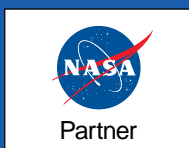


# NORTH DAKOTA SPACE GRANT CONSORTIUM

[NDSpaceGrant.UND.edu](http://NDSpaceGrant.UND.edu)





# ABOUT THE NDSGC

The North Dakota Space Grant Consortium (NDSGC) provides and supports hands-on STEM and NASA opportunities for students, faculty, staff, and educators at public institutions across North Dakota.

All recipients of NDSGC funding must be U.S. Citizens with a minimum GPA of 3.0. Funding opportunities are available to both on-campus and online students enrolled in an NDSGC affiliate institution. Funded faculty, staff, and students are expected to complete final reporting requirements and present at the Annual Affiliates Meeting to take place at a different campus across ND each year.

#NASAinND



@NDSGC



@NDSPACEGRANT



@NDSPACEGRANT



@NORTHDAKOTASPACEGRANT



@NDSPACEGRANT



NORTH DAKOTA SPACE GRANT



NORTH DAKOTA SPACE GRANT CONSORTIUM



NORTH DAKOTA SPACE GRANT CONSORTIUM

# CONTACT Information

## MAILING ADDRESS

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University of North Dakota  
Dean's Office Aerospace  
Clifford 270  
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Photo by Vincent Ledvina

# APPLICATION Deadlines

Applications open one month prior to their deadlines. Please contact the NDSGC Deputy Director or Coordinator for access to the Bridge Fellowship application.

VIEW THE APPLICATION  
DEADLINE CALENDAR  
ONLINE

<https://ndspacegrant.und.edu/>



Application	Deadline
ASCEND Grant	November 15
Bridge Fellowship Program	1st of each month
Internal Deadline for Summer NASA Internships	February 1st
NDVS/SB Scholarship	February 15th
NDSU Lillian Goettler Scholarship	February 15th
UND Pearl I. Young Scholarship	February 15th
STEM Ambassador Program (summer semester start)	April 15th
Summer Student Research Fellowships	April 15th
Summer Faculty Fellowships	April 15th
Summer Affiliate Mini-Grants	April 15th
Summer Educator Mini-Grants	April 15th
Summer College Student Research Mini-Grants	April 15th

Application	Deadline
STEM Ambassador Program (fall semester start)	July 1st
Fall Student Research Fellowships	August 15th
Fall Affiliate Mini-Grants	August 15th
Fall Educator Mini-Grants	September 1st
Fall College Student Research Mini-Grants	August 15th
Student Competition Teams	November 15th
Spring Affiliate Mini-Grants	December 1st
Spring Educator Mini-Grants	December 1st
Spring Student Research Fellowships	December 1st
Spring College Student Research Mini-Grants	December 1st

Please refer to the application deadline calendar or email the NDSGC to confirm application deadlines.

## NDSGC AWARDEE GUIDANCE



This document is designed to assist NDSGC applicants or awardees with making purchases on goods/services and traveling to complete their award. All items are subject to change.

<https://tinyurl.com/awardeeguide>

## ELIGIBILITY RULES

- 1. Must be a U.S. Citizen\***
- 2. Must have a minimum GPA of 3.0**
- 3. Must be enrolled at a NDSGC affiliate college or university.** See the back of this brochure for a list of affiliated universities.

\*International students are eligible to participate in competition teams.



**ANNIE MILES (UND)**  
Summer 2018 NASA Intern

# NASA Internships

**Who:** NDSGC affiliate college students of all majors

**Affiliate Eligibility:** all affiliate schools

**Summer Deadline:** February 1st

**Fall Deadline:** June 1st

**Spring Deadline:** October 1st

**Undergraduate Student Funding (40 hrs/wk):**

Fall and Spring — \$11,680

Summer — \$7,300

**Graduate Student Funding (40 hrs/wk):**

Fall and Spring — \$14,400

Summer — \$9,000

Summer sessions are 10 weeks and Fall/Spring sessions are 16 weeks. Part-time positions may be available. Students are limited to one NASA internship supported by the NDSGC per degree program.

Contact the NDSGC if you are applying for a NASA internship. Once you have applied on the NASA website, submit position selections to the NDSGC using the QR code below.

