

**Nautical Science Program**  
**NAUT301A**  
**Introduction to Seamanship and Navigation**

**Degree Credit Units: 2**

**Sections:**

Monday	6:00-8:50 PM	Capt. Harding
Monday	6:00-8:50 PM	Capt. Ugoretz
Tuesday	6:00-8:50 PM	Capt. Harding
<b>Tuesday</b>	<b>6:00-8:50 PM</b>	<b>Capt. Monk</b>
Wednesday	6:00-8:50 PM	Capt. Prioleau

**Contact Hours:**

Lectures - 15 hours (3-hr Lectures, Weeks 1-5)  
Laboratories - 35 hours (3-hr Dockside Demo, 32-hr voyage)  
Additional online contact and office hours weekly

**Location:**

USC University Park Campus for Week 1-5 Lectures.  
**Room locations vary by section and are TBD.**

Port of Los Angeles for dockside demonstration laboratory.  
San Pedro or other waterfront location for 2-day voyages.

**Instructors:**

Captain Lars Harding, Program Administrator

[harding@usc.edu](mailto:harding@usc.edu)

(562) 230-5277

Captain John Ugoretz

[ugoretz@usc.edu](mailto:ugoretz@usc.edu)

(805) 570-6697

Captain Paul Prioleau

[ppriolea@usc.edu](mailto:ppriolea@usc.edu)

**Captain David Monk**

[dmonk@usc.edu](mailto:dmonk@usc.edu)

(310) 904-9177

**Office Hours:**

Physical Education Building - PED 302B

*During lecture weeks or by appointment only...*

Capt. Harding	Tuesday	5:15-5:45 PM
	Wednesday	5:15-5:45 PM

<b>Capt. Monk</b>	<b>Tuesday</b>	<b>5:15-5:45 PM</b>
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## USCG Accreditation

This course is certificated by the United States Coast Guard for license track students pursuing a Merchant Mariner Credential (**USCG Certificate UNIVSC-155**).

## Course Description

This level one introductory nautical science class is taught in the classroom and aboard ship. The course provides an introduction to the history, technology and basics of operating and navigating sailing vessels at sea. Lectures focus on vessel construction, nomenclature, hydrodynamics, aerodynamics of sail, safety at sea, charting, geometry, and oceanography as pertinent to navigation. Students will apply the concepts and skills learned in the classroom to the safe operation and navigation of a working sail training vessel during a 2-day overnight ocean voyage. Students must demonstrate an understanding of US Coast Guard rules and admiralty laws governing piloting through commercial coastal waterways. Students also learn about 18th and 19th century wooden tallship construction, design, and rigging during a 1-day seminar conducted at the Port of Los Angeles.

## Learning Objectives

Students gain knowledge and an introductory understanding of:

- Traditional and modern ship construction, design and vessel nomenclature/terminology
- Basic vessel physics, hydrodynamics, aerodynamics and performance
- Maritime history and vessel design
- U.S. Coast Guard “Piloting Rules of the Sea Ways”, admiralty law and governance
- U.S. Coast Guard required safety gear, equipment, and their application at sea
- Applied piloting and seamanship skills under power and sail
- Navigation theory and at-sea chart and electronic navigation
- Deck watch and navigation watch collaboration to ensure safe passage of the vessel
- Leadership and communication skills in seamanship, deck operations, and vessel handling

**Prerequisite(s):** None

**Co-Requisite(s):** None

**Concurrent Enrollment:** Concurrent enrollement in Nautical Science 001B, Advanced Navigation and Seamanship is permitted but is not required.

## Course Notes

Course enrollment is for a Letter Grade, Pass/Not Pass, or Audit.

