

# NAVAL SCIENCE (U.S. NAVY & U.S. MARINE CORPS)

## Scholarship Programs

### Scholarships

NROTC offers two-, three- and four-year scholarships for those desiring to commission in the Navy or Marine Corps. Scholarships may be earned while students are enrolled in the college program. Scholarship students receive tuition and fees, a \$375 book allowance per semester and a \$250 per month subsistence allowance. This subsistence allowance gradually rises to \$400 by the student's senior year.

### Advanced Standing

Students who are not awarded a scholarship may be placed in advanced standing. Advanced standing students receive a \$350 per month subsistence allowance their junior year and \$400 per month subsistence allowance their senior year in the program.

Naval science (Navy option) scholarship students must complete one year of calculus, physics and English as well as one semester of American military history or national security policy, and a cultural course.

## Commissioned Service

Opportunities to commission in the U.S. Navy are presently available in the following unrestricted line (URL) communities: surface, subsurface, aviation, special warfare and special operations.

Opportunities to commission in the U.S. Marine Corps are available in ground and aviation specialties.

Students interested in other programs leading to commissions in either the U.S. Navy or U.S. Marine Corps are encouraged to contact the NROTC unit on campus. All commissioning programs require that the student be working toward, and receive, a college degree.

The course code for this program is NAVR.

## Requirements

The number of NROTC credit hours that may count toward degree requirements is determined by the individual colleges. Students should therefore consider their college's policy when formulating their degree plan.

Naval science coursework is offered in the fall and spring semesters only.

## Required Courses and Credits

Code	Title	Credit Hours
<b>Required Courses</b>		
NAVR 1010	Introduction to Naval Science	2
NAVR 2020	Seapower and Maritime Affairs	3
NAVR 4010	Leadership and Management	3
NAVR 4020	Leadership and Ethics	3
<b>U.S. Navy Courses</b>		
NAVR 3020	Naval Operations and Seamanship	3
NAVR 3030	Naval Engineering Systems	3

NAVR 3040	Weapons and Systems Analysis	3
NAVR 4030	Navigation	3
<b>U.S. Marine Corps Courses</b>		
NAVR 3101	Evolution of Warfare	3
NAVR 3201	Fundamentals of Maneuver Warfare	3
<b>Total Credit Hours</b>		<b>29</b>

For additional information, visit the Naval Reserve Officers Training Corps (<http://www.colorado.edu/nrotc/>) website.

## Faculty

Bodisch, J. Robert  
Colonel, Professor; M.A., Webster University; M.A., Naval War College

Cook, Lance  
Lieutenant, Assistant Professor

Hinton, J. Kai  
Lieutenant, Assistant Professor

Keziah, Brandon W.  
Gunnery Sergeant, Assistant Instructor

MacVarish, Brendan F.  
Captain, Instructor

Pembleton, Gary  
Commander, Executive Officer, Associate Professor

Robbins, M. Mikaela  
Lieutenant, Assistant Professor; B.S., U.S. Naval Academy

## Courses

### NAVR 1010 (2) Introduction to Naval Science

Introduction to the naval profession. Instruction emphasizes the mission, organization and warfare components of the Navy and Marine Corps. Included is an overview of officer and enlisted ranks and rates, training, education, Naval customs and courtesies, military justice, leadership and nomenclature. Exposes the student to the professional competencies required to become a Naval/Marine Corps officer.

**Additional Information:** Departmental Category: Naval Science

### NAVR 1020 (3) Naval Ship Systems

Naval Ship Systems

**Requisites:** Requires prerequisite course of NAVR 1010 (minimum grade D-).

### NAVR 2020 (3) Seapower and Maritime Affairs

Surveys international maritime history and provides a review of American maritime history and policy. Examines American naval involvement in regional and global conflicts, evolution in technology and management, the role of the navies in foreign policy, and the influence of seapower on history.

**Requisites:** Requires prerequisite course of NAVR 1010 (minimum grade D-).

**Additional Information:** Departmental Category: Naval Science

**NAVR 3020 (3) Naval Operations and Seamanship**

Examines the Inland and International Rules of the Nautical Road, including court interpretations, principles of relative motion and vector analysis with the maneuvering board, ship handling procedures, weather, communications, tactical operations, and maritime law.

**Requisites:** Requires prerequisite course of NAVR 1010 (minimum grade D-).

**Additional Information:** Departmental Category: Naval Science

**NAVR 3030 (3) Naval Engineering Systems**

Studies in detail ship propulsion and related auxiliary systems. Emphasizes fossil fuel and nuclear steam and gas turbine systems. Stresses design constraints imposed by unique marine environment.

**Requisites:** Requires prerequisite course of NAVR 1010 (minimum grade D-).

**Additional Information:** Departmental Category: Naval Science

**NAVR 3040 (3) Weapons and Systems Analysis**

Introduces theoretical concepts upon which modern naval weapons systems are designed and constructed. Specific areas of study include physics of underwater sound propagation, pulse radar theory, automatic tracking principles, and fundamentals of missile guidance.

**Requisites:** Requires prerequisite course of NAVR 1010 (minimum grade D-).

**Additional Information:** Departmental Category: Naval Science

**NAVR 3101 (3) Evolution of Warfare**

Traces the development of warfare, focusing on the impact of military theorists and technical developments. Assists students to acquire a sense of strategy, develop an understanding of military alternatives, and see the impact of historical precedent on military actions.

**Requisites:** Requires prerequisite course of NAVR 1010 (minimum grade D-).

**Additional Information:** Departmental Category: Naval Science

**NAVR 3201 (3) Fundamentals of Maneuver Warfare**

Prepares future military officers and other leaders for service by studying modern tactical principles, current military developments and other aspects of warfare and their interactions with and influences on maneuver warfare doctrine.

**Requisites:** Requires prerequisite course of NAVR 1010 (minimum grade D-).

**Grading Basis:** Letter Grade

**Additional Information:** Departmental Category: Naval Science

**NAVR 4010 (3) Leadership and Management**

Comprehensively studies organizational leadership. Emphasizes motivation, communication, empowerment, and needs of subordinates. Studies the role of professional and personal ethics in organizational leadership.

**Additional Information:** Departmental Category: Naval Science

**NAVR 4020 (3) Leadership and Ethics**

Studies the ethics and laws of armed conflict analyzing the leadership responsibilities of officers both in peace and in war. The curriculum focuses first on various moral, ethical and leadership philosophies followed by extensive use of case studies to reinforce the use of ethical decision-making tools. Defines the responsibilities of junior officers within the context of ethical leadership and decision making.

**Additional Information:** Departmental Category: Naval Science

**NAVR 4021 (3) Leadership and Ethics Online**

Studies the ethics and laws of armed conflict analyzing the leadership responsibilities of officers both in peace and in war. The curriculum focuses first on various moral, ethical and leadership philosophies followed by extensive use of case studies to reinforce the use of ethical decision-making tools. Defines the responsibilities of junior officers within the context of ethical leadership and decision making.

**NAVR 4030 (3) Navigation**

Offers theory and practical application in the art of navigation: charts, publications, piloting, dead reckoning, navigation aids and instruments, time, electronic fixing, global positioning system, and voyage planning.

**Requisites:** Requires prerequisite course of NAVR 1010 (minimum grade D-).

**Additional Information:** Departmental Category: Naval Science