**SUBMIT YOUR NASA APPLICATION**



<https://intern.nasa.gov/>

**SUBMIT YOUR ND SPACE GRANT APPLICATION**



<https://ndspacegrant.und.edu/college-students/internships-and-fellowships/nasa-internships.html>





**GEENA BROADWATER (MSU)**

Summer 2021 Fellow

# RESEARCH Fellowships

**Who:** NDSGC affiliate college students in STEM fields

**Affiliate Eligibility:** all affiliate schools

**Fall Deadline:** August 15th

**Spring Deadline:** December 1st

**Summer Deadline:** April 15th

**Undergraduate Students:**

Fall and Spring — \$3,600

Summer — \$2,250

**Graduate Students:**

Fall and Spring — \$4,500

Summer — \$2,850

Research fellowships are available to students completing NASA-relevant research in a STEM field under the guidance of a faculty mentor. Students receiving  $\frac{1}{2}$  time GA appointments are not eligible for fellowships. Students receiving  $\frac{1}{4}$  time GA funding are eligible for partial fellowships. Students are expected to spend ~15 hours/week on their research projects. Students are limited to two research fellowships supported by the NDSGC per degree program.

**SUBMIT YOUR  
APPLICATION**



<https://ndspacegrant.und.edu/college-students/internships-and-fellowships/research-fellowships.html>

# FELLOWSHIP Bridge Program

# TRAVEL Grants

**Who:** NDSGC affiliate college students in STEM fields

**Affiliate Eligibility:** all affiliate schools (students transferring from a 2 year to 4 year degree are highly encouraged to apply)

**Application Deadline:** rolling applications

**Undergraduate Students:** \$225 / 15 hours

**Graduate Students:** \$281.25 / 15 hours

Students who have earned an undergraduate degree, and are starting a new program at an NDSGC-affiliate program can apply for funding to complete entry-level research projects in Science, Technology, Engineering, or Mathematics (STEM) fields. This program is open to students who are enrolling in a higher degree program at the same, or a different, NDSGC affiliate institution; this transition could be from A.S. to B.S., B.S. to M.S., B.S. to Ph.D., or M.S. to Ph.D. Residency on campus to complete the research project is encouraged, but not required as virtual appointments are an option.

Students interested in applying are strongly encouraged to contact the NDSGC to help with mentor pairings. Students with little or no research experience are encouraged to apply.

**SUBMIT YOUR APPLICATION**



<https://ndspacegrant.und.edu/college-students/internships-and-fellowships/bridge-program.html>



**ELIZABETH DECKERT (LRSC TO UND)**

Fall 2021 Bridge Fellow

*Photo by Mike Hess/UND Today*



**JOE ALLEN (UND)**

Fall 2019 Research Fellow

**Who:** NDSGC affiliate college students in STEM fields

**Affiliate Eligibility:** all affiliate schools

**Application Deadline:** rolling applications

**Funding:** up to \$1,000

Students who will be presenting their STEM or NASA-relevant research at a conference or attending a professional development workshop are eligible to apply for travel assistance from the NDSGC to cover associated costs (e.g. airfare, ground transportation, per diem, hotel, registration, etc.). International travel is not supported. Students are eligible to receive one travel grant per degree program.

Travel grant applications are due at least six weeks prior to the conference or workshop that is being attended. If a travel grant is awarded, travel and funding arrangements must be made at least two weeks prior to the conference or workshop being attended.

Students are allowed to submit one travel grant application per semester until they have a meritorious submission.

Each travel grant is accessed individually.

**SUBMIT YOUR APPLICATION**



<https://ndspacegrant.und.edu/college-students/grants/travel.html>

# UNDERGRADUATE Scholarships



<https://ndspacegrant.und.edu/college-students/scholarships/undergraduate.html>

**Who:** NDSGC affiliate college students in STEM fields  
**Affiliate Eligibility:** all affiliate schools **excluding NDSU and UND**  
**Application Deadline:** varies by campus  
**Funding:** up to \$2,500 per scholarship

Students must work with their campus representatives in the Office of Financial Aid and/or STEM faculty to apply for NDSGC undergraduate scholarships. These scholarships are offered on an annual basis in the fall or spring semesters. Details vary by campus. Contact the NDSGC to be connected to your campus representative.