*Note: the lecture portion of this course meets during the first five consecutive weeks of classes except holidays. For safety reasons, lecture attendance is mandatory in order to participate in the “at sea laboratories”. A Sunday, 10:00 a.m. – 12:30 p.m. “Dockside Demo” laboratory and a “2-day Voyage”, held on Fridays and Saturdays are a required portion of the class. Dates for these components of the course will be arranged during the first three weeks of lecture.*

Copies of lecture slides, instructional videos, and other material will be posted on Blackboard.

## Required Readings and Supplementary Materials

The following course materials are available at the USC Book Store:

Text: The Annapolis Book of Seamanship, J. Rousmaniere (Optional)

Charts: 1210TR Martha's Vineyard to Block Island (provided)

18746 Catalina Channel (provided)

18751 Los Angeles Harbor (provided)

18757 Catalina Island (provided)

Videos: Annapolis Video Series Vol. 1-5 (provided)

## Description and Assessment of Assignments

A mid-term examination will be given during Lecture #4 to determine readiness to participate in the "2-Day Sea Voyage". Students will demonstrate proficiency in navigation and seamanship throughout the two-day sailing voyage, letter grades will be impacted by participation. The final examination will include significant demonstration of chart navigation skills and understanding of the course materials.

5%	Lecture attendance. <i>Attendance is required to participate in off-campus activities.</i>
5%	Dockside Demonstration attendance.
30%	Midterm Examination
15%	2-Day Sailing Voyage
45%	Final Exam

## Grading of Final Examination

Due to the challenging nature of this exam and historical results the following curve is used.

A	95-100
A-	80-94
B+	77-79
B	66-76
B-	60-65
C+	57-59
C	53-56
C-	50-52
D+	47-49
D	43-46
D-	40-42
F	39 and below

## Course Grading Scale

≥ 90% = A ≥ 80% = B ≥ 70% = C ≥ 60% = D, Failing Work < 45% or missing assignments or lack of attendance

## Assignment Submission Policy

Mid-term examination must be taken during the scheduled lecture. Participation in both the "Dockside Demonstration Laboratory" and "Two-Day Sea Voyage" are mandatory. Off-campus activities will be scheduled during the first three weeks of class. Changes to scheduled at-sea voyages can only be made with advanced notice and **made in person** with legitimate compelling conflict or documented illness.

## Grading Timeline

Final grades will be submitted per university schedules and policies.

## Additional Policies

*Due to safety considerations, students will not be permitted to participate in the "2-day Voyage" without having participated in the five on-campus lectures or on approval of instructor.*

## Special Needs Students are Welcome!

Please contact Capt. Lars P. Harding, Program Administrator to discuss accommodations.

## Course Schedule: A Weekly Breakdown

	Topics / Daily Activities	Learning Objectives	Readings and Homework	Deliverable/ Due Dates
<b>Week 1</b>	Syllabus Review Nomenclature	Traditional and modern ship construction, design and vessel nomenclature	Annapolis Book of Seamanship: 3-27 Blackboard Anapolis Video 1	
<b>Week 2</b>	Hull and sail design, maritime history	Traditional and modern ship construction, design and vessel nomenclature Maritime history and changes in vessel design	Annapolis Book of Seamanship: 40-45, 46-56 Blackboard Anapolis Video 5	Nomenclature & Sail Plans quiz - due end of Week 2
<b>Week 3</b>	Physics, oceanography, and beginning seamanship	Basic vessel physics, hydrodynamics, aerodynamics and performance	Annapolis Book of Seamanship: 67	
<b>Week 4</b>	USCG Requirements, safety, and watch standing	United States Coast Guard "Piloting Rules of the Sea ways", basic admiralty law. Required safety gear and vessel equipment and their application	Annapolis Book of Seamanship: 189-230 Blackboard Anapolis Videos 2 and 3	Navigation Lights Midterm during lecture week 4
<b>Week 5</b>	Navigation	Navigation theory and at-sea chart and electronic navigation	Annapolis Book of Seamanship: 231-301 Blackboard Anapolis Video 4	Pre-Voyage Quiz – due end of week 5
<b>Weeks 5-15</b>	Dockside Demonstration and Two-Day Sailing Voyage	Traditional and modern ship construction, design and vessel nomenclature United States Coast Guard "Piloting Rules of the Sea ways", basic admiralty law. Required safety gear and vessel equipment and their application Vessel piloting and seamanship skills under power and sail	Schooner diagram  Packing and preparation lists  Driving Instructions	Dates to be determined during lecture weeks 1-3
<b>Week 15</b>	Final Review Session	Full review of practical navigation and sailing theory learned in course.		Last week of regularly scheduled classes for each section
<b>Exams</b>	Final Examination			Date: Consult the USC <i>Schedule of Classes</i> at <a href="http://classes.usc.edu/">classes.usc.edu/</a> .

