



South Portland, Maine 04106

**Seatime 1 - Marine Field Methods – Summer 2022**  
**Marine Science Program , Biological Sciences Department**

**Title:** Seatime 1 - Marine Field Methods

**Credit Hours:** 2.0

**Lecture (or Lab):** In person lecture, field and lab; online supplements

**Catalog Number:** OCEA-125

**Total Contact Hours:** 60

**Instructor:** Carol White

**Boat Captain:** Brian Tarbox

Instructor	Office	Phone	Email
<b>Carol A. White</b>	Marine Science Center	Cell 207-749-6906	cwhite@smccme.edu
<b>Captain Brian Tarbox</b>	Room 101 Marine Science Center	Office: 741-5767	btarbox@smccme.edu

**Office Hours:** By appointment

**Contact Information:** see above

**Course Description**

This course, **Seatime 1 – Marine Field Methods**, is designed to introduce students to the basic principles and activities of marine and aquatic field research. To the extent feasible this course will incorporate hands on activities where students practice knot and splicing skills; and apply basic navigation skills including piloting, rules of the road and boat safety and develop some familiarity with small boat handling skills. In this course students are introduced to field sampling methods including water-quality and biological sampling techniques, and basic microscopy skills. Students collect, compile and analyze data using manual and digital tools. Students identify and describe the important physiographic features of the Gulf of Maine and discuss current scientific issues facing the local and global marine environment and their implications. Finally, this course introduces students to potential careers in marine and aquatic science and informs students about internship and short course opportunities.

**Prerequisite:** Program acceptance, co-requisites: OCEA-105, or permission of the instructor.

**Required materials:**

There is no required textbook for this course. Students will be provided with a field book for the course. Access to a computer and internet will be necessary to access supplemental course content and assignments.

**Other Required Reading:**

Selected journal articles and papers will be used throughout the semester. Copies or links to the articles will be provided in Brightspace.

**Recommended Equipment and Supplies:**

For our outdoor field labs, a good pair of waterproof boots is highly recommended.

## Course objectives:

Upon successful completion of this course students will be able to:

1. Locate, read and interpret symbols on a navigational chart, and recognize navigational aids on the water.
2. Have knowledge of basic boat piloting, small boat safety, and rope skills; recognize and respond to respond to emergency situations on a small boat.
3. Determine tidal stages and understand basic weather conditions relevant to activities.
4. Comprehend and implement the important elements of maintaining a field notebook.
5. Properly calibrate, maintain and troubleshoot oceanographic equipment.
6. Collect a seawater sample and analyze it for several water quality parameters
7. Deploy and retrieve plankton nets, bottom grabs, and biological dredges and properly collect samples from the equipment and identify the organisms.
8. Be familiar with the basic operation of both compound-light and dissecting microscopes.
9. Acquire, analyze, and archive data using manual methods and basic software tools.
10. Be familiar with current issues facing both local and global marine systems.
11. Examine ethical implications of environmental changes.
12. Assess potential career and academic paths.
13. Perform as a member of a team of scientists, both in the lab and in the field; to the extent feasible given COVID-19 safety protocols and conditions.
14. Research a scientific topic and prepare an oral presentation on that topic.

## Topical Outline of Instruction

- Maintaining a field book & useful marine knots.
- Small Boat Handling, Boat safety, Boat piloting
- Charts, aids to navigation and rules of the road
- Navigation and Chart Plotting
- Environmental Measurements
- Oceanographic equipment: use, calibration and maintenance
- Sample collection, identification, and preservation
- Emerging Technologies in Marine Science
- Data acquisition, analysis, and archiving
- Physiography of the Gulf of Maine
- Current Issues in Marine Science
- Marine and Aquatic Science careers
- Class project & presentation

## Learning outcomes for science courses at SMCC:

SMCC students recognize the methodology and content of science and its relevance. SMCC students:

1. Apply scientific methodology to the study of the natural world.
2. Participate in hands-on and interactive lab activities.
3. Demonstrate the ability to make scientifically informed decisions.

## Course Format

This is an intensive course consisting of in person lecture, field and lab activities with online supplements and assignments. The class meets daily Monday through Friday from 8 am to noon and 1 pm to 3 pm for a two-week period from May 16<sup>th</sup> to May 27<sup>th</sup>. A tentative schedule has been provided in this syllabus recognizing that it may need to be adjusted as weather or course conditions change. To the extent feasible in person meetings will take place outdoors at the Marine Science Center on campus; some meetings will be held indoors at the Marine Science building Room 106 or Room 111. Field activities will take place on the SMCC Campus including the pier and dock and on the SMCC vessel the *SeaWolf*.

