

Naval Science (NSC)

Courses

NSC 100 Naval Science Lab 0 Credits

Military drill, cruise preparation, customs, traditions, and special areas of knowledge required of commissioned officers in the Navy and Marine Corps. Required for all midshipmen.

NSC 101 Introduction to Naval Science 2 Credits (2,0)

Introduction to the naval service with emphasis on the mission, organization, regulations, and components of the Navy and Marine Corps. Normally completed during the freshman year. Required for all Midshipmen without an authorized waiver. A grade of "C" or better is required to progress to the next level of Naval Science.

NSC 102 Seapower and Maritime Affairs 3 Credits (3,0)

This course provides an understanding of the significance of sea power throughout U.S. history from the Revolutionary War through the post-Cold War era and the War on Terrorism. Included is discussion of how naval forces constitute a vital component in promoting the national interests, policies, and overall military strategy of the United States. Normally taken by Midshipmen during the spring of the freshman year, following the completion of NSC 101. A grade of "C" or better, as well as, full battalion participation are required to proceed to the next level of Naval Science.

Prerequisites: NSC 101

NSC 201 Principles of Naval Leadership and Management 3 Credits (3,0)

Theory and principles of management, focusing on the officer-manager as an organizational decision maker. Includes interpersonal skills, behavior factors, and group dynamics. Required for all midshipmen.

Prerequisites: NSC 101

NSC 202 Navigation 3 Credits

This course provides a comprehensive study of ship navigation theory, principles, and procedures. Included is coverage of the international and inland rules for navigation, celestial and electronic navigation, piloting, dead reckoning, tides, weather, and use of navigational equipment, publications, and charts. All Navy Option Midshipmen are required to take this course. (Spring term only)

Corequisites: NSC 202L

NSC 202L Navigation Laboratory 1 Credit (0,1)

Laboratory work in piloting and celestial navigation to complement NSC 202. One hour per week, either Tuesday or Thursday. All Navy Option Midshipmen are required to take this course. (Spring term only)

NSC 299 Naval Science Special Topics 1-6 Credit

Individual independent or directed studies of selected topics.

NSC 301 Naval Engineering 3 Credits (3,0)

Naval ship systems including hydrodynamic forces, stability, compartmentalization, electrical, and auxiliary systems. Theory and design of steam, gas turbine, and nuclear propulsion. Shipboard safety and firefighting.

Prerequisites: MA 111 and PS 103

NSC 302 Naval Weapons Systems 3 Credits (3,0)

An introduction to the theory of weapons systems through the study of the fundamental principles of sensor, tracking, computational, and weapons delivery subsystems. Explosives, fusing, and naval ordnance. Required for all Navy option midshipmen. Not required for Marine Corps option midshipmen.

NSC 310 Evolution of Warfare 3 Credits (3,0)

This course is a survey of the art and concepts of warfare focused on selected historical periods. The intent of the curriculum is to build an understanding of the interrelations of political, strategic, operational, tactical, and technical levels of war. In addition, the course will introduce the student to the Marine Corps' doctrinal publication MCDP-1 "Warfighting". The text will serve as the "lens" through which to examine historical battles. Finally, we will also study the application of these same concepts and principles in the context of modern warfare and their relevance and application in future conflicts.

NSC 311 Fundamentals of Maneuver Warfare 3 Credits (3,0)

This course introduces broad aspects of warfare and exposes students to maneuver warfare doctrine. It examines these ideas in the context of the warfighting philosophy of United States Marine Corps with the goal of producing students who can think critically and act decisively. The curriculum also examines historical influences on the current tactical, operational, and strategic environment and explores a way forward using maneuver warfare philosophy.

NSC 401 Naval Operations and Seamanship 3 Credits (3,0)

This course provides an understanding of organizational interrelationships between authority, responsibility, and accountability, the concept of naval command and control, and concepts and philosophies of joint operations. Included is the study of ship handling, relative motion, basic forms of naval communications, and U.S. and adversarial weapons systems and platforms. All Navy Option Midshipmen are required to take this course. (Fall term only)

Corequisites: NSC 401L

NSC 401L Naval Operations and Seamanship Laboratory 1 Credit (0,1)

Laboratory work in maneuvering board (vector analysis) and communications, and conflict resolution to complement NSC 401. One hour per week, either Tuesday or Thursday. All Navy Option Midshipmen are required to take this course. (Fall term only)

NSC 402 Principles of Naval Management II/Leadership and Ethics 3 Credits (3,0)

This is the capstone leadership course for the four-year continuum of leadership development in NROTC. This course provides an understanding of the integration of professional competencies and qualities of effective leadership with emphasis on moral and ethical responsibilities, accountability communications and military law for the junior officer. This is a required course for all midshipmen.

NSC 499 Special Topics in Naval Science 1-6 Credit

Individual independent or directed studies of selected topics.