# LILLIAN GOETTLER Scholarship



<https://ndspacegrant.und.edu/college-students/scholarships/lillian-goettler.html>

**Who:** NDSU student in STEM field who identifies as female or outside the gender binary  
**Affiliate Eligibility:** **NDSU only**  
**Application Deadline:** February 15th  
**Funding:** \$2,500



This annual award was established to honor the ideals of scholarship as exemplified by Lillian Goettler, a distinguished NDSU professor. She was awarded a doctorate in Mechanical Engineering from the University of Massachusetts Amherst, and came to NDSU in 1978.

Students applying for the Lillian Goettler Scholarship must have a minimum GPA of 3.5.

# AMERICAN INDIAN Scholarships



<https://ndspacegrant.und.edu/college-students/scholarships/american-indian.html>

**Who:** American Indian/Native American students at NDSGC affiliate Tribal colleges  
**Affiliate Eligibility:** all affiliate Tribal schools (see below)  
**Application Deadline:** varies by campus  
**Funding:** \$2,500

Students applying for the American Indian Scholarship must be pursuing a degree in a STEM field, and have plans to continue their education beyond their current degree program.

**NDSGC Tribal Colleges include:** United Tribes Technical College, Sitting Bull Community College, Nueta Hidatsa Sahnish College, Turtle Mountain Community College, and Cankdeska Cikana Community College.

# PEARL I. YOUNG Scholarship



<https://ndspacegrant.und.edu/college-students/scholarships/pearl-i-young.html>

**Who:** UND student in STEM field who identifies as female or outside the gender binary  
**Affiliate Eligibility:** **UND only**  
**Application Deadline:** February 15th  
**Funding:** \$2,500



This annual award was established to honor the ideals of scholarship as exemplified by Pearl I. Young. Raised in North Dakota, Young graduated from UND in 1919 as a Phi Beta Kappa with a triple major in physics, mathematics, and chemistry. Young, a trailblazer in aeronautics, went on to have a career with the NACA, NASA, and academia.

Students applying for the Pearl I. Young Scholarship must have a minimum GPA of 3.5.

# NDVS/SB Scholarship

**Who:** NDSGC affiliate college students that qualify for services from NDVS/SB

**Affiliate Eligibility:** all affiliate schools

**Application Deadline:** February 15th

**Funding:** \$500 to \$2500; determined by need and number of eligible applicants.

The NDSGC, through a partnership with North Dakota Vision Services/School for the Blind (NDVS/SB), awards an annual NDVS/SB & NDSGC Scholarship to STEM students who qualify for services from NDVS/SB. The scholarship was established during the 2020-2021 academic year.



