

# Military Affairs

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## Overview

The Military Affairs Program, within the Division of Undergraduate and Interdisciplinary Studies (UGIS), comprises the three distinct military officers' commissioning programs: Air Force Reserve Officers' Training Corps (ROTC), Army ROTC, and Naval ROTC. The purpose of the program is to integrate the educational offerings of the separate military services into the regular University curricula. In performing academic functions, the Military Affairs Unit operates the same as any other program within UGIS. Its military faculty members, though nominated by the three military services, are subject to the same selection process as other UC Berkeley faculty members, and the Academic Senate's Committee on Courses must approve its curriculum. Military Affairs courses are open to all Berkeley students, as well as to students from other East Bay colleges under cross-enrollment agreements or through UC Berkeley Extension.

No undergraduate majors or minors or graduate degrees are offered in any of the following programs; they are designed to supplement a student's degree program.

## Aerospace Studies (Air Force ROTC)

The Department of Aerospace Studies offers students, in virtually all academic areas, the opportunity to qualify for a commission as a 2<sup>nd</sup> Lieutenant in the United States Air Force while simultaneously completing university degree requirements. Each eligible student must have at least three full academic years remaining in his/her bachelor's degree program; under certain circumstances, an Air Force Reserve Officers' Training Corps (AFROTC) cadet may finish the AFROTC program while simultaneously completing one year of a graduate degree program.

Students interested in AFROTC are eligible to compete for scholarships which cover the costs of tuition, books, and most fees. In addition, a \$300–\$500 monthly living allowance is paid to each student on scholarship. Cadets competing for scholarships should contact the Recruiting Flight Commander at 510-642-3572 or visit the AFROTC Scholarships website (<https://www.afrotc.com/scholarships>).

The AFROTC Detachment at Berkeley emphasizes student participation and involvement. Classes are conducted as seminars and call for active student discussion. In addition, there is a weekly two-hour leadership laboratory that is mandatory for all AFROTC cadets. In this laboratory, students become involved in the management of their own cadet organization. Cadets also participate in volunteer projects, visits to Air Force bases, and various community outreach programs.

Completion of the program to earn a commission as an Air Force 2<sup>nd</sup> Lieutenant requires enrollment during each semester in a specified course in Aerospace Studies or Military Affairs. The normal sequence for the four-year program is as follows: freshman (fall and spring); sophomores, AEROSPC 2A (fall and spring); juniors (fall and spring); seniors (fall and spring). The freshman and sophomore courses are each one credit hour, and the junior and senior courses are both three credits each.

Aerospace Studies courses are open to all University students; students from other institutions may participate in the AFROTC program through cross-enrollment arrangements or through the University Extension.

For further information on enrollment requirements and procedures, contact the Recruiting Flight Commander at 510-642-3572, [afrotc@military.berkeley.edu](mailto:afrotc@military.berkeley.edu), and check out the AFROTC Detachment 85 website (<http://airforcerotc.berkeley.edu>).

## Military Science (Army ROTC)

The Army Officer Education Program offers a variety of credit courses focused on the study of the military as an institution, adventure training opportunities, and a program of laboratory work in practical military skills. The program provides an opportunity to examine service in the Army while earning a baccalaureate degree. A student who completes the program may earn a commission in the Regular Army, Army Reserve, or National Guard.

Graduate or undergraduate students can complete the Military Science requirements through a four-year, three-year, or two-year program. The four-year and three-year programs involve the Basic and Advanced Courses; the two-year program involves only the Advanced Course. The Army Reserve Officers' Training Course (ROTC) Basic Course consists of two distinct components: the classroom introduction to the Army profession and officership of the Military Science and Leadership (MSL) I year, and the experiential examination of leadership, decision-making, and group process of the MSL-II year. Both Basic Course years are designed to enhance student interest in ROTC and the Army.

MSL-I lessons provide an overview of the key subjects of pre-commissioning, which will be treated in much greater depth in the Advanced Course. The MSL-II year places cadets in a wide variety of group exercises designed to emphasize various professional leadership competencies and insights. These events are held both inside the classroom and in outdoor settings. The instructor, acting as facilitator, helps guide student processing, or after-action reviews, of the events to derive the leadership, group dynamics, and problem-solving lessons that the exercises offer. In addition to military skills, practical "life skills" are emphasized throughout the two years.

