

# NAVAL SCIENCE (NAV\_SCI)

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## **NAV\_SCI 110-0 Introduction to Naval Organization (0 Unit)**

This course is a general introduction to the USN and USMC that emphasizes organizational structure, warfare components and assigned roles/missions of USN/USMC. It covers all aspects of Naval Service from its relative position within the DoD to the specific warfare communities/career paths and includes basic elements of leadership and USN and USMC Core Values.

## **NAV\_SCI 120-0 Sea Power and Maritime Affairs (1 Unit)**

This course is a study of the U.S. Navy and the influence of sea power on history that incorporates both a historical and political science process to explore the major events, attitudes, personalities, and circumstances that have imbued the U.S. Navy with its proud history and rich tradition.

## **NAV\_SCI 210-0 Marine Navigation (1 Unit)**

This course is an in-depth study of the theory, principles, procedures, and application of plotting, piloting, and electronic navigation, as well as an introduction to maneuvering boards. Students learn piloting techniques, the use of charts, the use of visual and electronic aids, and the theory of operation of both magnetic and gyrocompasses. Students develop practical skills in plotting and electronic navigation.

## **NAV\_SCI 220-0 Naval Ship Systems II - Naval Weapons (1 Unit)**

This course outlines the theory and employment of weapons systems. Students explore the processes of detection, evaluation, threat analysis, weapon selection, delivery, guidance, and explosives. Fire control systems and major weapons types are discussed, including capabilities and limitations. The physical aspects of radar and underwater sound are described. Facets of command, control, communications, computers, and intelligence are explored as a means of weapons system integration.

## **NAV\_SCI 230-0 Leadership and Management Seminar for Naval Officers (1 Unit)**

The course introduces the student to many of the fundamental concepts of leading Sailors and Marines, which shall be expanded upon during the continuum of leadership development throughout NROTC. It 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 Service.

## **NAV\_SCI 331-0 Naval Operations (1 Unit)**

This course is a continued study of relative motion, formation tactics, and ship employment. It includes introductions to Naval operations and operations analysis, ship behavior and characteristics in maneuvering, applied aspects of ship handling, afloat communications, Naval command and control, Naval warfare areas, and joint warfare.

## **NAV\_SCI 336-0 Evolution of Warfare (1 Unit)**

Students trace the development of warfare to the present day. It is designed to cover the causes of continuity and change in the means and methods of warfare. It addresses the influence of political, economic, and societal factors on the conduct of war, with significant attention focused on the role of technological innovation in changing the battlefield. Students will explore the contribution of preeminent military theorists and battlefield commanders to our modern understanding of the art and science of war.

## **NAV\_SCI 338-0 Fundamentals of Maneuver Warfare (1 Unit)**

Students trace the development of warfare to the present day. It is designed to cover the causes of continuity and change in the means and methods of warfare. It addresses the influence of political, economic, and societal factors on the conduct of war, with significant attention focused on the role of technological innovation in changing the battlefield.

Students will explore the contribution of preeminent military theorists and battlefield commanders to our modern understanding of the art and science of war.

## **NAV\_SCI 341-0 Naval Leadership and Ethics (1 Unit)**

The course integrates an intellectual exploration of Western moral traditions and ethical philosophy with a variety of topics, such as military leadership, core values, professional ethics, the UCMJ and Navy regulations, and discussions relating to the roles of enlisted members, junior and senior officers, command relationships, and the conduct of warfare.

## **NAV\_SCI 345-0 Naval Ship Systems I - Naval Engineering (1 Unit)**

Students learn detailed ship design, hydrodynamic forces, stability, propulsion, electrical theory and distribution, hydraulic theory and ship control, and damage control. The course includes basic concepts of theory/design of steam, gas turbine, diesel, and nuclear propulsion. Case studies on leadership/ethical issues in the engineering arena are also covered.

## **NAV\_SCI 350-0 Naval Science Lab (0 Unit)**

Topics shall cover general Navy/Marine Corps mission and policies, force protection, operational security, watch standing, physical fitness, nutrition, stress management, and other professional development subjects not normally included in the curriculum of the Naval Science courses.

## **NAV\_SCI 355-0 Directed Study (0 Unit)**