<https://ndspacegrant.und.edu/college-students/scholarships/ndvssb.html>

# STEM Ambassador Program

**Who:** NDSGC affiliate college students of all majors

**Affiliate Eligibility:** all affiliate schools

**Application Deadline:** July 1st

**Funding:** \$17/hr

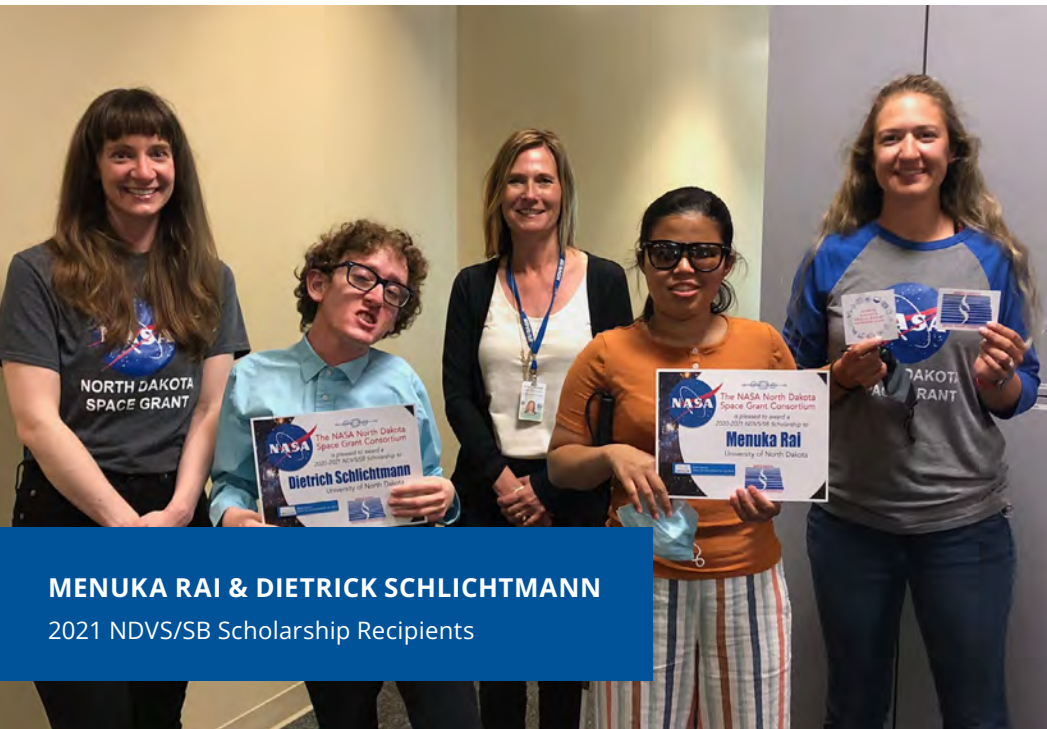
STEM Ambassadorships are open to students who are self-motivated, enjoy interacting with K-12 students, educators, and the general public, and have strong communication skills. Students are paid hourly to conduct STEM and NASA engagement activities (hands-on activities, demonstrations, presentations, and recruitment) throughout the year. This is a flexible position with no minimum hour requirements.

All majors are encouraged to apply. STEM Ambassadors will participate in annual trainings at UND with a hands-on activities focus.

**BECOME A STEM  
AMBASSADOR**



<https://ndspacegrant.und.edu/college-students/stem-ambassadors.html>



**MENUKA RAI & DIETRICK SCHLICHTMANN**  
2021 NDVS/SB Scholarship Recipients





# EDUCATOR PROFESSIONAL Development

**Who:** In-service and pre-service ND educators

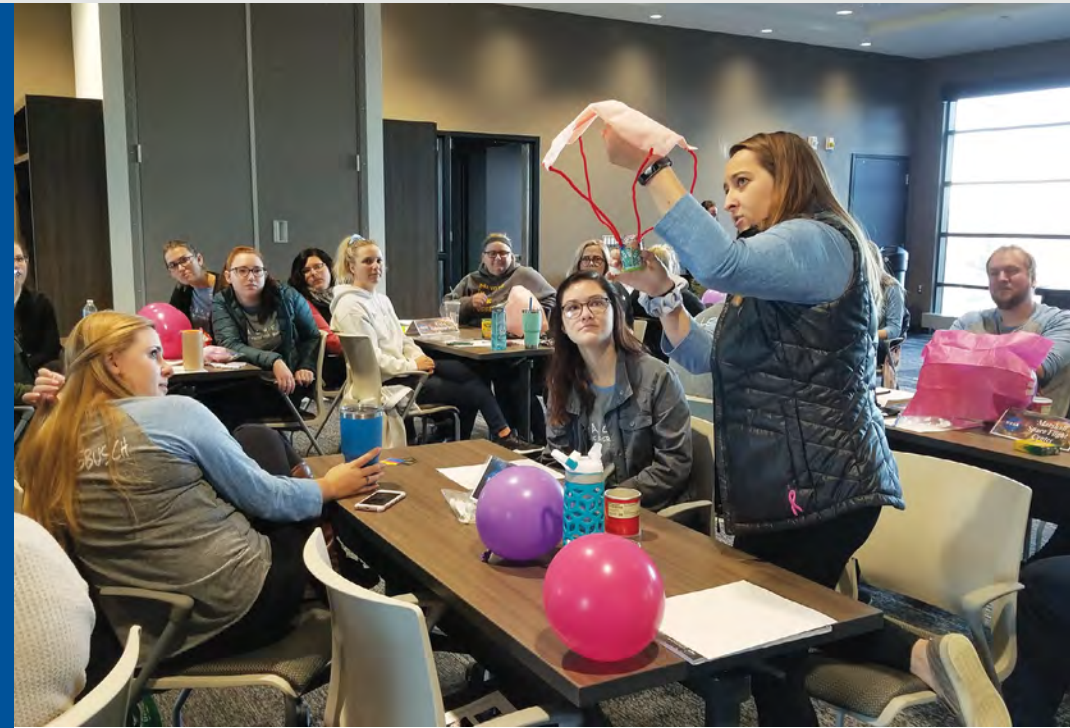
The NDSGC conducts workshops across the state for K-12 teachers, informal educators, and college students majoring in Education fields at NDSGC affiliate institutions. In-state opportunities include hands-on presentations at the ND STEAM Conference, ND Council of Teachers of Mathematics and ND Science Teachers Association Meetings, and other workshops coordinated by ND Regional Education Associations (REAs). The NDSGC conducts a "NASA in the Classroom" 15-hour workshop each year in a rotating location in ND. This workshop is open to all ND educators and participants earn one professional development credit.

