### ROTC - NAVAL SCIENCE (NAVS)

#### NAVS 1010 Intro To Naval Science (3)
Freshman/Fall. A general introduction to the naval profession and to concepts of sea power. The mission, organization, and warfare components of the U.S. Navy and Marine Corps. Overview of officer and enlisted ranks and rates, training and education, and career patterns. Naval courtesy and customs, military justice, leadership, and nomenclature. Professional competencies required to become a naval officer.

Corequisite(s): NAVS 1011.

#### NAVS 1011 Naval Science Lab (0)
The laboratory time is used to conduct close-order drill and professional education/training. Topics 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. Laboratory periods may also be used on an occasional basis to supplement the Naval Science courses and provide additional time for projects, such as navigation chart work. The Naval Science Laboratory curriculum guide lists the topics for the laboratory periods.

Course Limit: 99

#### NAVS 1020 Sea Power & Maritime Affairs (3)
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. It deals with issues of national imperatives in peacetime, as well as war, varying maritime philosophies that were interpreted into Naval strategies/doctrines, budgetary concerns which shaped force realities, and the pursuit of American diplomatic objectives. It concludes with a discussion of the Navy's strategic and structural changes at the end of the Cold War and its new focus, mission, and strategy in the post-September 11, 2001 world.

#### NAVS 1021 Sea Power & Maritime Affrs Lab (0)
The laboratory time is used to conduct close-order drill and professional education/training. Topics 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. Laboratory periods may also be used on an occasional basis to supplement the Naval Science courses and provide additional time for projects, such as navigation chart work. The Naval Science Laboratory curriculum guide lists the topics for the laboratory periods.

Corequisite(s): NAVS 1020.

#### NAVS 1060 Leadership Lab (0)
The laboratory time is used to conduct close-order drill and professional education/training. Topics 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. Laboratory periods may also be used on an occasional basis to supplement the Naval Science courses and provide additional time for projects, such as navigation chart work. The Naval Science Laboratory curriculum guide lists the topics for the laboratory periods.

#### NAVS 1290 Semester Abroad (1-20)
Freshman study abroad credit. Course may be repeated up to unlimited credit hours.

Maximum Hours: 99

#### NAVS 1940 Transfer Coursework (0-20)
Transfer Coursework at the 1000 level. Department approval may be required.

Maximum Hours: 99

#### NAVS 2000 Leadership & Management I (3)
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 and progressing through values development, interpersonal skills, management skills, and application theory. Practical applications are explored through the use of experiential exercises, readings, case studies, and laboratory discussions. Course may be repeated up to unlimited credit hours.

Corequisite(s): NAVS 1011.

Maximum Hours: 99
NAVS 2001 Leadership & Management I Lab (0)
The laboratory time is used to conduct close-order drill and professional education/training. Topics 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. Laboratory periods may also be used on an occasional basis to supplement the Naval Science courses and provide additional time for projects, such as navigation chart work. The Naval Science Laboratory curriculum guide lists the topics for the laboratory periods.

NAVS 2010 Naval Ship Systems I (3)
In this course, 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.

Corequisite(s): NAVS 1011.

NAVS 2011 Naval Ship Systems I Lab (0)
The laboratory time is used to conduct close-order drill and professional education/training. Topics 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. Laboratory periods may also be used on an occasional basis to supplement the Naval Science courses and provide additional time for projects, such as navigation chart work. The Naval Science Laboratory curriculum guide lists the topics for the laboratory periods.

NAVS 2390 Semester Abroad (1-20)
Sophomore study abroad credit. Course may be repeated up to unlimited credit hours.

Maximum Hours: 99

NAVS 2940 Transfer Coursework (0)

Maximum Hours: 99

NAVS 3010 Navigation I (3)
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. Other topics include tides, currents, effects of wind/weather, voyage planning, and an application and introduction to the international/inland rules of navigation. The course is supplemented with a review/analysis of case studies involving moral/ethical/leadership issues pertaining to the concepts listed above.