Cadets may also be required to attend Basic Camp, a four-week summer ROTC training experience at Fort Knox, Kentucky. By the end of the Basic Course, cadets should possess a basic understanding of the unique aspects of the officer corps, individual fitness, and healthy lifestyle. The lessons are designed to maximize cadet participation, inspire intellectual curiosity, and stimulate self-study. Upon completion of the course, cadets are eligible to enter the Advanced Course.

The Army ROTC Advanced Course is composed of four courses, MIL SCI 131, MIL SCI 132, MIL SCI 141, and MIL SCI 142, and Advanced Camp, which is a mandatory four-week leader development training course conducted during the summer at Fort Knox, Kentucky.

The Advanced Course is designed to teach all knowledge, skills, and attitudes for commissioning as a new second lieutenant, and to establish a sound foundation for a career as a commissioned Army officer. The content and methods of the Advanced Course assume no prior cadet experience or other military training. This approach is taken because the Advanced Course comprises the minimum curriculum that an individual must complete in order to be commissioned. Advanced Course lessons are carefully sequenced and linked and are progressive in their treatment of key officer knowledge and competencies. Students are encouraged to synthesize lessons to form broader perspectives, deeper insights, and more robust problem-solving abilities by the use of earlier lessons. Topics are designed to facilitate entry into military service at the completion of the MIL SCI 142 term.

The two-year program begins with direct placement in the Advanced Course. It is available to undergraduate or graduate students, who have completed any of the following: enlisted military service, completion of ROTC Basic Camp, or three years of Junior ROTC. Students must also be academic juniors or higher with at least two academic years left until completion of their degree when they enter the Advanced Course.

## Naval Science (Naval ROTC)

The Department of Naval Science offers a program of instruction for men and women leading to commissions in either the US Navy or US Marine Corps. Naval Science courses are open to all university students or, subject to approval, may be taken through UC Berkeley Extension.

Students enrolled in the Naval ROTC program will normally complete the following courses during their first two years as part of their overall academic load: NAV SCI 1, NAV SCI 2, NAV SCI 3, and NAV SCI 10. Navy Option students will then complete the following courses during their junior and senior years: NAV SCI 12A, NAV SCI 12B, NAV SCI 401, and NAV SCI 412. Marine Option students will participate in a Marine seminar and complete the History of Littoral Warfare (MIL AFF 154) and Evolution of Warfare (MIL AFF 20). All Navy Option scholarship students must complete one year of calculus and one year of calculus-based physics by the end of their sophomore and junior years respectively.

Students are also required to attend weekly professional development laboratories each Thursday. These three-hour sessions offer the student midshipman an active role in the management and direction of the midshipman battalion and provide time for the midshipmen to explore professional topics. Student midshipmen also participate in four-to-six week summer training cruises throughout the world. While at sea and serving alongside Sailors and Officers, they apply theoretical aspects of their education and training to the real-world environment of the U.S. Navy. Marine Option midshipmen attend Marine Corps Officer Candidates School in the summer between their junior and senior year.

To learn more about various NROTC scholarship opportunities, selection criteria, and the application process, please visit <http://www.nrotc.navy.mil/scholarships.html>.

## Select a subject to view courses

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## Aerospace Studies

Expand all course descriptions [+] Collapse all course descriptions [-]

## AEROSPC 1A Foundations of the U.S. Air Force 1 Unit

Terms offered: Spring 2020, Fall 2019, Spring 2019

This course introduces students to the United States Air Force (USAF) and Air Force Reserve Officer Training Corps (AFROTC) with an overview of the basic characteristics, missions, and organization of the Air Force; additional topics include officership and professionalism, Air Force career opportunities, military customs and courtesies, and an introduction to USAF basic communication skills. Additionally, AFROTC cadets must attend weekly Leadership Lab. Leadership Lab is a weekly laboratory that touches on the topics of Air Force customs and courtesies, health and physical fitness, and drills and ceremonies. Foundations of the U.S. Air Force: Read More [+]

### Hours & Format

**Fall and/or spring:** 15 weeks - 1 hour of lecture per week

### Additional Details

**Subject/Course Level:** Aerospace Studies/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

Foundations of the U.S. Air Force: Read Less [-]