ND educators may also request STEM Ambassadors to visit their schools to conduct hands-on NASA and STEM investigations with their students each year.

LEARN MORE



<https://ndspacegrant.und.edu/educators/conferences/index.html>



A number of professional development opportunities are available including:

• **Space Exploration Educators Conference (SEEC)**

SEEC is an annual conference hosted by Space Center Houston for educators from around the world. Attend hands-on sessions led by NASA scientists, industry engineers, and fellow educators. Network with educators, bring back a multitude of cross-curriculum ideas and activities, and earn 24 hours of professional development credit. Applications are due in November for the February Conference.

• **Space Academy for Educators**

"Experience the authenticity of simulated space missions so you can teach with authority and inspiration! Step out of the box and into mission training to learn methods for delivering the excitement of space exploration in your classroom with Space Academy® for Educators." Applications are due in early spring for one of the 5-day sessions that occur from June through August each year.



ELLEN KRUEGER

UND Elementary Education graduate



**JOIN THE ND EDUCATOR EMAIL LISTSERV**

Stay up to date on educator opportunities!

<https://ndspacegrant.submittable.com/submit/191128/ndsgc-electronic-mailing-list>

# ASCEND

AFFILIATE SYNERGISTIC AND COLLABORATIVE ENGAGEMENTS ACROSS ND

Staff/faculty seed grant

**What:** The Affiliate Synergistic and Collaborative Engagements across North Dakota (ASCEND) seed grant is designed to promote, develop, and expand NASA research and projects within North Dakota. These grants, which may be research- or teaching-based, will be defined by the goals found within NASA's Mission Directorates and the NDSGC's proposal.

**Affiliate Eligibility:** All faculty and staff at all affiliate schools and institutions including Gateway to Science and ND Heritage Center

**Application Deadline:** November 15

**Funding:** up to [two] awards of [\$15,000]

APPLY NOW



<https://ndspacegrant.und.edu/affiliate-members/seed-grants.html>

# FACULTY COURSE Development Grants

**Who:** faculty at NDSGC affiliate institutions

**Affiliate Eligibility:** all affiliate schools

**Application Deadline:** April 15th

**Funding:** \$4,500

The NDSGC funds up to 6 faculty course development grants each summer. These grants are designed to assist faculty in creating or revising a college-level course that is in a STEM or STEM Education field and is NASA-relevant. The overall goal of this program is to increase the exposure of college students to NASA and NASA research.

Preference will be given to early career faculty, faculty from 2-year colleges, and faculty who have not received a fellowship the previous summer.

