

# AEROSPACE STUDIES MINOR

## Description

### Air Force ROTC

The preparation of future Air Force officers is provided through the Air Force ROTC (AFROTC) program. Enrollment is open to any student attending the University on a full-time basis. The curriculum provides the individual with a firm understanding of the concepts of aerospace power and the Air Force mission, organization and operations.

Enrollment in AFROTC is voluntary and accomplished through the fall and spring registration periods. Scholarships are available on a competitive basis. Approximately fifty percent of the students hold scholarships.

The minor not only prepares cadets for active duty service but provides any student the opportunity to study one of our country's major instruments of power, the United States Military. In addition to studying Air Force organizations, missions and operations, the student will gain a broad perspective of the military in general by studying the history of all Department of Defense Services, thus emphasizing our country's focus on Joint Military Operations.

### Active Duty Obligation

There is no active duty obligation for enrolling in any AFROTC courses unless a student wishes to become an Active Duty Air Force Officer or accepts an Air Force scholarship. Students who complete the Air Force ROTC program and receive a commission incur a four-year active duty commitment. Flying officers serve additional commitments from the time they complete their training.

### General Program

The Air Force ROTC program consists of the General Military Course (GMC) during the freshman and sophomore years and the Professional Officer Course (POC) for the remaining years. All GMC cadets must complete a four-week field training session during the summer between their sophomore and junior years to enter the POC. Field training is a competitively selected process, and all students wishing to pursue a commission through AFROTC must attend field training.

## College Admission

The entrance requirements for the College of Arts and Sciences (CAS), including any of the majors or minors offered through the college, are the same as the University of Nebraska–Lincoln General Admission Requirements. In addition to these requirements, the College of Arts and Sciences strongly recommends a third and fourth year of one foreign language in high school. Four years of high school coursework in the same language will fulfill the College of Arts and Sciences' language requirement. It will also allow students to continue language study at a more advanced level at the University of Nebraska–Lincoln and provide more opportunity to study abroad.

## Academic and Career Advising

### Academic and Career Advising Center

Not sure where to go or who to ask? The Advising Center team in 107 Oldfather Hall can help. The Academic and Career Advising Center is the undergraduate hub for CAS students in all majors. Centrally located and easily accessed, students encounter friendly, knowledgeable people who

are eager to help or connect students to partner resources. Students also visit the Advising Center in 107 Oldfather Hall to:

- Choose or change their major, minor, or degree program.
- Check on policies, procedures, and deadlines.
- Get a college approval signature from the Dean's representatives.

CAS Career Coaches are available by appointment (in-person or zoom) and located in the CAS Academic and Career Advising Center, 107 Oldfather Hall. They help students explore majors and minors, gain experience, and develop a plan for life after graduation.

### Assigned Academic Advisors

Academic advisors are critical resources dedicated to students' academic, personal, and professional success. Every CAS student is assigned an academic advisor based on their primary major. Since most CAS students have more than just a single major, it is important to get to know the advisor for any minors or additional majors. Academic advisors work closely with the faculty to provide the best overall support and the discipline specific expertise. They are available for appointments (in-person or zoom) and through weekly virtual drop-ins. Assigned advisors are listed in MyRED (<https://its.unl.edu/myunl/>) and their offices may be located in or near the department of the major for which they advise.

Students who have declared a pre-health or pre-law area of interest will also work with advisors in the Exploratory and Pre-Professional Advising Center (Explore Center) in 127 Love South, who are specially trained to guide students preparing to enter a professional school.

For complete and current information on advisors for majors, minors, or pre-professional areas, visit <https://cas.unl.edu/major-advisors> (<https://cas.unl.edu/major-advisors/>), or connect with the Arts and Sciences Academic and Career Advising Center, 107 Oldfather Hall, 402-472-4190, [casadvising@unl.edu](mailto:casadvising@unl.edu).

### Career Coaching

The College believes that **Academics + Experience = Opportunities** and encourages students to complement their academic preparation with real-world experience, including internships, research, education abroad, service, and leadership. Arts and sciences students have access to a powerful network of faculty, staff, and advisors dedicated to providing information and support for their goals of meaningful employment or advanced education. Arts and sciences graduates have unlimited career possibilities and carry with them important career competencies—communication, critical thinking, creativity, context, and collaboration. They have the skills and adaptability that employers universally value. Graduates are prepared to effectively contribute professionally and personally with a solid foundation to excel in an increasingly global, technological, and interdisciplinary world.