## AEROSPC 1B Foundations of the U.S. Air Force 1 Unit

Terms offered: Spring 2020, Spring 2019, Spring 2018

A survey course designed to introduce cadets to the U.S. Air Force and the Air Force Reserve Officer Training Corps (AFROTC). Featured topics include the history and structure of the U.S. Air Force, the Air Force's capabilities, career opportunities, benefits, Air Force installations, and communications skills. Additionally, AFROTC cadets must attend Leadership Lab. Leadership Lab is a weekly laboratory that touches on the topics of Air Force customs and courtesies, health and physical fitness, and drills and ceremonies. Foundations of the U.S. Air Force: Read More [+]

### Hours & Format

**Fall and/or spring:** 15 weeks - 1 hour of lecture per week

### Additional Details

**Subject/Course Level:** Aerospace Studies/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

Foundations of the U.S. Air Force: Read Less [-]

## AEROSPC 2A The Evolution of Air and Space Power 1 Unit

Terms offered: Fall 2019, Fall 2018, Fall 2017

This course examines the general aspects of air/space power through historical study and analysis, providing students with knowledge of the capabilities, functions, and doctrinal employment of air/space forces. It covers the period from the first balloons and dirigibles to the employment of air/space power during the Cold War, utilizing historical/operational examples to highlight the development of USAF core competencies, capabilities, and missions that underpin the evolution of today's USAF. This course emphasizes oral/written communication skills development. AFROTC cadets must also attend Leadership Lab, a weekly lab providing practical experience in areas like customs and courtesies, health/physical fitness, and drill and ceremonies.

The Evolution of Air and Space Power: [Read More](#) [+]

### Rules & Requirements

**Repeat rules:** Course may be repeated for credit without restriction.

### Hours & Format

**Fall and/or spring:** 15 weeks - 1 hour of lecture per week

### Additional Details

**Subject/Course Level:** Aerospace Studies/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

The Evolution of Air and Space Power: [Read Less](#) [-]

## AEROSPC 2B The Evolution of Air and Space Power 1 Unit

Terms offered: Spring 2020, Spring 2019, Spring 2018

This course examines the general aspects of air/space power through a historical perspective, as well as fundamental truths associated with war (e.g., principles of war and tenets of air/space power). As a whole, this course provides students with a knowledge level understanding for the element and employment of air/space power, from an institutional, doctrinal, and historical perspective. Students will also conduct writing and briefing assignments to meet Air Force communication skills requirements. Additionally, AFROTC cadets must attend Leadership Lab, a weekly laboratory that provides practical experience in key areas to include Air Force customs and courtesies, health/physical fitness, and drill and ceremonies.

The Evolution of Air and Space Power: [Read More](#) [+]

### Hours & Format

**Fall and/or spring:** 15 weeks - 1 hour of lecture per week

### Additional Details

**Subject/Course Level:** Aerospace Studies/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

The Evolution of Air and Space Power: [Read Less](#) [-]

## AEROSPC 100 Leadership Laboratory 0.0 Units

Terms offered: Spring 2020, Fall 2019, Spring 2019

Leadership Lab (LLAB) represents the hands-on portion of the Aerospace Studies courses. It presents a dynamic and integrated grouping of leadership developmental activities. LLAB is a student planned, organized, and executed practicum intended to maximize cadet leadership experience and preparation for easy transition to their active duty assignments. It is conducted under the supervision of AFROTC cadre. The course focuses on the leadership experiences of senior and junior cadets and provides training in basic military knowledge and skills to underclass cadets. Cadets are trained on proper uniform wear, grooming and appearance requirements, physical fitness, knowledge of military customs and courtesies, and military drill and ceremony.

Leadership Laboratory: [Read More](#) [+]

### Rules & Requirements

**Prerequisites:** Consent of instructor

**Credit Restrictions:** For Air Force cadets only.

### Hours & Format

**Fall and/or spring:** 15 weeks - 2 hours of laboratory per week

### Additional Details

**Subject/Course Level:** Aerospace Studies/Undergraduate

**Grading/Final exam status:** Offered for pass/not pass grade only. Final exam not required.

Leadership Laboratory: [Read Less](#) [-]

## AEROSPC 135A Leadership Studies 3 Units

Terms offered: Fall 2019, Fall 2018, Fall 2017

This course is a study of leadership, management fundamentals, professional knowledge, and communication skills required of an Air Force junior officer. Lecture, text, case studies, and class discussion will be used to examine all aspects of leadership including counseling, mentoring, empowering, problem solving, accountability and authority. Students will develop upon basic written and oral communications skills primarily through written assignments and oral presentations.

