

# NAVAL SCIENCE (NAVS)

## NAVS 1100 - Drill Lab-Independent Study (1 Credit)

**Last Four Terms Offered:** Fall 2020

Schedule of Classes (<https://classes.cornell.edu/>)

## NAVS 1101 - Introduction to Naval Science (0 Credits)

Involves a study of fundamental aspects of naval science. This includes contributions to sea power, different warfare communities involved in the physical development of naval forces, and study of resource management and naval science prospects for the future. Naval uniforms, customs, and traditions are also covered.

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021

Schedule of Classes (<https://classes.cornell.edu/>)

## NAVS 1102 - Sea Power and Maritime Affairs (3 Credits)

Discussions examine the history of the Navy as a force in diplomacy and an instrument of U.S. foreign policy. Relationships between Congress and the military for determining the national defense policy are also explored. An integrated examination of current events and issues lends historical perspective throughout the course.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes (<https://classes.cornell.edu/>)

## NAVS 1141 - Naval Professional Laboratory (1 Credit)

Crosslisted with PE 1870

All students in the program participate in a two-hour professional development session each week. The session is held from 2:30 until 4:30 on Wednesday afternoons and consists of drill, athletics, and professional information events. Students gain experience in actual leadership situations and learn the fundamentals of seamanship, military formations, movements, commands, discipline, courtesies, and honors. During information briefings, special emphasis is given to applied leadership as it relates to the administrative and managerial aspects of a Navy or Marine Corps officer's duties.

**Enrollment Information:** Enrollment limited to: Naval Science students.

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021

Schedule of Classes (<https://classes.cornell.edu/>)

## NAVS 1142 - Naval Professional Laboratory (1 Credit)

Crosslisted with PE 1871

All students in the program participate in a two-hour professional development session each week. The session is held from 2:30 until 4:30 on Wednesday afternoons and consists of drill, athletics, and professional information events. Students gain experience in actual leadership situations and learn the fundamentals of seamanship, military formations, movements, commands, discipline, courtesies, and honors. During information briefings, special emphasis is given to applied leadership as it relates to the administrative and managerial aspects of a Navy or Marine Corps officer's duties.

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**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

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## NAVS 2201 - Leadership and Management (3 Credits)

Introduces the student to the fundamental concepts of leading Sailors and Marines and serves as part of the NROTC leadership development continuum. Develops the elements of leadership vital to the effectiveness of Navy/Marine Corps officers by reviewing the theories and parameters of leadership and management within and outside of the naval science and progressing through values development, interpersonal skills, management skills, and application theory. Practical applications are explored through the use of experiential exercises, readings, case studies, and laboratory discussions.

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021

Schedule of Classes (<https://classes.cornell.edu/>)

## NAVS 2241 - Naval Professional Laboratory (1 Credit)

Crosslisted with PE 1872

All students in the program participate in a two-hour professional development session each week. The session is held from 2:30 until 4:30 on Wednesday afternoons and consists of drill, athletics, and professional information events. Students gain experience in actual leadership situations and learn the fundamentals of seamanship, military formations, movements, commands, discipline, courtesies, and honors. During information briefings, special emphasis is given to applied leadership as it relates to the administrative and managerial aspects of a Navy or Marine Corps officer's duties.

**Enrollment Information:** Enrollment limited to: Naval Science students.

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021

Schedule of Classes (<https://classes.cornell.edu/>)

## NAVS 2242 - Naval Professional Laboratory (1 Credit)

Crosslisted with PE 1873

All students in the program participate in a two-hour professional development session each week. The session is held from 2:30 until 4:30 on Wednesday afternoons and consists of drill, athletics, and professional information events. Students gain experience in actual leadership situations and learn the fundamentals of seamanship, military formations, movements, commands, discipline, courtesies, and honors. During information briefings, special emphasis is given to applied leadership as it relates to the administrative and managerial aspects of a Navy or Marine Corps officer's duties.

**Enrollment Information:** Enrollment limited to: Naval Science students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes (<https://classes.cornell.edu/>)

## NAVS 2301 - Principles of Navigation (4 Credits)

Introduces the fundamentals of marine navigation emphasizing piloting and electronic navigation procedures. Covers coordinate systems, chart projections, navigational aids, instruments, compass observations, time, and study of tides and currents.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes (<https://classes.cornell.edu/>)

## NAVS 3201 - Naval Ship Systems I (Engineering) (3 Credits)

Introduces primary ship-systems and their interrelationships. Basic principles of thermodynamics, propulsion, mechanical operation, internal communications, electronics, ship structure, and other marine systems are covered.

**Last Four Terms Offered:** Fall 2024, Spring 2024, Fall 2022, Fall 2021

Schedule of Classes (<https://classes.cornell.edu/>)

**NAVS 3202 - Naval Ships Systems II (Weapons) (3 Credits)**

Examines the principles and theories used in the development of naval weapons systems. Extensive study is made of detection systems, especially radar and sonar, followed by discussions of ancillary systems for computing, stabilizing, tracking, and weapons control and delivery.

