

# Naval Science (NS)

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## **NS 100 Naval Science Lab** (0 credit hours)

Military drill, courtesies and honors, elements of unit leadership, physical fitness and professional development of the prospective Naval/Marine Corps Officer. Required for all Naval ROTC students.

*Typically offered in Fall and Spring*

## **NS 110 Introduction to Naval Science** (2 credit hours)

Fundamental orientation to the Naval Service emphasizing the mission, organization, regulations, customs and traditions, broad warfare components of Navy and the major challenges facing today's Navy and Marine Officers.

*Typically offered in Fall only*

## **NS 210 Leadership and Management** (3 credit hours)

Assists students in acquiring knowledge and developing the cognitive processes necessary to make decisions in the practice of management. The student will learn the traditional foundations of management while developing decision skills to apply this knowledge in a real-world setting. The major focus is centered upon global management, ethics and social responsibility, total quality management, and cultural diversity.

*GEP Social Sciences*

*Typically offered in Fall only*

## **NS 225 Navigation** (4 credit hours)

A broad yet thorough education in basic ship navigation. Course includes a study of various navigation methods, weather, the laws of the sea, and navigational rules. Practical work includes chart plotting and understanding relative motion.

*Typically offered in Spring and Summer*

## **NS 315 Naval Engineering** (3 credit hours)

Introduction to the application of engineering principles in the research, development, design, construction, and operation of ships, weapons systems, and ocean structures, with emphasis on thermodynamic processes and energy conversions.

*Typically offered in Spring only*

## **NS 325 Naval Weapons Systems** (3 credit hours)

An introduction to the concepts and properties of electronic, physical, electromagnetic and mechanical systems to foster an understanding of the theory and principles of operation of shipboard weapons systems, course emphasizes types of weapons and fire control systems, capabilities and limitations, theory of target acquisition, identification and tracking, trajectory and ballistics principles, and basic theory of radar and sonar.

*Typically offered in Fall only*

## **NS 330 Evolution of Warfare** (3 credit hours)

The purpose of the Evolution of Warfare course is to provide the student with a basic understanding of the art and practice of warfare from the beginning of recorded history to the present day. This course will use Marine Corps Doctrinal Publications as base documents to evaluate how warfare technology, tactics, and strategic thought have progressed. Special emphasis is placed on the evolution and innovation of warfare and decision-making at all levels of war. Students will use a series of historical case studies to recognize and reinforce certain patterns, enduring themes, and principles of warfighting. This is a doctrinal and history-based course. The value of historical study is not simply to ascertain what has happened, but as modern practitioners of expeditionary warfare, to use the historical lessons learned as a basis for making practical judgments about the present and future.

*Typically offered in Spring only*

## **NS 415 Naval Operations** (4 credit hours)

A thorough exploration of the operations conducted by the U.S. Navy. Course includes a study of U.S. Naval evolutions, operations, command & control, communication, and an introduction to naval warfare doctrine. Practical applications include the determination of advanced maneuvering methods through and in-depth understanding of relative motion.

Prerequisite: NS 225 Navigation

*Typically offered in Fall only*

## **NS 420 Naval Leadership and Ethics** (3 credit hours)

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 Navy Regulations; and discussions relating to the roles of enlisted members, junior and senior officers, command relationships, and the conduct of warfare. The course provides students with a foundation of moral traditions, combined with a discussion of actual current and historical events in the United States navy and Marine Corps, to prepare them for the role and responsibilities of leadership in the naval service of the 21st century.

*GEP Humanities, GEP Interdisciplinary Perspectives*

*Typically offered in Spring only*

## **NS 430 Amphibious Warfare** (3 credit hours)

A survey of the projection of sea power ashore with special emphasis on the evolution of and innovation in amphibious warfare in the 20th Century through the study of historical amphibious landings and campaigns.

*Typically offered in Spring only*