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

Scholarship Programs
NROTC offers two-, three- and four-year scholarship programs. Navy 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 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, one semester of American military history or national security policy and a cultural course.

Commissioned Service
Opportunities for commissioned service are presently available in the unrestricted line (surface, subsurface, aviation, special warfare and special operations) in the U.S. Navy. Opportunities in ground and aviation specialties are available in the U.S. Marine Corps. 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 Navy also offers a program leading to a regular commission in the Marine Corps.

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 course work is offered in the fall and spring semesters only.

Required Courses and Credits

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAVR 1010</td>
<td>Introduction to Naval Science</td>
<td>2</td>
</tr>
<tr>
<td>NAVR 2020</td>
<td>Seapower and Maritime Affairs</td>
<td>3</td>
</tr>
<tr>
<td>NAVR 4010</td>
<td>Leadership and Management</td>
<td>3</td>
</tr>
<tr>
<td>NAVR 4020</td>
<td>Leadership and Ethics</td>
<td>3</td>
</tr>
<tr>
<td>NAVR 3020</td>
<td>Naval Operations and Seamanship</td>
<td>3</td>
</tr>
<tr>
<td>NAVR 3030</td>
<td>Naval Engineering Systems</td>
<td>3</td>
</tr>
<tr>
<td>NAVR 3040</td>
<td>Weapons and Systems Analysis</td>
<td>3</td>
</tr>
<tr>
<td>NAVR 4030</td>
<td>Navigation</td>
<td>3</td>
</tr>
</tbody>
</table>

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

Faculty
Asbury, Jonathan D
Assistant Professor; Lieutenant, US Navy; BA, University of Notre Dame

Brown, Charles W
Associate Professor; Commander, US Navy; MA, Naval War College

Colgrove, Justin C
Assistant Professor; Captain, US Marine Corps; BA, University of Colorado Boulder

Gough, Michael J
Professor; Colonel, US Marine Corps; MS, Naval Postgraduate School

Kim, Abraham
Assistant Professor; Lieutenant, US Navy; BS, United States Naval Academy

Wagner, Kyle H
Assistant Professor; Lieutenant, US Navy; BA, Nebraska Wesleyan University

Waters, Richard O
Assistant Professor; Lieutenant, US Navy

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 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.

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.

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.

Additional Information: Departmental Category: Naval Science
NAV 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.

Additional Information: Departmental Category: Naval Science

NAV 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.

Additional Information: Departmental Category: Naval Science

NAV 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.

Grading Basis: Letter Grade

Additional Information: Departmental Category: Naval Science

NAV 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

NAV 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

NAV 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.

Additional Information: Departmental Category: Naval Science