NAVS 3011 Navigation I Lab (0)
The laboratory time is used to conduct close-order drill and professional education/training. Topics 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. Laboratory periods may also be used on an occasional basis to supplement the Naval Science courses and provide additional time for projects, such as navigation chart work. The Naval Science Laboratory curriculum guide lists the topics for the laboratory periods.

Corequisite(s): NAVS 3010.

NAVS 3020 Naval Ops Analysis (3)
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. The course is supplemented with a review/analysis of case studies involving moral/ethical/leadership issues pertaining to the concepts listed above.

Corequisite(s): NAVS 1011.

NAVS 3021 Naval Ops Analysis Lab (0)
The laboratory time is used to conduct close-order drill and professional education/training. Topics 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. Laboratory periods may also be used on an occasional basis to supplement the Naval Science courses and provide additional time for projects, such as navigation chart work. The Naval Science Laboratory curriculum guide lists the topics for the laboratory periods.
NAVS 3030  Evolution of Warfare  (3)
In this course, 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.

Corequisite(s): NAVS 1011.

NAVS 3031  Evolution of Warfare Lab  (0)
The laboratory time is used to conduct close-order drill and professional education/training. Topics 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. Laboratory periods may also be used on an occasional basis to supplement the Naval Science courses and provide additional time for projects, such as navigation chart work. The Naval Science Laboratory curriculum guide lists the topics for the laboratory periods.

NAVS 3050  Fund of Maneuver Warfare  (3)
Corequisite(s): NAVS 3051.

NAVS 3051  Fund of Maneuver Warfare  (0)
Corequisite(s): NAVS 3050.

NAVS 3940  Transfer Coursework  (0-20)
Transfer Coursework at the 3000 level. Department approval may be required.

Maximum Hours: 99

NAVS 4010  Naval Ship Systems II  (3)
Junior/Spring. Theory and employment of weapons systems, including the processes of detection, evaluation, threat analysis, weapon selection, delivery, guidance, and explosives. Fire control systems and major weapons types, including capabilities and limitations. Physical aspects of radar and underwater sound. Facets of command, control, and communications as means of weapons system integration.

NAVS 4011  Naval Ship Systems II Lab  (0)
Corequisite(s): NAVS 4010.

NAVS 4020  Leadership and Ethics  (3)
Senior/Spring. The interaction of leadership, organizational behavior, and human resource management. Subordinate interviewing and counseling, performance appraisal, military and civilian law, and managerial ethics and values. This capstone course integrates professional competencies to develop understanding of the issues faced by leaders, managers, and naval officers.

NAVS 4021  Leadership & Ethics Lab  (0)
Corequisite(s): NAVS 4020.

NAVS 4030  Fundamentals Maneuver Warfare  (3)
A historical survey of the development of amphibious doctrine and the conduct of amphibious operations. The evolution of amphibious warfare in the 20th century, especially during World War II. Present-day potential and limitations on amphibious operations, including the concept of rapid deployment force.

Corequisite(s): NAVS 4031.

NAVS 4031  Fundamentals Maneuver Warfare  (0)
Corequisite(s): NAVS 4030.

NAVS 4890  Service Learning  (0-1)
Students complete a service activity in the community in conjunction with the content of a three-credit co-requisite course. Course may be repeated up to unlimited credit hours.

Maximum Hours: 99
NAVS 4910  Independent Study  (3)
Independent study.

NAVS 4940  Transfer Coursework  (0-20)
Transfer coursework at the 4000 level. Departmental approval required.

Maximum Hours: 99

NAVS 5190  Semester Abroad  (1-20)
Semester abroad. Course may be repeated up to unlimited credit hours.

Maximum Hours: 99

NAVS 5380  Junior Year Abroad  (1-20)
Junior year abroad. Course may be repeated up to unlimited credit hours.

Maximum Hours: 99

NAVS 5390  Junior Year Abroad  (1-20)
Junior year abroad. Course may be repeated up to unlimited credit hours.

Maximum Hours: 99

NAVS 5940  Transfer Coursework  (0-20)
Transfer coursework at the 5000 level. Departmental approval required.

Maximum Hours: 99