Students should contact the career coaches in the Arts and Sciences Academic and Career Advising Center in 107 Oldfather Hall, or their assigned advisor, for more information. The CAS career coaches help students explore career options, identify ways to build experience and prepare to apply for internships, jobs, or graduate school, including help with resumes, applications, and interviewing.

## ACE Requirements

Students must complete one course for each of the ACE Student Learning Outcomes below. Certified course choices are published in the

degree audit, or visit the ACE website (<http://ace.unl.edu>) for the most current list of certified courses.

### ACE Student Learning Outcomes

ACE 1: Write texts, in various forms, with an identified purpose, that respond to specific audience needs, integrate research or existing knowledge, and use applicable documentation and appropriate conventions of format and structure.

ACE 2: Demonstrate competence in communication skills.

ACE 3: Use mathematical, computational, statistical, logical, or other formal reasoning to solve problems, draw inferences, justify conclusions, and determine reasonableness.

ACE 4: Use scientific methods and knowledge to pose questions, frame hypotheses, interpret data, and evaluate whether conclusions about the natural and physical world are reasonable.

ACE 5: Use knowledge, historical perspectives, analysis, interpretation, critical evaluation, and the standards of evidence appropriate to the humanities to address problems and issues.

ACE 6: Use knowledge, theories, and research perspectives such as statistical methods or observational accounts appropriate to the social sciences to understand and evaluate social systems or human behaviors.

ACE 7: Use knowledge, theories, or methods appropriate to the arts to understand their context and significance.

ACE 8: Use knowledge, theories, and analysis to explain ethical principles and their importance in society.

ACE 9: Exhibit global awareness or knowledge of human diversity through analysis of an issue.

ACE 10: Generate a creative or scholarly product that requires broad knowledge, appropriate technical proficiency, information collection, synthesis, interpretation, presentation, and reflection.

## College Degree Requirements

### College Distribution Requirements – BA and BS

The College of Arts and Sciences distribution requirements are common to both the bachelor of arts and bachelor of science degrees and are designed to ensure a range of courses. By engaging in study in several different areas within the College, students develop the ability to learn in a variety of ways and apply their knowledge from a variety of perspectives. All requirements are in addition to University ACE requirements, and no course can be used to fulfill both an ACE outcome and a College Distribution Requirement.

- A student may not use a single course to satisfy more than one College Distribution Requirement, with the exception of CDR Diversity. Courses used to meet CDR Diversity may also meet CDR Writing, CDR Humanities, or CDR Social Science.
- Independent study or reading courses and internships cannot be used to satisfy distribution requirements.
- Courses from interdisciplinary programs will be applied in the same area as courses from the home/cross-listed department.

### College Distribution Requirements

CDR: Written Communication

3

Select from courses approved for ACE outcome 1.

CDR: Natural, Physical, and Mathematical Sciences with Lab

4

Select from biochemistry, biological sciences, chemistry, computer science, geology, meteorology, mathematics, and physics. Must include one lab in the natural or physical sciences. Lab courses may be selected from biochemistry, biological sciences, chemistry, geology, meteorology, and physics.

Some courses from geography and anthropology may also be used to satisfy the lab requirement above.<sup>1</sup>

CDR: Humanities

3

Select from classics, English, film studies, history, modern languages and literatures, philosophy, and religious studies.<sup>2</sup>

CDR: Social Science

3

Select from anthropology, communication studies, geography, national security studies, political science, psychology, or sociology.<sup>3</sup>

CDR: Human Diversity in U.S. Communities

0-3

Select from a set of approved courses as listed in the degree audit.

CDR: Language

0-16

Fulfilled by the completion of the 6-credit-hour second-year sequence in a single foreign language in one of the following departments: Classics and religious studies or modern languages and literatures. Instruction is currently available in Arabic, Chinese, Czech, French, German, Greek, Japanese, Latin, Russian, and Spanish.

A student who has completed the fourth-year level of one foreign language in high school is exempt from the languages requirement, but encouraged to continue on in their language study.

Credit Hours Subtotal:

13-32

<sup>1</sup> See Degree Audit or a College of Arts and Sciences advisor for approved geography and anthropology courses that apply as natural science.

<sup>2</sup> Language courses numbered 220 and below do not fulfill the CDR Humanities.