Leadership Studies: [Read More](#) [+]

### Rules & Requirements

**Prerequisites:** 135A is a prerequisite to 135B or consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of seminar per week

### Additional Details

**Subject/Course Level:** Aerospace Studies/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Emerson

Leadership Studies: [Read Less](#) [-]

## AEROSPC 135B Leadership Studies 3 Units

Terms offered: Spring 2020, Spring 2019, Spring 2018

This course is a study of leadership, management fundamentals, professional knowledge, and communication skills required of an Air Force junior officer. Lecture, text, case studies, and class discussion will be used to examine all aspects of leadership including counseling, mentoring, empowering, problem solving, accountability and authority. Students will develop upon basic written and oral communications skills primarily through written assignments and oral presentations. Leadership Studies: Read More [\[+\]](#)

### Rules & Requirements

**Prerequisites:** 135A or consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of seminar per week

### Additional Details

**Subject/Course Level:** Aerospace Studies/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Emerson

Leadership Studies: Read Less [\[-\]](#)

## Military Affairs

Expand all course descriptions [\[+\]](#)Collapse all course descriptions [\[-\]](#)

## MIL AFF 1 Military Physical Fitness 1 Unit

Terms offered: Spring 2020, Fall 2019, Spring 2019

This course teaches the fundamentals of physical fitness employed by the U.S. military to condition ROTC cadets for the physical demands they will face as military officers. The course consists of rigorous physical training under the supervision of military officers and noncommissioned officers. The goal of this course is to not only enhance one's level of physical fitness, but also to develop leadership qualities in the conduct and planning of physical fitness training. Physical training will include, but is not limited to: running up to five miles, team sports, aerobics, and other activities.

Military Physical Fitness: Read More [\[+\]](#)

### Rules & Requirements

**Prerequisites:** Consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of session per week

### Additional Details

**Subject/Course Level:** Military Affairs/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam not required.

Military Physical Fitness: Read Less [\[-\]](#)

## MIL AFF 145A National Security Forces in Contemporary American Society 3 Units

Terms offered: Fall 2019, Fall 2018, Fall 2017

Conceptually examines the Armed Forces as an integral element of American society. Examines contemporary issues in civil-military relations and the national and international environment in which U.S. defense policy is formulated and implemented.

National Security Forces in Contemporary American Society: Read More [\[+\]](#)

### Rules & Requirements

**Prerequisites:** Upper division standing and consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of seminar per week

### Additional Details

**Subject/Course Level:** Military Affairs/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

National Security Forces in Contemporary American Society: Read Less [\[-\]](#)

## MIL AFF 145B Preparation for Active Duty 3 Units

Terms offered: Spring 2020, Spring 2019, Spring 2018

This course focuses on commissioning of cadets and their transition to active duty. The primary focus of instruction is officership, professionalism, and leadership. Topics for specific discussion include the military justice system, military ethics, core values, military professionalism and current issues affecting the Air Force, and a general introduction to base functions designed to ease cadets' transition to active duty. This course combines lecture and discussion with increased emphasis on the students' written and oral communication skills.

Preparation for Active Duty: Read More [\[+\]](#)

### Rules & Requirements

**Prerequisites:** Upper division standing and consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

### Additional Details

**Subject/Course Level:** Military Affairs/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

Preparation for Active Duty: Read Less [\[-\]](#)

## MIL AFF 180 Philosophy of Leadership 4 Units

Terms offered: Spring 2020

What is leadership? Does leadership remain fundamentally the same when you change scale or purpose, or does it in some way become fundamentally different? What is good leadership? Are the virtues of leadership universal and unchanging, or are they relative to your historical circumstances? Who can be a leader? Can leadership be taught, or is it something you are born with? How do we gain knowledge about leadership? Can we learn leadership through logic, reasoning from fundamental ideas, or do we require experimentation and empirical evidence? These are some of the questions we will be investigating through the close reading of classic texts on the philosophy of leadership, such as Plato's Statesman and Machiavelli's The Prince.