**Last Four Terms Offered:** Spring 2025, Fall 2023, Spring 2023, Spring 2022

Schedule of Classes (<https://classes.cornell.edu/>)

**NAVS 3310 - Evolution of Warfare (3 Credits)**

A study of warfare that examines the relationship of military strategy to geography, economics, sociology, technology, and governing policy. This course examines the historical evolution of warfare, including principles of war, development of weapons and their effects on warfare, and the political goals associated with specific adversaries through history.

**Last Four Terms Offered:** Spring 2024, Spring 2021, Spring 2019, Spring 2018

Schedule of Classes (<https://classes.cornell.edu/>)

**NAVS 3341 - Naval Professional Laboratory (1 Credit)**

Crosslisted with PE 1874

All students in the program participate in a two-hour professional development session each week. The session is held from 2:30 until 4:30 on Wednesday afternoons and consists of drill, athletics, and professional information events. Students gain experience in actual leadership situations and learn the fundamentals of seamanship, military formations, movements, commands, discipline, courtesies, and honors. During information briefings, special emphasis is given to applied leadership as it relates to the administrative and managerial aspects of a Navy or Marine Corps officer's duties.

**Enrollment Information:** Enrollment limited to: Naval Science students.

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021

Schedule of Classes (<https://classes.cornell.edu/>)

**NAVS 3342 - Naval Professional Laboratory (1 Credit)**

Crosslisted with PE 1875

All students in the program participate in a two-hour professional development session each week. The session is held from 2:30 until 4:30 on Wednesday afternoons and consists of drill, athletics, and professional information events. Students gain experience in actual leadership situations and learn the fundamentals of seamanship, military formations, movements, commands, discipline, courtesies, and honors. During information briefings, special emphasis is given to applied leadership as it relates to the administrative and managerial aspects of a Navy or Marine Corps officer's duties.

**Enrollment Information:** Enrollment limited to: Naval Science students.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

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**NAVS 4302 - Naval Operations and Seamanship (3 Credits)**

Covers the application of the nautical rules and maneuvering board in order to avoid collisions at sea. Other aspects of naval surface ship operations that are introduced include visual and electronic communications methods, tactical disposition of forces, ship handling theory, and deck seamanship topics.

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021

Schedule of Classes (<https://classes.cornell.edu/>)

**NAVS 4402 - Leadership and Ethics (3 Credits)**

The course integrates an intellectual exploration of Western moral traditions and ethical philosophy with a variety of topics, such as military leadership, core values, and professional ethics; the Uniform Code of Military Justice; and discussions relating to the roles of enlisted members, junior and senior officers, command relationships, and the conduct of warfare. The course provides midshipman and traditional students with a foundation of moral traditions, combined with a discussion of historical and current events in the United States military to prepare them for the roles and responsibilities of Naval and civic leadership.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

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**NAVS 4411 - Fundamentals of Maneuver Warfare (3 Credits)**

Broad aspects of warfare and their interactions with maneuver warfare doctrine. Specific focus on the United States Marine Corps was the premier maneuver warfare fighting institution. Historical influences on current tactical, operational, and strategic implications of maneuver warfare practices in current and future operations. Case studies.

**Last Four Terms Offered:** Spring 2025, Spring 2023, Spring 2022, Spring 2017

Schedule of Classes (<https://classes.cornell.edu/>)

**NAVS 4441 - Naval Professional Laboratory (1 Credit)**

Crosslisted with PE 1876

All students in the program participate in a two-hour professional development session each week. The session is held from 2:30 until 4:30 on Wednesday afternoons and consists of drill, athletics, and professional information events. Students gain experience in actual leadership situations and learn the fundamentals of seamanship, military formations, movements, commands, discipline, courtesies, and honors. During information briefings, special emphasis is given to applied leadership as it relates to the administrative and managerial aspects of a Navy or Marine Corps officer's duties.

**Enrollment Information:** Enrollment limited to: Naval Science students.

**Last Four Terms Offered:** Fall 2024, Fall 2023, Fall 2022, Fall 2021

Schedule of Classes (<https://classes.cornell.edu/>)

**NAVS 4442 - Naval Professional Laboratory (1 Credit)**

Crosslisted with PE 1877

All students in the program participate in a two-hour professional development session each week. The session is held from 2:30 until 4:30 on Wednesday afternoons and consists of drill, athletics, and professional information events. Students gain experience in actual leadership situations and learn the fundamentals of seamanship, military formations, movements, commands, discipline, courtesies, and honors. During information briefings, special emphasis is given to applied leadership as it relates to the administrative and managerial aspects of a Navy or Marine Corps officer's duties.

**Last Four Terms Offered:** Spring 2025, Spring 2024, Spring 2023, Spring 2022

Schedule of Classes (<https://classes.cornell.edu/>)

**NAVS 4990 - Independent Study for Naval Science (0-3 Credits)**

**Last Four Terms Offered:** Fall 2021, Fall 2020, Fall 2019, Fall 2018

Schedule of Classes (<https://classes.cornell.edu/>)