While the syllabus represents current plans, changes may occur during the course in response to the on-going COVID-19 pandemic. Depending on local and campus conditions, it is possible that the College may have to suspend face-to-face instruction for part of the semester. If we must stop face-to-face instruction anytime during the semester, I will contact you via your SMCC email or the Brightspace course homepage to discuss next steps for the course.

## Important COVID-19 Safety Considerations

Face masks compliant with SMCC guidelines (i.e no gaiters or bandanas) will be required for all participants in person meetings for this course; depending on the situation they may be required outdoors or on the school boat. Physical distancing will be employed in all in class meetings. Students will be required to complete health and exposure related screening questions prior to start of class. If you are not feeling or have had a potential exposure to COVID-19 you should not come to class. All students enrolled in the course are expected to follow SMCC COVID-19 guidelines , <https://www.smccme.edu/about/coronavirus-covid-19/>

## Contacting the instructor:

The best way to contact me outside of class is through my SMCC e-mail. [cwhite@smccme.edu](mailto:cwhite@smccme.edu). I will make every attempt to respond to your email within 24 hours. I do not have an office on campus but if you email me, I would be happy to schedule a meeting with you in person at SMCC, if feasible, or virtually, as my schedule permits. Please contact me using your campus email, rather than personal or business email.

## Student Participation and Course Requirements

**Attendance:** Attendance is critical to the successful completion of this course since the course focus on experiential hands-on skills that will be gained through a combination of in person meetings and student practice. This course meets daily for only 10 sessions so it important that students attend every session. You will be considered absent if you are not in attendance at a scheduled class meeting. Tardiness or partial absences, even if not consecutive, may adversely affect a student's grade. Students who miss 1 course meeting without prior discussion with the instructor will be assigned the grade of AF (Administrative Failure). It is the instructor's discretion as to whether make up work will be allowed for missed classes. Due t the short format of the course, if unforeseen circumstances arise, such as illness or an emergency, that result in absence from the class, the student may need to take an incomplete in the course.

**Class Participation :** *All students must participate in class activities and meetings. Active participation* means actively engaging in the learning process by asking questions, contributing to discussions, and participating in class activities. Your genuine preparation and participation will make the course more interesting for all of us.

**Cell Phone Use:** In general, there should be no cell phone use during field activities, in person lectures or presentations. We will take a few breaks during the class meetings ; at which time you can use your phone as you see fit. Occasionally,

when instructed, students may use their cell phones in the field to look up information, take photographs or perform simple calculations.

**Appropriate Dress:** This course will be conducted outside as much as possible, under tents, on the SMCC Campus and on the SMCC boat. Field activities will take place rain or shine. Students are expected to be aware of weather conditions and dress accordingly. Closed-toed shoes are required at all times - an old or inexpensive pair of sneakers or rubber boots are recommended for water-based activity for both safety and comfort. Life jackets are required for any activities on the pier, float or boat and will be supplied. You are welcome to bring your own life jacket if you prefer.

**Field Book:** You will be supplied with a field notebook and will be given instructions on how to maintain a good field notebook. Your field book will be examined from time to time and a point score will be assigned based on completeness, neatness and accuracy.

**Course Policies:**

- All students should regularly check their SMCC email and Brightspace for class information.
- No food or drink is permitted during on campus, in person meetings.
- Students are responsible for all material in the course and are expected to do their own work. Cheating of any kind will result in a failing grade for this course. Specific policies of this course follow those stated in the SMCC Students' Handbook. Assignments must be turned in on time. Late assignments, without a valid excuse, will be penalized.

**Student Evaluation and Grading**

Item	Description	Percentage of Grade
Quizzes/Assignments	Several quizzes/assignments are planned to assess your understanding of important topics.	20%
Skills Assessment	Includes ongoing and final assessment of various field-related skills including knot tying, boat operation, sampling techniques, microscope techniques and data	30%
Research & Presentation	Students will participate in a group field and lab research project The group will either prepare a scientific poster as a group or students will research a marine topic of interest and share the information with the class in a short oral presentation.	20%
Participation	Includes attendance and class participation.	30%
	<b>Total</b>	<b>100%</b>

## **End-of-Course Evaluation**

Students complete evaluations for each course attended at SMCC. Evaluations are submitted online and can be accessed through the student portal. You will receive an e-mail to your student e-mail account when course evaluations are available.