Philosophy of Leadership: Read More [\[+\]](#)

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 1 hour of discussion per week

### Additional Details

**Subject/Course Level:** Military Affairs/Undergraduate

**Grading/Final exam status:** Letter grade. Alternative to final exam.

**Instructor:** Emerson

Philosophy of Leadership: Read Less [\[-\]](#)

## MIL AFF 199 Supervised Independent Study and Research 1 - 4 Units

Terms offered: Spring 2020, Fall 2019, Spring 2019

Supervised independent study and research for undergraduate students who desire to pursue topics of their own selection.

Supervised Independent Study and Research: Read More [\[+\]](#)

### Rules & Requirements

**Prerequisites:** Upper division standing and consent of the instructor

**Repeat rules:** Course may be repeated for credit without restriction.

### Hours & Format

**Fall and/or spring:** 15 weeks - 0 hours of independent study per week

**Summer:** 6 weeks - 2.5-10 hours of independent study per week

### Additional Details

**Subject/Course Level:** Military Affairs/Undergraduate

**Grading/Final exam status:** Offered for pass/not pass grade only. Final exam not required.

Supervised Independent Study and Research: Read Less [\[-\]](#)

## Military Science

Expand all course descriptions [\[+\]](#)Collapse all course descriptions [\[-\]](#)

## MIL SCI 1 Leadership Laboratory 0.0 Units

Terms offered: Spring 2020, Fall 2019, Spring 2019

The instruction includes organization and management of military units, physical training, drill and ceremonies, land navigation techniques, survival skills, and extensive first aid training.

Leadership Laboratory: Read More [\[+\]](#)

### Rules & Requirements

**Credit Restrictions:** The laboratory may be taken for eight semesters.

**Repeat rules:** Course may be repeated for credit without restriction.

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of laboratory per week

**Summer:** 8 weeks - 4 hours of laboratory per week

### Additional Details

**Subject/Course Level:** Military Science/Undergraduate

**Grading/Final exam status:** Offered for pass/not pass grade only. Final exam not required.

Leadership Laboratory: Read Less [\[-\]](#)

## MIL SCI 2 Introduction to the Army and Critical Thinking 1 Unit

Terms offered: Fall 2019, Fall 2018, Fall 2017

The purpose of this one credit hour seminar style course is to introduce the student to issues and competencies that are central to a commissioned officer's responsibilities. These initial lessons establish a framework for understanding officership, leadership, and the Army values. Additionally, the semester addresses "life skills" including comprehensive fitness, goal setting, cultural understanding, and time management. This course is designed to give accurate insight into the Army profession and the officer's role within the Army and to lay the foundation for further leadership development.

Introduction to the Army and Critical Thinking: Read More [\[+\]](#)

### Hours & Format

**Fall and/or spring:** 15 weeks - 1 hour of lecture per week

### Additional Details

**Subject/Course Level:** Military Science/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

Introduction to the Army and Critical Thinking: Read Less [\[-\]](#)



## MIL SCI 3 Introduction to the Profession of Arms 1 Unit

Terms offered: Spring 2020, Spring 2019, Spring 2018

This course overviews leadership fundamentals such as setting direction, problem-solving, listening, presenting briefings, providing feedback, and using effective writing skills. Students will explore dimensions of leadership attributes and core leader competencies in the context of practical, hands-on, and interactive exercises.

Introduction to the Profession of Arms: Read More [+]

### Hours & Format

**Fall and/or spring:** 15 weeks - 1 hour of lecture per week

### Additional Details

**Subject/Course Level:** Military Science/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Barnes

Introduction to the Profession of Arms: Read Less [-]

## MIL SCI 100 Leadership and Decision Making 2 Units

Terms offered: Fall 2019, Fall 2018, Fall 2017

The purpose of this two credit hour course is to develop the student's knowledge of self-awareness, self-confidence, and individual leadership skills. Through experiential learning activities, students develop problem solving and critical thinking skills, and apply communication, feedback, and conflict resolution skills. The course includes an introduction to the Army's operations order and troop leading procedures in the context of decision making applications.

Leadership and Decision Making: Read More [+]

### Hours & Format

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

### Additional Details

**Subject/Course Level:** Military Science/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

Leadership and Decision Making: Read Less [-]

## MIL SCI 101 Army Doctrine and Team Development 2 Units

Terms offered: Spring 2020, Spring 2019, Spring 2018

This course examines the challenges of leading tactical teams in the complex contemporary operating environment (COE). This course highlights the application of Army doctrine for offensive and defensive operations as context for tactical decision making and team building. Further study of the theoretical basis of the Army Leadership Requirements Model explores the dynamics of adaptive leadership in the face of ethical and cultural dilemmas.