<sup>3</sup> See Degree Audit or College of Arts and Sciences advisor for list of natural/physical science courses in anthropology, geography, and psychology that do not apply as social science.

### Language Requirement

The University of Nebraska–Lincoln and the College of Arts and Sciences place great value on academic exposure and proficiency in a second language. The University of Nebraska–Lincoln entrance requirement of two years of the same foreign language or the College’s language distribution requirement (CDR: Language) will rarely be waived and only with relevant documentation. See the main College of Arts and Sciences page for more details.

### Experiential Learning Requirement

All undergraduates in the College of Arts and Sciences must complete an Experiential Learning (EL) designated course. This may include 0-credit courses designed to document co-curricular activities recognized as Experiential Learning.

## Scientific Base - BS Only

The bachelor of science degree requires students to complete 60 hours in mathematical, physical, and natural sciences. Approved courses for scientific-based credit come from the following College of Arts and Sciences disciplines: actuarial science, anthropology (selected courses), astronomy, biochemistry (excluding BIOC 101), biological sciences (excluding BIOS 100 or BIOS 203), chemistry (excluding CHEM 101), geography (selected courses), geology, life sciences, mathematics (excluding courses below MATH 104), meteorology, microbiology (excluding MBIO 101), and physics (excluding PHYS 201.)

See your Degree Audit or your assigned academic advisor for a complete list, including individual classes that fall outside of the disciplines listed above. Up to 12 hours of scientific and technical courses offered by other colleges may be accepted toward this requirement with approval of the College of Arts and Sciences. See your assigned academic advisor to start the approval process.

## Minimum Hours Required for Graduation

A minimum of 120 semester hours of credit is required for graduation from the College of Arts and Sciences. A cumulative grade point average of at least 2.0 is required.

## Grade Rules

### Restrictions on C- and D Grades

The College will accept no more than 15 semester hours of C- and D grades from other domestic institutions except for UNO and UNK. All courses taken at UNO and UNK impact the UNL transcript. No transfer of C- and D grades can be applied toward requirements in a major or a minor. No University of Nebraska–Lincoln C- and D grades can be applied toward requirements in a major or a minor. International coursework (including education abroad) with a final grade equivalent to a C- or lower will not be validated by the College of Arts and Sciences departments to be degree applicable.

### Pass/No Pass Privilege

The College of Arts and Sciences adheres to the University regulations for the Pass/No Pass (P/N) privilege with the following additional regulations:

- Pass/No Pass hours can count toward fulfillment of University ACE requirements and college distribution requirements up to the 24-hour maximum.
- Most arts and sciences departments and programs do not allow courses graded Pass/No Pass to apply to the major or minor. Students should refer to the department's or program's section of the catalog for clarification. By college rule, departments can allow up to 6 hours of Pass/No Pass in the major or minor.
- Departments may specify that certain courses of theirs can be taken only on a P/N basis.
- The college will permit no more than a total of 24 semester hours of P/N grades to be applied toward degree requirements. This total includes all Pass grades earned at the University of Nebraska–Lincoln and other U.S. schools. **NOTE:** This 24-hour limit is more restrictive than the University regulation.

### Grading Appeals

A student who feels that he/she has been unfairly graded must ordinarily take the following sequential steps in a timely manner, usually by initiating the appeal in the semester following the awarding of the grade:

1. Talk with the instructor concerned. Most problems are resolved at this point.
2. Talk to the instructor's department chairperson.
3. Take the case to the Grading Appeal Committee of the department concerned. The Committee should be contacted through the department chairperson.
4. Take the case to the College Grading Appeals Committee by contacting the Dean's Office, 1223 Oldfather Hall.

## Course Level Requirements

### Courses Numbered at the 300 or 400 Level

Thirty (30) of the 120 semester hours of credit must be in courses numbered at the 300 or 400 level. Of those 30 hours, 15 hours (1/2) must be completed in residence at the University of Nebraska–Lincoln.

### Residency Requirement

Students must complete at least 30 of the 120 total hours for their degree at the University of Nebraska–Lincoln. Students must complete at least 1/2 of their major coursework, including 6 hours at the 300 or 400 level in their major and 15 of the 30 hours required at the 300 or 400 level, in residence. Credit earned during education abroad may be used toward the residency requirement only if students register through the University of Nebraska–Lincoln.

