

THIS IS  
UND  
AEROSPACE





# ABOUT UND AEROSPACE

The second-largest degree-granting college at UND, the John D. Odegard School of Aerospace Sciences operates one of the largest fleets of civilian aircraft in North America.

UND Aerospace is a world-renowned center for aerospace learning, nationally acclaimed for our achievements in collegiate aviation education, atmospheric research, space studies, and earth system science and policy research. The John D. Odegard School of Aerospace Sciences is setting the pace for the future of flight.

## A TRADITION OF EXCELLENCE

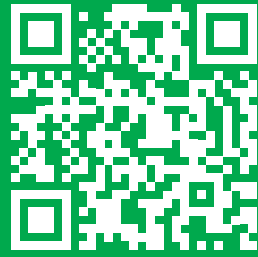
It all began in 1968 with two donated planes, twelve students, and the formation of UND's Department of Aviation. In 1982, the Center for Aerospace

Sciences (later named The John D. Odegard School of Aerospace Sciences) was established to handle the tremendous growth of UND's atmospheric research and aviation education programs. The John D. Odegard School of Aerospace Sciences is now the second-largest of UND's degree-granting colleges, and operates one of the largest fleets of civilian flight training in North America.

**\$5M+**  
in research

**2,200+**  
students from around the world

**700+**  
faculty and staff members



Learn more about  
Atmospheric Sciences  
[aero.UND.edu/atmos](http://aero.UND.edu/atmos)

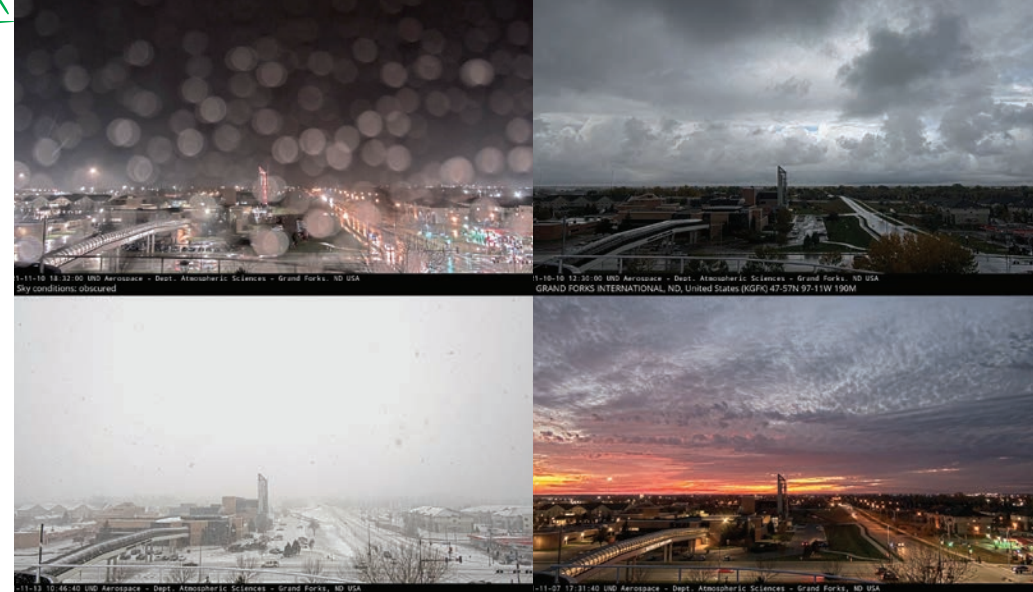
# ATMOSPHERIC SCIENCES

Our graduates are helping society face the challenges of a complex and changing environment.

Explore career options and prepare for your future career in the atmospheric sciences.

## What sets UND's Atmospheric Sciences Department apart?

- Nearly all teaching faculty conduct funded research, which is incorporated into courses
- Undergraduate curriculum emphasizes communication and computing skills needed in the job market
- Real-world learning opportunities, including daily weather broadcast, NWS Student Volunteer Program, research assistantships, and other internships
- Close proximity to the National Weather Service and other private agencies



## ← ENJOY THE VIEW!

Check the weather year-round with the Atmospheric Sciences SkyCam!

Cameras mounted on top of Clifford Hall (facing east and west) stream 24/7 on Youtube.