APPLY NOW



<https://ndspacegrant.und.edu/affiliate-members/summer-fellowships.html>



**MANDY GUINN & STUDENTS**

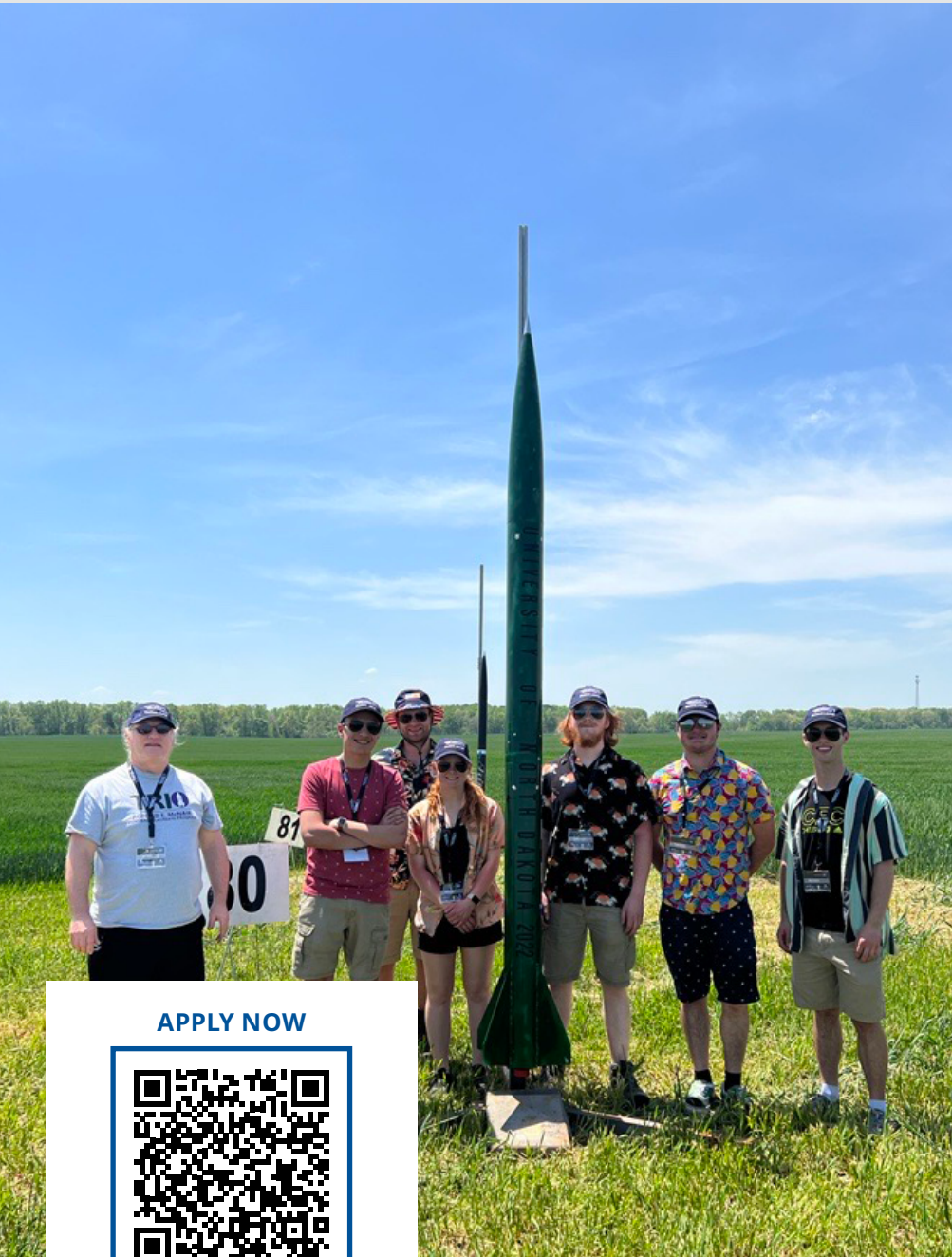
United Tribes Technical College Environmental Science & Research Chair



**THORPE HALLORAN (MiSU)**

2021 Summer Faculty Fellow

# STUDENT Competition Teams



**APPLY NOW**



<https://ndspacegrant.und.edu/college-students/competition-teams/index.html>

**UND ROCKETRY CLUB (UND)**  
2022 Competition Team Awardees



**THUNDER ROBOTICS TEAM (K-12)**  
2022 Competition Team Awardees

**Who:** NDSGC affiliate college students of all majors and ND K-12 student teams

**Affiliate Eligibility:** all affiliate schools and all North Dakota K-12 schools

**Application Deadline:** November 15th

**Funding:** up to \$8,000 per team

First year teams are eligible for up to \$2,000 in funding. Funding amounts available per team vary each year. Students may apply for funding to cover materials and travel related to the competition. A more complete list of possible K-12 and collegiate STEM programs can be found on the NDSGC website.

