

# Naval Science (Naval Reserve Officers Training Corps)

**Web Site:** <https://www.odu.edu/nrotc> (<https://www.odu.edu/nrotc/>)

## Programs

### Minor

- Military Leadership Minor (<https://catalog.odu.edu/undergraduate/engineering-technology/naval-science/military-leadership-minor/>)

### Naval ROTC

- NROTC (<https://catalog.odu.edu/undergraduate/engineering-technology/naval-science/nrotc/>)

## Courses

### Naval Science (NAVS)

#### NAVS 101 Introduction to Naval Science (2 Credit Hours)

General introduction to the naval service. Particular emphasis placed on the mission, organization, regulations and broad warfare components of the Navy and Marine Corps. Includes customs, discipline, courtesies, leadership, core values and shipboard nomenclatures.

#### NAVS 102 Naval Sea Power and Maritime Affairs (3 Credit Hours)

The study of the evolution of the major world naval and maritime nations. The role of American naval and maritime affairs in the rivalries of the great world powers during the colonial period, the spread of revolutionary movements, and the era of civil and international conflicts in the 19th and 20th centuries.

#### NAVS 111+ Naval Laboratory I (1 Credit Hour)

Covers basic military formations, drill movements, commands, customs, courtesies, honors and inspection. Lecture and discussion topics include security, equal opportunity and military justice. First year Naval Science students only.

**Prerequisites:** departmental permission

#### NAVS 112+ Naval Laboratory I (1 Credit Hour)

Continues basic military formations, drill movements, commands, customs, courtesies, honors and inspections. Lecture and discussion topics include cruise preparation, safety education, administration, security, equal opportunity and military justice. First year Naval Science students only.

**Prerequisites:** departmental permission

#### NAVS 201 Naval Ships Systems I (3 Credit Hours)

Familiarizes students with types, structure and purpose of naval engineering systems, propulsion systems, auxiliary power systems, electrical systems and ship control. Ship design and stability characteristics are examined.

#### NAVS 202 Naval Ships Systems II (3 Credit Hours)

Introduction to theory and principles of operation of naval weapons systems. Covers types of weapons and fire control systems, capabilities/limitations, theory of target acquisition, identification and tracking, trajectory principles and basics of naval ordnance.

**Pre- or corequisite:** NAVS 201

#### NAVS 211+ Naval Laboratory II (1 Credit Hour)

Covers military formations, drill movements, commands, customs, courtesies, honors and inspections. Lecture/discussion topics include cruise preparation/evaluation, security, administration and military justice. Second year Naval Science students only.

**Prerequisites:** departmental permission

#### NAVS 212+ Naval Laboratory II (1 Credit Hour)

Military formations, drill movements, commands, customs, courtesies, honors and inspections. Lecture and discussion topics include cruise preparation and evaluation, safety, administration, security, equal opportunity and military justice. Second year Naval Science students only.

**Prerequisites:** departmental permission

#### NAVS 301 Navigation and Naval Operations I (3 Credit Hours)

In-depth study of piloting including theory, principles and procedures. Includes use of charts, visual and electronic aids, and theory and operation of compasses. Other topics include tides, currents, effects of wind and weather, and nautical rules of the road.

**Prerequisites:** departmental permission

#### NAVS 302 Navigation and Naval Operations II (3 Credit Hours)

Relative motion vector-analysis theory, relative motion problems, formation tactics, and ship employment. Also includes an introduction to naval operations and operations analysis, ship behavior and characteristics in maneuvering, applied aspects of ship handling, and afloat communications. Concepts in naval leadership and naval operations reinforced through case studies.

**Prerequisites:** departmental permission

**Pre- or corequisite:** NAVS 301

#### NAVS 310 Evolution of Warfare (3 Credit Hours)

Explores the basic concepts for understanding the operational art of warfare from the beginning of recorded history to the present.

**Prerequisites:** departmental permission

#### NAVS 311+ Naval Laboratory III (1 Credit Hour)

Military formations, drill movements, commands, customs, courtesies, honors and inspections. Lecture/discussion topics include cruise preparation and evaluation, security and military justice. Third year Naval Science students only.

**Prerequisites:** departmental permission

#### NAVS 312+ Naval Laboratory III (1 Credit Hour)

Military formations, drill movements, commands, customs, courtesies, honors and inspections. Lecture and discussion topics include cruise preparation and evaluation, safety, administration, security, equal opportunity and military justice. Third year Naval Science students only.

**Prerequisites:** departmental permission

#### NAVS 395 Topics (3 Credit Hours)

Study of selected topics.

**Prerequisites:** departmental permission

#### NAVS 401 Leadership and Management I (3 Credit Hours)

The fundamentals of the managerial process (planning, organization, directing, and controlling) are considered in their relationship to the effectiveness of naval organization and readiness. Coverage includes human resources management, naval personnel management, material management and administration of division discipline.

**Prerequisites:** NROTC Sophomore Midshipman or STA-21/MECEP; departmental permission required for non-ROTC students

#### NAVS 402 Leadership and Ethics (3 Credit Hours)

Capstone course, designed to equip the student with the critical thinking skills to address moral and ethical dilemmas frequently faced by naval officers.

**Prerequisites:** completion of all previous NAVS courses

#### NAVS 410 Fundamentals of Maneuver Warfare (3 Credit Hours)

Broad aspects of warfare and their interactions with maneuver warfare doctrine. Focus on the United States Marine Corps as the premier maneuver warfare fighting institution. Historical influences on current tactical, operational, and strategic implications of maneuver warfare practices. Case studies. Enrollment preference to NROTC students.

**Prerequisites:** departmental permission

#### NAVS 411+ Naval Laboratory IV (1 Credit Hour)

Covers military formations, drills, commands, customs, courtesies, honors and inspections. Lecture/discussion topics include precommissioning preparation, administration, equal opportunity, safety and military justice. Fourth year Naval Science students only.

**Prerequisites:** departmental permission

**NAVS 412+ Naval Laboratory IV (1 Credit Hour)**

Military formations, drill movements, commands, customs, courtesies, honors and inspections. Lecture and discussion topics include precommissioning preparation, safety, administration, security, equal opportunity and military justice. Fourth year Naval Science students only.

**Prerequisites:** departmental permission