Scan to watch!

## Our Programs

### ATMOSPHERIC SCIENCES (MINOR)

Minor | 2 years | On-Campus

Explore the wonders of our atmosphere and how it impacts our society and physical environment. The atmosphere and its processes impact our world every day, from the use of resources to environmental impacts, water management, agriculture, and energy conservation. This minor builds your knowledge about these processes, forecasting, and how the atmosphere impacts policies, practices, and safety measures.

### BACHELOR OF SCIENCE (B.S.)

Major | 4 years | On-Campus

The atmosphere and its processes impact all human life on Earth. The next generation of atmospheric scientists will expand our understanding of meteorological phenomena and provide advanced lead time of hazardous weather. This UND program prepares you for a career in this evolving field.

### COMBINED ATMOSPHERIC SCIENCE DEGREE (B.S./M.S.)

Combined Major & Master's | 5 years | On-Campus

If you're looking for the straightest line from education to professional, a UND Master of Science (M.S.) degree is right for you. And, now with the option of a combined degree program, you can complete your higher

education in an efficient way. With this graduate program, you'll gain the hands-on and practical expertise that today's employers are looking for.

### MASTER OF SCIENCE (M.S.)

Master's Degree | 2 years | On-Campus

Today's tumultuous, often life-threatening atmospheric changes requires a high level of expertise to help society navigate and cope in constructive ways. This program offers the experience to fill critical roles in research and helping society adapt. With this knowledge, you can help increase our understanding of the atmosphere, protect health and property in communities, and create opportunities in private industry.

### ATMOSPHERIC SCIENCES PH.D.

Doctoral Degree | 4 years | On-Campus

Advance your education and talent to the highest level. Our comprehensive curriculum will prepare you for a leadership role in research, private industry or teaching in a university setting.



Learn more about  
Aviation

[aero.UND.edu/aviation](http://aero.UND.edu/aviation)



# AVIATION

Gain the best education and training possible at the world's most comprehensive aerospace university.

Highly-respected by the aviation industry, the John D. Odegard School of Aerospace Sciences offers a liberal arts core curriculum combined with a professional aviation education in a variety of specialties.

### What sets UND's Aviation Department apart?

- World-renowned academic excellence
- Largest collegiate training fleet in the world
- State-of-the-art facilities
- 7 aviation degrees
- Liberal arts core curriculum

### Mission

Working together, we will deliver the highest quality education, research, and service in aviation and related disciplines to our students, our college, and the worldwide aerospace community.

### Minors

#### AVIATION MANAGEMENT MINOR

Minor | 2 years | On-Campus

With this minor in Aviation Management at UND, you'll gain the policy and business skills needed to manage airlines, airports and general aviation.

#### PROFESSIONAL FLIGHT MINOR

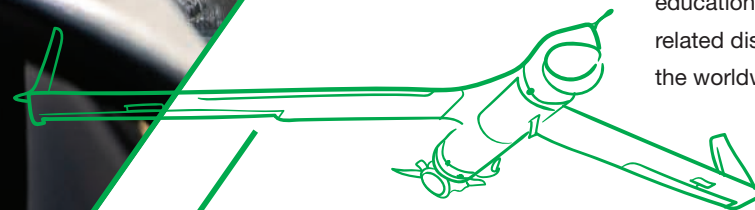
Minor | 2-3 years | On-Campus

Bring your career into greater focus with a commercial pilot certification that allows the option for flight training in fixed wing aircraft or helicopters. Gain the fundamental knowledge and essential experience to launch your career in a variety of professional opportunities.

#### UNMANNED AIRCRAFT SYSTEMS MINOR

Minor | 1-2 years | On-Campus

Unmanned Aircraft Systems are rapidly changing everyday life. With this minor program, you'll learn to fly drones and all about the unmanned industry from the first school to offer a UAS degree, which can be applied to your major.



## AVIATION DEGREE PROGRAMS CONTINUED



### Undergraduate Programs

#### AIR TRAFFIC MANAGEMENT (B.S.)

Major | 4 years | On-Campus

Earn a B.S. in Aeronautics with a major in Air Traffic Management and benefit from the most technologically advanced control tower and radar simulators. This degree is designed to place students into ATM or related careers.