## Statement on Academic Conduct and Support Systems

### Academic Conduct:

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Part B, Section 11, “Behavior Violating University Standards” [policy.usc.edu/scampus-part-b](http://policy.usc.edu/scampus-part-b). Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct>.

### Support Systems:

*Student Counseling Services (SCS)* – (213) 740-7711 – 24/7 on call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention. [engemannshc.usc.edu/counseling](http://engemannshc.usc.edu/counseling)

*National Suicide Prevention Lifeline* – 1 (800) 273-8255

Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. [www.suicidepreventionlifeline.org](http://www.suicidepreventionlifeline.org)

*Relationship and Sexual Violence Prevention Services (RSVP)* – (213) 740-4900 – 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender-based harm. [engemannshc.usc.edu/rsvp](http://engemannshc.usc.edu/rsvp)

*Sexual Assault Resource Center*

For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: [sarc.usc.edu](http://sarc.usc.edu)

*Office of Equity and Diversity (OED)/Title IX Compliance* – (213) 740-5086

Works with faculty, staff, visitors, applicants, and students around issues of protected class. [equity.usc.edu](http://equity.usc.edu)

*Bias Assessment Response and Support*

Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. [studentaffairs.usc.edu/bias-assessment-response-support](http://studentaffairs.usc.edu/bias-assessment-response-support)

*The Office of Disability Services and Programs*

Provides certification for students with disabilities and helps arrange relevant accommodations. [dsp.usc.edu](http://dsp.usc.edu)

*USC Support and Advocacy (USCSA)* – (213) 821-4710

Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. [studentaffairs.usc.edu/ssa](http://studentaffairs.usc.edu/ssa)

*Diversity at USC*

Information on events, programs and training, the Diversity Task Force (including representatives for each school), chronology, participation, and various resources for students. [diversity.usc.edu](http://diversity.usc.edu)

*USC Emergency Information*

Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible. [emergency.usc.edu](http://emergency.usc.edu)

*USC Department of Public Safety – UPC: (213) 740-4321 – HSC: (323) 442-1000 – 24-hour emergency or to report a crime.*

Provides overall safety to USC community. [dps.usc.edu](http://dps.usc.edu)

## Academic Integrity

The University of Southern California is foremost a learning community committed to fostering successful scholars and researchers dedicated to the pursuit of knowledge and the transmission of ideas.

Academic misconduct is in contrast to the university's mission to educate students through a broad array of first-rank academic, professional, and extracurricular programs and includes any act of dishonesty in the submission of academic work (either in draft or final form).

This course will follow the expectations for academic integrity as stated in the [USC Student Handbook](#). All students are expected to submit assignments that are original work and prepared specifically for the course/section in this academic term. You may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s).

Students suspected of engaging in academic misconduct will be reported to the Office of Academic Integrity. Other violations of academic misconduct include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

The impact of academic dishonesty is far-reaching and is considered a serious offense against the university and could result in outcomes such as failure on the assignment, failure in the course, suspension, or even expulsion from the university.

For more information about academic integrity see the student handbook or the [Office of Academic Integrity's website](#), and university policies on [Research and Scholarship Misconduct](#).