
- Group meetings
- FIELDWORK

afternoon:

- How to read a scientific paper

- Report on fieldwork
- Work time/office hours

evening:

- Work time/office hours
- Intro to arts & crafts assignment

[4] THURSDAY 8/15 tides: L 1:34 pm

morning

- **Quiz 3**
- Bad talk/good talk (intro 3MT)
- Guests: Dr. Gregg Moore et al.

afternoon:

- FIELDWORK
- Work time/office hours

evening:

- Report on fieldwork
- Work time/office hours

[5] FRIDAY 8/16 tides: L 2:33 pm

morning:

- **Quiz 4**
- Work time/office hours

afternoon:

- FIELDWORK
- Report on fieldwork

evening:

- Work time/office hours

[6] SATURDAY 8/17 tides: L 3:29 pm

morning:

- **Quiz 5**
- Guest lecture: “So you want to be a dolphin doc...” - Dr. Inga Sidor
- Whale watch 10 AM - 2 PM

afternoon:

- Dissections/necropsy
- Work time/office hours

evening

- Work time/group meetings re: zero draft of discussion

[7] SUNDAY 8/18

tides: L 4:22 pm

morning:

- Dorm cleanup

10:00 brunch

afternoon:

- Project presentations
- Lab cleanup
- Work time

evening:

- **Final reports** (upload to Canvas) **and field notebooks** due
- Intro to college Q&A
- Fish printing, cleanup

[8] MONDAY 8/19

- Treasure boxes due 7 am; notes into boxes by 7:30

luggage on dorm porches by [TBD]; students at dock by 10:45
remember to pack your treasure box and fish prints ◦

DEP SML 11:15

ARR Portsmouth ~12:45

See you in Durham!