#### AIRPORT MANAGEMENT (B.B.A.)

Major | 4 years | On-Campus

Pursue a rewarding career in management combined with the exciting world of aviation, with a degree in Airport Management. You'll benefit from a comprehensive curriculum that focuses on administrative areas related to airport operations, planning and consulting.

#### AVIATION MANAGEMENT (B.B.A.)

Major | 4 years | On-Campus

There's more to running a successful flight operation than just flying. With an aviation management degree, you'll gain the technical and business skills needed to manage airlines, fixed base operators (FBOs), specialized aviation service organizations (SASOs), and more. You'll also earn an FAA flight certification.

#### AVIATION SAFETY & OPERATIONS (B.S.)

Major | 4 years | On-Campus or Online

A demanding but rewarding career in aviation safety requires broad-based aviation knowledge and specialized technical and procedural knowledge.

UND offers a comprehensive curriculum to prepare you to be part of the next generation of aviation safety experts.

#### AVIATION STUDIES (B.S.)

Major | 4 years | Online

Earn your bachelor's degree in Aviation Studies, which provides an opportunity to bring greater focus to your career options. Best of all, you'll graduate from one of the strongest collegiate aviation programs in the country.

#### COMMERCIAL AVIATION (B.S.)

Major | 4-5 years | On-Campus

Broaden your career with a commercial aviation degree that allows the option for flight training in fixed-wing aircraft or helicopters. Gain the fundamental knowledge and essential experience to launch your career in a variety of professional opportunities.

#### UNMANNED AIRCRAFT SYSTEMS OPERATIONS (B.S.)

Major | 4 years | On-Campus

Be among the first generation of unmanned aircraft specialists with training from the university that started it all. This degree prepares students for a career in the rapidly growing field of unmanned aircraft systems (UAS). This sector of the aviation industry utilizes both large and small aircraft flown remotely for military, law enforcement, and commercial uses.



### Graduate Programs

#### MASTERS IN AVIATION (M.S.)

Master's Degree | 2-3 years | Online

This UND graduate program offers you the choice of specializing in four key areas: safety, unmanned aircraft systems, management and human factors. Best of all, this online program allows you maximum flexibility in achieving your M.S. in Aviation.

#### AEROSPACE SCIENCES PH.D.

Doctoral Degree | 4-7 years | On-Campus or Online

Successful aerospace professionals possess broad backgrounds linking science, engineering, policy, business and law. Get your doctoral education from a world-renowned center for aerospace learning, the John D. Odegard School of Aerospace Sciences at UND.





Learn more about ESSP  
aero.UND.edu/essp



# EARTH SYSTEM SCIENCE & POLICY (ESSP)

Address today's environmental and sustainability challenges to define and shape tomorrow's positive and sustainable changes.

Combine social and natural science in an interdisciplinary education to lead the way in solving complex human-driven impacts affecting a sustainable Earth system and a prosperous economy.

## What sets UND's Earth System Science & Policy Department apart?

- An original approach that bridges theory with practice, global and local perspectives, and scientific and social disciplines
- A student-structured curriculum, a multi-disciplinary teaching approach, and experiential learning environments
- Students are equipped with skills and knowledge in natural science, environmental policy, and economics to solve real-world issues through a holistic approach
- Master skills needed in the job market such as geospatial tools, computing skills, natural economics, environmental science, and policy tools



## Our Programs

### SUSTAINABILITY STUDIES MINOR

Minor | 2 years | On-Campus

Develop the skills and knowledge for an interdisciplinary understanding of sustainability goals and the science and strategies needed to achieve these goals in modern society. This UND minor offers opportunities to creatively address sustainability issues, as local and global citizens, through a more systemic approach to solve real-world problems.

### MASTER'S OF ENVIRONMENTAL MANAGEMENT (M.E.M.)

Master's Degree | 2 years | On-Campus or Online

This master's of environmental management program is geared toward those with a strong background in environmental and sustainability science, and environmental policy by providing advanced quantitative

and analytical knowledge, integrated geospatial technology skills, and a breath of professional component that includes business, economics and communication.