## **Face to Face Classes**

While the syllabus represents current plans, there may be changes during the course in response to the on-going Covid-19 pandemic. Although highly unlikely, it is possible that the College may have to suspend face-to-face instruction for part of the semester. If we must stop face to face instruction anytime during the semester, your instructor will contact you via your SMCC email or the Brightspace course homepage to discuss next steps for the course.

## **Policies for all courses at Southern Maine Community College:**

### **ADA Statement**

Southern Maine Community College is an equal opportunity/affirmative action institution and employer. For more information, please call (207) 741-5798. If you have a disabling condition and wish to request accommodations in order to have reasonable access to the programs and services offered by SMCC, you must register with the Disability Services Coordinator, Sandra Lynham, who can be reached at 741-5923. Further information about services for students with disabilities and the accommodation process is available upon request at this number. Course policies about online testing are modified to suit each individual's accommodations.

### **The Learning Commons:**

The library, tutoring and writing centers, and reference/research assistance (typically located on the second floor of South Portland's Campus Center and in the Midcoast's LL Bean Learning Commons and Health Science Center) will be fully available online during the fall 2020 semester. Here you can find free academic support through individually scheduled and drop in, online tutoring. You can also find information literacy/research librarians, and professional academic strategy/planning mentoring online. While the physical space of the Learning Commons will not be available at this time, we can also work with you to set up zoom classrooms for small group study. Services are offered by appointment or as drop-in assistance.

To access services:

- Visit My Learning in My Maine Guide or
- Select the "tutoring needed" button if it appears inside your Brightspace course.

Whether On Site or Online, students have consistently reported that the Learning Commons is a friendly, risk-free, and helpful place to seek academic support. It has also been shown that those who make use of the Learning Commons do better in a course than those who do not. We strongly encourage you to take advantage of this valuable and enjoyable resource.

### **SMCC Pay-for-Print Policy**

Each semester students receive a \$20 printing credit. The balance resets at the end of the semester and any remaining credits are removed. The College's pay-for-print system monitors printing on all printers (including those in general access labs, library printers, Tutoring Services, Campus Center Lounge and technology labs). Be sure to log OUT of the system when you've finished your printing, to prevent unauthorized access to your account. Students can check the number of pages they have printed by using the Printing Balance tool available on SMCC computers (located in the lower right corner of the screen, near the clock). Departments with work study students who need to print documents for the department should contact the Help Desk at 741-5696 to have a special account set up. To find ways to reduce your printing charges, please go to the IT Help tab on My SMCC. If you have questions about the pay-for-printing policy or your printing charges, please contact the Help Desk at 741-5696 or send an e-mail to [helpdesk@smccme.edu](mailto:helpdesk@smccme.edu).

## **Refunds**

Print jobs are eligible for a refund in the event of mechanical or electronic error on the part of the printer, print server, or software used to submit the job. Jobs are not eligible for a refund in cases where the job was not set up correctly, was submitted multiple times, or the student is not satisfied with the result. To request a refund, please bring the offending print to the IT Department in the basement of the Ross Technology Center. Refunds will be granted in the form of a credit to the student's account.

## **Add-Drop Policy**

Students who drop a course during the one-week "add/drop" period in the fall and spring semesters and the first three days of summer sessions receive a 100% refund of the tuition and associated fees for that course. Please note any course that meets for less than the traditional semester length, i.e., 15 weeks, has a pro-rated add/drop period. There is no refund for non-attendance.

## **Withdrawal Policy**

A student may withdraw from a course only during the semester in which s/he is registered for that course. The withdrawal period is the second through twelfth week of the Fall and Spring semesters and the second through ninth week of twelve-week Summer courses. This period is pro-rated for shorter-length courses, usually 75 percent of course meeting times; please check with the Registration Office. To withdraw from a course, a student must complete and submit the appropriate course withdrawal form, available at the Registration Office. This process must be completed either in person or by using SMCC e-mail accounts.

## **Plagiarism Statement**

If an instructor suspects that a student has knowingly committed a violation defined in the Maine Community College System Policy on Student Grade Appeals and Academic Misconduct, the instructor has the authority to review the alleged misconduct and determine the grade that the student should receive for the assignment and the course. The instructor may assign a failing grade for the assignment or course and may require the student to complete additional work for the course. The instructor may consult with the department chair and/or the College's chief academic officer prior to making such decisions. If a student seeks to challenge an instructor's determination, the student should submit a grade appeal. Grade appeal forms are available in the Advising Office on the South Portland Campus or in the administrative offices in the Learning Commons on the Midcoast Campus. An instructor may also refer the matter to the College's disciplinary officer for review under the procedures of the MCCS Student Code of Conduct.