Examples of teams funded by the NDSGC in previous years include:

- NASA Robotics Mining
- NASA Lunabotics
- NASA Student Launch
- AIAA Design/Build/Fly
- FIRST Robotics
- First Nations Launch
- NASA Human Powered Rover
- High Altitude Student Platform
- High Power Rocketry
- Student Spaceflight Experiments Program (SSEP) on the International Space Station

# MINI-GRANTS FOR Affiliates



<https://ndspacegrant.und.edu/affiliate-members/mini-grants.html>

# MINI-GRANTS FOR Students



<https://ndspacegrant.und.edu/college-students/grants/mini-grants.html>

**Who:** faculty and staff at NDSGC affiliate institutions

**Affiliate Eligibility:** all affiliate schools (faculty and staff encouraged to apply)

**Application Deadlines:**

- Fall: August 15th
- Spring: December 1st
- Summer: April 15th

**Funding:** up to \$1,000

The NDSGC is able to support representatives at NDSGC affiliate institutions with funding to support STEM and NASA-relevant initiatives. These mini-grants are open to NDSGC affiliate representatives who are hosting or participating in research or education events related to STEM and/or NASA. Examples of such events include:

- Family Science Days
- Water Festivals
- Marketplace for Kids
- Science Olympiad
- STEM Exploration Days

These Affiliate mini-grants can also be geared toward college level initiatives, such as materials funding for STEM courses and research, or travel funding for college students to participate in field research related to their STEM courses. Preference will be given to affiliate representatives at non-research institutions and affiliate representatives who have not received a mini-grant in the previous year.



**Who:** NDSGC affiliate college students conducting STEM research

**Affiliate Eligibility:** all affiliate schools

**Application Deadlines:**

- Fall: August 15th
- Spring: December 1st
- Summer: April 15th

**Funding:** up to \$1,000

Mini-grants are available for undergraduate and graduate students who are completing STEM- or NASA-relevant research that directly affects their thesis or dissertation. All students who meet this criteria are eligible to apply. These mini-grants will be awarded each semester and may include materials funding. All funds will be distributed on a competitive basis and released depending on the current fiscal year's budget. Students requiring only travel expenses are encouraged to consider the NDSGC Travel Grants.

Students who have already completed research through the NDSGC (having earned a fellowship, mini-grant, or internship) are eligible to apply for the NDSGC to cover publication fees under this program.



**LORI WATERS (UND)**  
Fall 2021 Mini-Grant Awardee

# MINI-GRANTS FOR Educators



<https://ndspacegrant.und.edu/educators/mini-grants.html>

**Who:** ND K-12 and informal educators

**Application Deadlines:**

- Fall: September 1st
- Spring: December 1st
- Summer: April 15th

**Funding:** up to \$1,000

These mini-grants are open to ND K-12 and informal educators who are teaching, hosting, or participating in research or education initiatives related to STEM and/or NASA. These mini-grants can include but are not limited to: STEM-relevant field trips, materials and resources that enhance the STEM classroom, and participation in NASA-relevant or STEM challenges at local, regional, and national levels.

Examples of funding support include: materials for science labs or school-wide Family STEM Nights, travel support for students, etc.

Preference will be given to educators in rural or Tribal communities and educators who have not received a mini-grant in the previous year.



**STUDENTS OF ASHLEY MESSNER (K-12 EDUCATOR)**  
Spring 2021 Educator Mini-Grant Awardee

# K-12 Opportunities

LEARN MORE AND CONNECT WITH K-12 OPPORTUNITIES

[ndspacegrant.und.edu/educator-opportunities](https://ndspacegrant.und.edu/educator-opportunities)



**Who:** ND K-12 and informal educators

The NDSGC supports many STEM initiatives at the K-12 or pre-college level. Examples of such opportunities include support for FIRST Robotics, FIRST Lego League, and Student Spaceflight Experiments Program (SSEP), which enables students to launch experiments to the International Space Station.