### MASTER OF SCIENCE (M.S.)

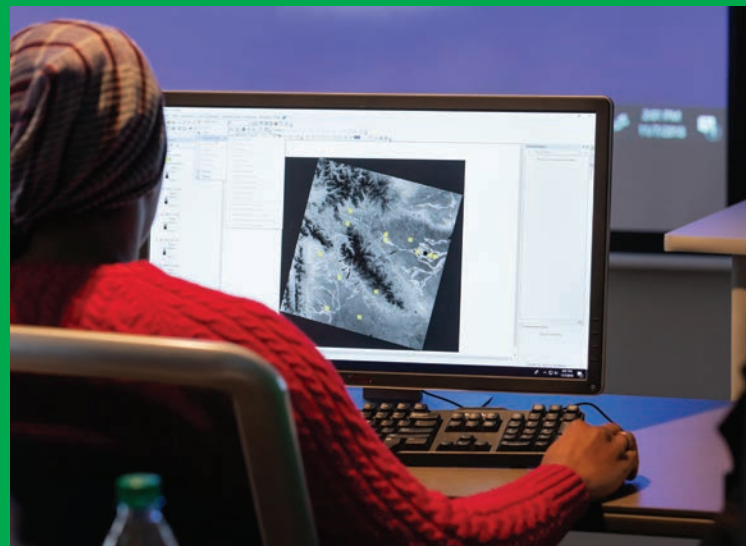
Master's Degree | 2-3 years | On-Campus

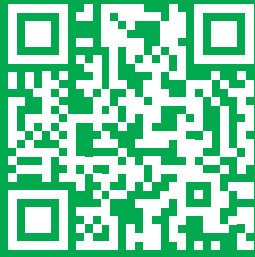
Human activities are generating changes to Earth's land surface, oceans, coasts and atmosphere, biological diversity, water cycle, and biogeochemical cycles. These changes demand graduate-level research and technical expertise. This master's is for those interested in the science of the Earth's systems and how that science can be integrated into sustainability.

### EARTH SCIENCE PH.D.

Doctoral Degree | 4-5 years | On-Campus

Learn to generate rigorous scientific inquiry that bridges the gaps identified in scientific knowledge. UND's Earth System Science and Policy Ph.D. combines theory with practice; global and local perspectives; and scientific and social disciplines.





Learn more about  
Space Studies  
[aero.UND.edu/space](http://aero.UND.edu/space)



## NORTH DAKOTA SPACE GRANT CONSORTIUM

Space Grant is a national network of colleges and universities working to expand opportunities for Americans to understand and participate in NASA's aeronautics and space projects. The North Dakota Space Grant Consortium, headquartered at UND, engages students and educators across North Dakota at all 18 affiliate institutions. All UND students who meet the eligibility requirements may apply for NDSGC opportunities. Opportunities include:

- NASA Internships
- Scholarships
- Mini-Grants
- Research Fellowships
- Hands-on STEM
- Travel Funding



Learn More!  
[ndspacegrant.UND.edu](http://ndspacegrant.UND.edu)

# SPACE STUDIES

First and global leader in  
interdisciplinary graduate studies

### What sets UND's Space Studies Department apart?

- Interdisciplinary and multidisciplinary space program, and oldest and largest in the nation
- Distance education opportunities for current space professionals and educators
- On-site human space flight analog
- Access to world-class researchers at a public university price
- Networking opportunities across a wide range of current space professionals

### History

In the early 1980s, John D. Odegard invited Buzz Aldrin, the second man to walk on the Moon, to come to UND to help organize a space education program within the college.

Today, the Department of Space Studies has approximately 25 M.S. students on campus and more than 100 students in the distance program.

### Our Programs

#### SPACE STUDIES MINOR

Minor | 3 years | On-Campus

Reach new horizons by learning about the complexities of research, development and operations of space-related disciplines. With a minor in Space Studies from UND, you'll gain an understanding of the political, legal and scientific and engineering aspects involved with space ventures.

#### MASTER OF SCIENCE (M.S.)

Master's Degree | 2-4 years | On-Campus or Online

UND has the first space studies program of its kind in the world! Our master's in Space Studies is designed for those seeking to enter the space field or are an aerospace professional who wishes to expand your knowledge.