## Catalog to Use

Students must fulfill the requirements stated in the catalog for the academic year in which they are first admitted to and enrolled as a degree-seeking student at the University of Nebraska–Lincoln. In consultation with advisors, a student may choose to follow a subsequent catalog for any academic year in which they are admitted to and enrolled as a degree-seeking student at the University of Nebraska–Lincoln in the College of Arts and Sciences. Students must complete all degree requirements from a single catalog year. Beginning in 1990-1991, the catalog which a student follows for degree requirements may not be more than 10 years old at the time of graduation.

**Transfer Students:** Students who have transferred from a community college may be eligible to fulfill the requirements as stated in the catalog for an academic year in which they were enrolled at the community college prior to attending the University of Nebraska-Lincoln. This decision should be made in consultation with academic advisors, provided the student a) was enrolled in a community college during the catalog year they are utilizing, b) maintained continuous enrollment at the previous institution for 1 academic year or more, and c) continued enrollment at the University of Nebraska-Lincoln within 1 calendar year from their last term at the previous institution. Students must complete all degree requirements from a single catalog year and within the time frame allowable for that catalog year.

## Requirements for Minor Offered by Department

Eighteen (18) hours as follows:

### Required Courses

AERO 331	Leading People and Effective Communication I	3
AERO 332	Leading People and Effective Communication II	3

AERO 441	National Security Leadership Responsibilities and Commissioning Preparation I	3
AERO 442	National Security Leadership Responsibilities and Commissioning Preparation II	3
Credit Hours Subtotal:		12
<b>Additional Courses</b>		
Select one of the following:		3
MNGT 360	Managing Behavior in Organizations	
MNGT 361	Human Resource Management	
MNGT 411	Philanthropy and Leadership	
MNGT 414	International Management	
MNGT 464	Talent Acquisition and Staffing	
MNGT 466 / ECON 485	The Regulatory Environment for Employment and Labor	
Select one of the following:		3
HIST 303	United States Military History, 1607-1917	
HIST 304	United States Military History Since 1917	
GEOG 272	Geography of World Regions	
POLS 160 / GLST 160	International Relations	
POLS 260	Problems in International Relations	
POLS 363	United States Foreign Policy	
Credit Hours Subtotal:		6
<b>Total Credit Hours</b>		<b>18</b>

## Grade Rules

### C- and D Grades

A grade of C or above is required for all courses in the minor.

### Pass/No Pass

No course taken Pass/No Pass will be counted toward the minor.

### AERO 185 Heritage and Values I

**Prerequisites:** Must enroll in both AERO 185 (lecture) and AERO 185L (lab)

**Description:** Officership, communication skills, opportunities, and benefits in today's US Air Force. A weekly one and one-half hour Leadership Lab consists of Air Force customs and courtesies, Air Force environment, drill and ceremonies.

**Credit Hours:** 1

**Max credits per semester:** 1

**Max credits per degree:** 1

**Grading Option:** Graded

**Prerequisite for:** AERO 285; AERO 286

**Groups:** General Military Course

### AERO 185L Leadership Laboratory

**Prerequisites:** Must enroll in both AERO 185 (lecture) and AERO 185L (lab)

**Notes:** Successful completion of this course is required for commissioning.

**Description:** Increasing students' knowledge of Air Force uniform wear, customs, and active duty opportunities.

**Credit Hours:** 0

**Max credits per semester:**

**Max credits per degree:**

**Grading Option:** Pass No Pass

**Groups:** General Military Course

### AERO 186 Heritage and Values II

**Prerequisites:** Must enroll in both AERO 186 (lecture) and AERO 186L (lab)

**Description:** Communication and leadership skills, US Military history, and the organizational structure of today's US Air Force. A weekly one and one-half hour Leadership Lab consists of Air Force customs and courtesies, Air Force environment, drill and ceremonies.

**Credit Hours:** 1

**Max credits per semester:** 1

**Max credits per degree:** 1

**Grading Option:** Graded

**Prerequisite for:** AERO 285; AERO 286

**Groups:** General Military Course

### AERO 186L Leadership Laboratory

**Prerequisites:** Must also enroll in both AERO 186 (lecture) and AERO 186L (lab)

**Description:** Increasing students' knowledge of Air Force uniform wear, customs, and active duty opportunities.

**Credit Hours:** 0

**Max credits per semester:**

**Max credits per degree:**

**Grading Option:** Pass No Pass

**Groups:** General Military Course

### AERO 285 Team and Leadership Fundamentals I

**Prerequisites:** AERO 185 and AERO 186

**Description:** Establishes the foundation for both leadership and team building skills to include listening, followership, and problem solving efficiently. Practice and demonstrate basic verbal and written communication skills along with self-reflection and self assessments.