Army Doctrine and Team Development: Read More [+]

### Hours & Format

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

### Additional Details

**Subject/Course Level:** Military Science/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Instructor:** Barnes

Army Doctrine and Team Development: Read Less [-]

## MIL SCI 131 Training Management and the Warfighting Functions 3 Units

Terms offered: Fall 2019, Fall 2018, Fall 2017

This course studies the practice and application of the fundamentals of Army leadership, officership, Army values and ethics, personal development, and small unit tactics. Students will focus on how to train fundamental tactical skills and explore the Army's capabilities and limitations within each warfighting function.

Training Management and the Warfighting Functions: Read More [+]

### Rules & Requirements

**Prerequisites:** Consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

### Additional Details

**Subject/Course Level:** Military Science/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam not required.

Training Management and the Warfighting Functions: Read Less [-]

## MIL SCI 132 Applied Leadership in Small Unit Operations 3 Units

Terms offered: Spring 2020, Spring 2019, Spring 2018

This course examines the role communications, values, and ethics play in effective leadership at the platoon level. Topics covered include ethical decision-making, consideration of others, emotional intelligence, and a survey Army leadership doctrine. There is also added emphasis on improving each student's oral and written communication abilities.

Applied Leadership in Small Unit Operations: [Read More](#) [+]

### Rules & Requirements

**Prerequisites:** Consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

**Summer:** 3 weeks - 11.5 hours of lecture per week

### Additional Details

**Subject/Course Level:** Military Science/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam not required.

Applied Leadership in Small Unit Operations: [Read Less](#) [-]

## MIL SCI 141 The Army Officer 3 Units

Terms offered: Fall 2019, Fall 2018, Fall 2017

This course explores the application of mission command and the Army profession to address the dynamics of leading in the complex situations of current military operations. Students will examine differences in culture, military law, principles of war, and rules of engagement in the face of international terrorism. Students will also explore aspects of interacting with non-government organizations, civilians on the battlefield, and host nation support. The course places significant emphasis on developing the characteristics of an effective Army officer by utilizing historical case studies and scenarios to prepare students to face complex ethical leadership challenges.

The Army Officer: [Read More](#) [+]

### Rules & Requirements

**Prerequisites:** Consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

### Additional Details

**Subject/Course Level:** Military Science/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

The Army Officer: [Read Less](#) [-]

## MIL SCI 142 Company Grade Leadership 3 Units

Terms offered: Spring 2020, Spring 2019, Spring 2018

This course explores leadership in a complex operational environment and applies the Army's operating concept and doctrine to conduct battle analysis briefings and to research the impacts of global partners, threats, challenges, and opportunities (PTCO). It introduces practical platoon leader knowledge for unit relationships, maintenance, supply, and finance requirements. Students will examine the Art of Command by using mission command scenarios to prepare them to face the complex ethical demands inherent in serving as a commissioned officer in the United States Army.

Company Grade Leadership: [Read More](#) [+]

### Rules & Requirements

**Prerequisites:** Consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

### Additional Details

**Subject/Course Level:** Military Science/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

Company Grade Leadership: [Read Less](#) [-]

[Expand all course descriptions](#) [+][Collapse all course descriptions](#) [-]

## NAV SCI 1 Introduction to Naval Science 2 Units

Terms offered: Fall 2019, Fall 2018, Fall 2017

This curriculum provides guidelines for introducing students to the organization of the Department of Defense and the naval service, the long-held customs and traditions of the service, basic leadership, ethics and character development, the duties of a junior officer, and basic information concerning shipboard procedures and safety. It is the intent of this course to stimulate the students' interest for study and investigation in future courses.

Introduction to Naval Science: [Read More](#) [+]

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

### Additional Details

**Subject/Course Level:** Naval Science/Undergraduate

**Grading/Final exam status:** Letter grade. Alternative to final exam.

Introduction to Naval Science: [Read Less](#) [-]

## NAV SCI 2 Sea Power and Maritime Affairs 2 Units

Terms offered: Spring 2020, Spring 2019, Spring 2018

Traces the U.S. historical evolution of sea power, its concepts, theories and applications. Emphasizes the impact of world situation, U.S. national interest, changing technology, and naval leadership on the evolving concept of sea power. Relates historical developments to current trends. Examines briefly the U.S. Merchant Marine's and the former Soviet Navy's impact on sea power policy formulation.