#### AEROSPACE SCIENCES PH.D.

Doctoral Degree | 4-7 years | On-Campus or Online

Successful aerospace professionals possess broad backgrounds linking science, engineering, policy, business and law. Get your doctoral education from a world-renowned center for aerospace learning, the John D. Odegard School of Aerospace Sciences at UND.

# FLIGHT OPERATIONS

Train in our modern fleet of airplanes, helicopters, and simulators equipped with the latest in avionics technology.

In order to successfully train over 1,700 students on the flight line each term, we take great pride in our numerous aviation safety initiatives that includes an FAA approved Safety Management System (SMS), an active flight data monitoring program and voluntary safety reporting system.

Flight Operations provides exceptional in-house maintenance on our aircraft by our team that has been awarded the FAA Diamond Award of Excellence for the past 29 years.

## BY THE NUMBERS

**140+**

aircraft in fleet

**420+**

flight instructors and staff

**1500+**

certificates and ratings issued annually

**104,222**

total launches dispatched annually

**125,000+**

annual flight hours



# FLIGHT PHYSIOLOGY

Experience the physiological effects of high-altitude flight in a hypobaric altitude chamber.

**Physiology training at UND Aerospace is recognized as some of the best of its kind in the world.**

For over 30 years, UND Aerospace has conducted highly-specialized, research-based physiology courses for over 140 corporate and commercial organizations.

Our dedicated team of highly experienced aerospace physiologists utilize a military-grade altitude chamber and state-of-the-art spatial disorientation, vision, and flight-deck smoke training devices.

## BY THE NUMBERS

**10,000+**

collegiate, corporate, and commercial pilots trained

**3,000+**

altitude chamber flights performed

**100+**

combined years of instructor experience

Learn more about Flight Physiology Training offered at UND Aerospace



[aero.UND.edu/aviation/we-offer/physiology](https://aero.UND.edu/aviation/we-offer/physiology)







Safety Lab



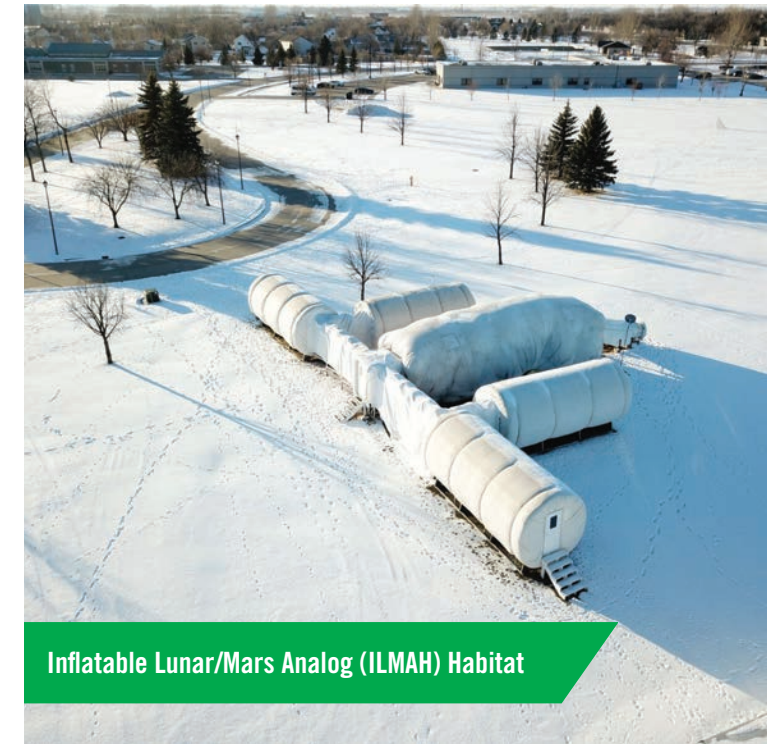
Virtual Reality Lab



Weather Studio



Skyway



Inflatable Lunar/Mars Analog (ILMAH) Habitat

# CAMPUS LIFESTYLE

There's something for everyone at the University of North Dakota.



Chester Fritz Library



Wilkerson Commons



Wellness Center



Memorial Union

248

student clubs and organizations

21

fraternities and sororities

10

colleges

# SCHEDULE YOUR VISIT TODAY!



[UND.edu/admissions/visit](https://UND.edu/admissions/visit)



## GET SOCIAL WITH US!

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