**Credit Hours:** 2

**Max credits per semester:** 2

**Max credits per degree:** 2

**Grading Option:** Graded with Option

**Prerequisite for:** AERO 286

**Groups:** General Military Course

### AERO 285L Leadership Laboratory I

**Prerequisites:** Must enroll in AERO 285

**Description:** Introduction to cadet leadership training. Practical experience in leadership roles.

**Credit Hours:** 0

**Max credits per semester:**

**Max credits per degree:**

**Grading Option:** Pass No Pass

**Groups:** General Military Course

**AERO 286 Team and Leadership Fundamentals II****Prerequisites:** AERO 185, AERO 186, and AERO 285**Description:** Builds on the topics established in AERO 285, with a focus on teams, conflict management, stress management and resiliency, and further development of verbal and written communication skills. Continued self-reflection will be required in order to increase both followership and leadership skills.**Credit Hours:** 2**Max credits per semester:** 2**Max credits per degree:** 2**Grading Option:** Graded with Option**Groups:** General Military Course**AERO 286L Leadership Laboratory II****Prerequisites:** Must also enroll in AERO 286**Description:** Introduction to cadet leadership training. Practical experience in leadership roles.**Credit Hours:** 0**Max credits per semester:****Max credits per degree:****Grading Option:** Pass No Pass**Groups:** General Military Course**AERO 331 Leading People and Effective Communication I****Prerequisites:** Permission of professor of aerospace studies.**Description:** Communications skills, leadership, quality initiatives, and human relations. Requires cadet research and participation in the instructional process.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Prerequisite for:** AERO 441; AERO 442**Groups:** Professional Officer Course**AERO 331L Leadership Laboratory****Prerequisites:** Must enroll in both AERO 331 (lecture) and AERO 331L (lab)**Description:** Practical application of the principles of leadership in the operation and administration of the cadet wing.**Credit Hours:** 0**Max credits per semester:****Max credits per degree:****Grading Option:** Pass No Pass**Groups:** Professional Officer Course**AERO 332 Leading People and Effective Communication II****Prerequisites:** AERO 331, or permission of professor of aerospace studies.**Description:** Principles of leadership, professionalism, ethics, communications skills, and problem solving, including quality leadership applications.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Prerequisite for:** AERO 441; AERO 442**Groups:** Professional Officer Course**AERO 332L Leadership Laboratory****Prerequisites:** Must enroll in both AERO 332 (lecture) and AERO 332L (lab)**Description:** Practical application of the principles of leadership in the operation and administration of the cadet wing.**Credit Hours:** 0**Max credits per semester:****Max credits per degree:****Grading Option:** Pass No Pass**Groups:** Professional Officer Course**AERO 441 National Security Leadership Responsibilities and Commissioning Preparation I****Prerequisites:** AERO 331, 332, or permission of professor of aerospace studies.**Description:** Environment in which defense policy is formulated. Requisites for maintaining adequate national security forces; political, economic, and social constraints of the national defense structure; and the overall defense policymaking process.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Prerequisite for:** AERO 442**Groups:** Professional Officer Course**AERO 441L Leadership Laboratory****Description:** Practical application of the principles of leadership and experience in the operation and administration of the cadet wing.**Credit Hours:** 0**Max credits per semester:****Max credits per degree:****Grading Option:** Pass No Pass**Groups:** Professional Officer Course**AERO 442 National Security Leadership Responsibilities and Commissioning Preparation II****Prerequisites:** AERO 331, AERO 332, and AERO 441 or permission of professor of aerospace studies.**Description:** The armed forces as an integral element of society; the broad range of civil-military relations. The role of the professional officer in a democratic society, the socialization process within the armed services, and the military justice system.**Credit Hours:** 3**Max credits per semester:** 3**Max credits per degree:** 3**Grading Option:** Graded**Groups:** Professional Officer Course**AERO 442L Leadership Laboratory****Prerequisites:** Must enroll in both AERO 442 (lecture) and AERO 442L (lab)**Description:** Practical application of the principles of leadership and experience in the operation and administration of the cadet wing.**Credit Hours:** 0**Max credits per semester:****Max credits per degree:****Grading Option:** Pass No Pass**Groups:** Professional Officer Course