Sea Power and Maritime Affairs: [Read More](#) [+]

### Rules & Requirements

**Prerequisites:** Consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 2 hours of lecture per week

**Summer:** 10 weeks - 3 hours of lecture per week

### Additional Details

**Subject/Course Level:** Naval Science/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

Sea Power and Maritime Affairs: [Read Less](#) [-]

## NAV SCI 3 Leadership and Management I 3 Units

Terms offered: Fall 2019, Fall 2018, Fall 2017

This course will cover basic management, decision making, and moral leadership. The student will learn to establish meaningful goals, prioritize among competing demands, and plan and forecast in a task-centered organization. The course includes exposure to measures of organizational effectiveness, methods to overcome resistance to change, effective communications, and techniques to aid in counseling, team building, and resolution of disciplinary and personnel matters.

Leadership and Management I: [Read More](#) [+]

### Hours & Format

**Fall and/or spring:** 10 weeks - 3 hours of lecture per week

### Additional Details

**Subject/Course Level:** Naval Science/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam not required.

Leadership and Management I: [Read Less](#) [-]

## NAV SCI 10 Naval Ship Systems I 3 Units

Terms offered: Spring 2020, Spring 2018, Spring 2017

Principles of design and operation of ships. Emphasis on description and analysis of major types of propulsion plants, both conventional and nuclear. Principles of thermodynamic cycles, electrical theory, power generation and distribution, auxiliary machinery systems. Ship construction, strength and stability in intact and damaged conditions. Factors and design criteria for seaworthiness, structural integrity, and operational employment.

Naval Ship Systems I: [Read More](#) [+]

### Rules & Requirements

**Prerequisites:** Mathematics 1A or 16A

**Repeat rules:** Course may be repeated for credit with instructor consent.

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

### Additional Details

**Subject/Course Level:** Naval Science/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

Naval Ship Systems I: [Read Less](#) [-]

## NAV SCI 12A Navigation and Naval Operations I 3 Units

Terms offered: Spring 2020, Spring 2019, Fall 2017

Theory, principles, and procedures of terrestrial and celestial navigation and piloting techniques. A study of coordinating systems, including the celestial coordinate system, nautical charts and publications, position fixing, dead reckoning, nautical astronomy, the theory and methods of celestial navigation, and the theory and prediction of tides and current.

Navigation and Naval Operations I: [Read More](#) [+]

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 1 hour of laboratory per week

### Additional Details

**Subject/Course Level:** Naval Science/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam not required.

Navigation and Naval Operations I: [Read Less](#) [-]



## NAV SCI 12B Navigation and Naval Operations II 3 Units

Terms offered: Fall 2019, Fall 2018, Spring 2018

Introduction to the various aspects of ship operations at sea. Principles of terrestrial navigation including the rules of the road for prevention of collisions at sea, vector analysis of relative motion, ship behavior and characteristics in maneuvering, precise ship positioning, use of aids to navigation, meteorology, and electronic navigation.

Navigation and Naval Operations II: Read More [\[+\]](#)

### Rules & Requirements

**Prerequisites:** 12A or consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture and 1 hour of laboratory per week

### Additional Details

**Subject/Course Level:** Naval Science/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

Navigation and Naval Operations II: Read Less [\[-\]](#)

## NAV SCI 20 Evolution of Warfare 3 Units

Terms offered: Not yet offered

Progressive analysis of the evolution of warfare from the ancient world to the present. Emphasis placed on causes of continuity and/or change of methods, as well as the influence of economic, moral, political, and technological factors on strategic thought.

Evolution of Warfare: Read More [\[+\]](#)

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

### Additional Details

**Subject/Course Level:** Naval Science/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Formerly known as:** Military Affairs 20

Evolution of Warfare: Read Less [\[-\]](#)

## NAV SCI 154 Fundamentals of Maneuver Warfare 3 Units

Terms offered: Spring 2020

This course 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.