The NDSGC also leads statewide competitions for middle and high school teams, such as the Near-Space Balloon Challenge (NSBC), where teams design and build science and engineering payloads to be launched on high altitude balloons. The NDSGC regularly collaborates with affiliate institutions to conduct space camps for K-12 students, which include hands-on NASA investigations.



**JOIN THE ND EDUCATOR EMAIL LISTSERV**  
Stay up to date on educator opportunities like **Plant the Moon!**

<https://ndspacegrant.submittable.com/submit/191128/ndsgc-electronic-mailing-list>



## RESOURCES AND ACTIVITIES



The North Dakota Space Grant Consortium provides STEM lesson plans, STEM activities, and a virtual tour of the University of North Dakota Space Suit lab on our **Wix site** (<https://spacegranteducation.wixsite.com/ndsgc>).

## AT-HOME STEM KITS

Our At-Home STEM Kits allow students to conduct a simple STEM activity wherever they live, with adult supervision. All kits are free and require minimal supplies.

Please **read through and complete this form** (<https://ndspacegrant.submittable.com/submit/183774/at-home-stem-kit>) if you would like an At-Home STEM Kit to be mailed to a North Dakota address.



## STEM PALS



The STEM Pal program allows students to submit a letter to a STEM Ambassador. The goal of STEM Pals is to encourage communication and cultivate curiosity in the fields of STEM. Students can ask a STEM Ambassador any questions they may have about Science, Technology, Engineering, Math, or college life as a STEM student.

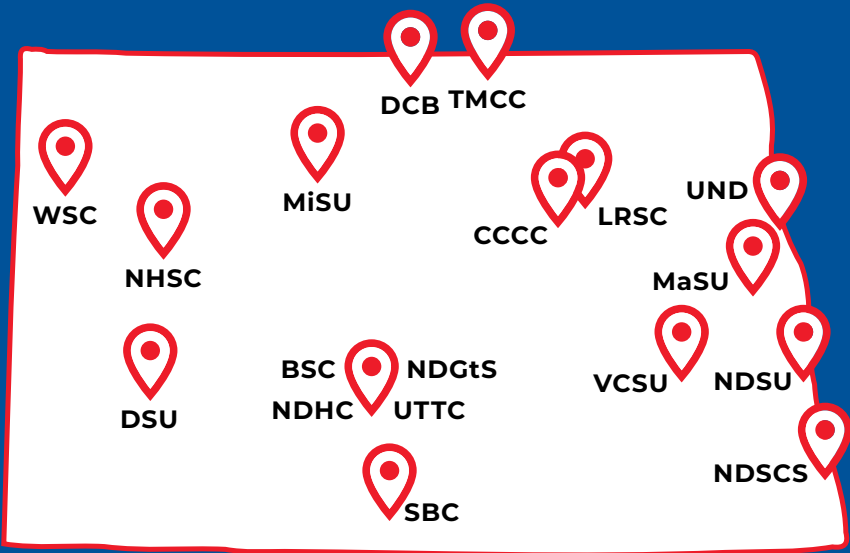
<https://ndspacegrant.submittable.com/submit/183280/stem-pals>

## STEM AMBASSADOR VISITS

STEM Ambassadors are undergraduate and graduate STEM students that conduct hands-on activities with North Dakota students, families, and communities. Please **complete our form** (<https://ndspacegrant.submittable.com/submit/183305/stem-ambassador-visits-for-educators>) if you would like to have a STEM Ambassador visit your K-12 classroom. The goal of these visits is to encourage communication and cultivate curiosity within the fields of STEM.



# NORTH DAKOTA SPACE GRANT AFFILIATES



Bismarck State College

Dakota College at Bottineau

North Dakota's Gateway to Science

Mayville State University

North Dakota State College of Science

Nueta Hidatsa Sahnish College

State Historical Society of North Dakota

United Tribes Technical College

Valley City State University

Cankdeska Cikana Community College

Dickinson State College

Lake Region State College

Minot State University

North Dakota State University

Sitting Bull College

Turtle Mountain Community College

University of North Dakota

Williston State College

## #NASainND