Fundamentals of Maneuver Warfare: Read More [\[+\]](#)

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

### Additional Details

**Subject/Course Level:** Naval Science/Undergraduate

**Grading/Final exam status:** Letter grade. Final exam required.

**Formerly known as:** Military Affairs 154

Fundamentals of Maneuver Warfare: Read Less [\[-\]](#)

## Naval Science

Expand all course descriptions [\[+\]](#)Collapse all course descriptions [\[-\]](#)

## NAV SCI 400C Naval Laboratory 0.0 Units

Terms offered: Fall 2019, Fall 2018, Fall 2017

Emphasis is placed on professional training not of an academic nature. The laboratory is intended for topics such as drill and ceremonies, physical fitness and swimming testing, cruise preparation, cruise evaluation, sail training, safety awareness, preparation for commissioning, personal finances, insurance, and applied exercises in naval ship systems, navigation, naval operations, naval administration, and military justice. Other topics and special briefings will be conducted as determined by the Chief of Naval Education and Training or the Professor of Naval Science.

Naval Laboratory: Read More [\[+\]](#)

### Rules & Requirements

**Prerequisites:** Consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of laboratory per week

### Additional Details

**Subject/Course Level:** Naval Science/Other professional

**Grading:** Offered for pass/not pass grade only.

**Instructor:** Broihier

Naval Laboratory: Read Less [\[-\]](#)

## NAV SCI 400D Naval Laboratory 0.0 Units

Terms offered: Spring 2011, Spring 2010, Spring 2009

Emphasis is placed on professional training not of an academic nature. The laboratory is intended for topics such as drill and ceremonies, physical fitness and swimming testing, cruise preparation, cruise evaluation, sail training, safety awareness, preparation for commissioning, personal finances, insurance, and applied exercises in naval ship systems, navigation, naval operations, naval administration, and military justice. Other topics and special briefings will be conducted as determined by the Chief of Naval Education and Training or the Professor of Naval Science.

Naval Laboratory: Read More [a]

### Rules & Requirements

**Prerequisites:** Consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of laboratory per week

### Additional Details

**Subject/Course Level:** Naval Science/Other professional

**Grading:** Offered for pass/not pass grade only.

Naval Laboratory: Read Less [-]

## NAV SCI 400E Naval Laboratory 0.0 Units

Terms offered: Spring 2020, Spring 2019, Spring 2018

Emphasis is placed on professional training not of an academic nature. The laboratory is intended for topics such as drill and ceremonies, physical fitness and swimming testing, cruise preparation, cruise evaluation, sail training, safety awareness, preparation for commissioning, personal finances, insurance, and applied exercises in naval ship systems, navigation, naval operations, naval administration, and military justice. Other topics and special briefings will be conducted as determined by the Chief of Naval Education and Training or the Professor of Naval Science.

Naval Laboratory: Read More [a]

### Rules & Requirements

**Prerequisites:** Consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of laboratory per week

### Additional Details

**Subject/Course Level:** Naval Science/Other professional

**Grading:** Offered for pass/not pass grade only.

Naval Laboratory: Read Less [-]

## NAV SCI 401 Naval Ship Systems II 3 Units

Terms offered: Fall 2019, Fall 2018, Fall 2017

An introduction to the physical theory of acoustic and electromagnetic wave generation and propagation; the design and use of electronic, electromechanical, and pneumatic systems; and the combination of these systems to perform detection and analysis of objects sharing and traversing common environments.

Naval Ship Systems II: Read More [a]

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

### Additional Details

**Subject/Course Level:** Naval Science/Other professional

**Grading:** Letter grade.

Naval Ship Systems II: Read Less [-]

## NAV SCI 412 Leadership and Ethics 3 Units

Terms offered: Spring 2020, Spring 2019, Spring 2018

This course is the capstone leadership course. It is intended to provide the ethical foundation and tools required for success as a leader of a diverse work force, often under circumstances of substantial stress. The course is divided between the art of leadership and the technical aspects of integrating personnel development with the management of resources, although the emphasis is on leadership. It is designed to be given as a seminar or lecture/discussion in which principles, concepts, and concrete subjects are presented, discussed, and debated.

Leadership and Ethics: Read More [a]

### Rules & Requirements

**Prerequisites:** Consent of instructor

### Hours & Format

**Fall and/or spring:** 15 weeks - 3 hours of lecture per week

### Additional Details

**Subject/Course Level:** Naval Science/Other professional

**Grading:** Letter grade.

Leadership and Ethics: Read Less [-]