

New Hampshire Space Grant Consortium

NHSGC AFFILIATES

UNIVERSITY OF NEW HAMPSHIRE

At UNH, most space-related research takes place in the Institute for the Study of Earth, Oceans, and Space (EOS). Many institute researchers also teach in UNH departments of Physics, Earth Sciences, Natural Resources, Electrical and Computer Engineering, and Mechanical Engineering.



Space Grant Programs at UNH include:

- Fellowship awards to graduate students in science, engineering, and science education
- Support for undergraduate research in STEM fields provided through the UNH Undergraduate Research Awards (URA).
- Travel grants for eligible students to attend conferences, symposia, and competitions
- UNH Students have also participated in NASA Summer Academies at NASA Research Centers. The programs offer advanced students (junior year and above) a summer residential research experience in a NASA environment.

PLYMOUTH STATE UNIVERSITY

PSU hosts the only bachelors and masters meteorology programs in the state of NH, which enrolls about 40 undergraduate and 10 graduate students each year. In addition, the University has recently added an interdisciplinary bachelors degree in Climate Studies.



At PSU, NHSG supports:

- Two graduate student fellowships each year that support research projects related to scientific goals in the NASA Earth Science Directorate. Graduate students present their research at national and/or regional scientific conferences each year. After completing their degrees, the students pursue STEM careers or enroll in PhD programs.
- PSU Meteorology program is proud to be able to offer between 7 and 14 NASA Space Grant undergraduate scholarships of \$500 to \$1000 each year. The scholarships support NASA's goal of ensuring that a broad and diverse set of students are attracted to STEM through NASA opportunities. In particular these scholarships address the NASA Space Grant objective to *Recruit and train U.S. citizens, especially women, underrepresented minorities and persons with disabilities for careers in aerospace science and technology.* Scholarship recipients are expected to maintain a GPA of 3.0 and participate in an undergraduate research project.

MCAULIFFE-SHEPARD DISCOVERY CENTER

New Hampshire's own air and space museum, the McAuliffe-Shepard Discovery Center pays tribute to two famous New Hampshire space pioneers: Christa McAuliffe, NASA's teacher-in-Space; and Admiral Alan Shepard, America's first astronaut. Open year round, the Discovery Center has an all-digital, full-dome planetarium which will be upgraded in September 2022 (through special NASA funding) to one of only three planetariums in North America with a 10K projection system. The Center also has an observatory, two floors of interactive exhibits and an active STEM program series.



Space Grant at MSDC:

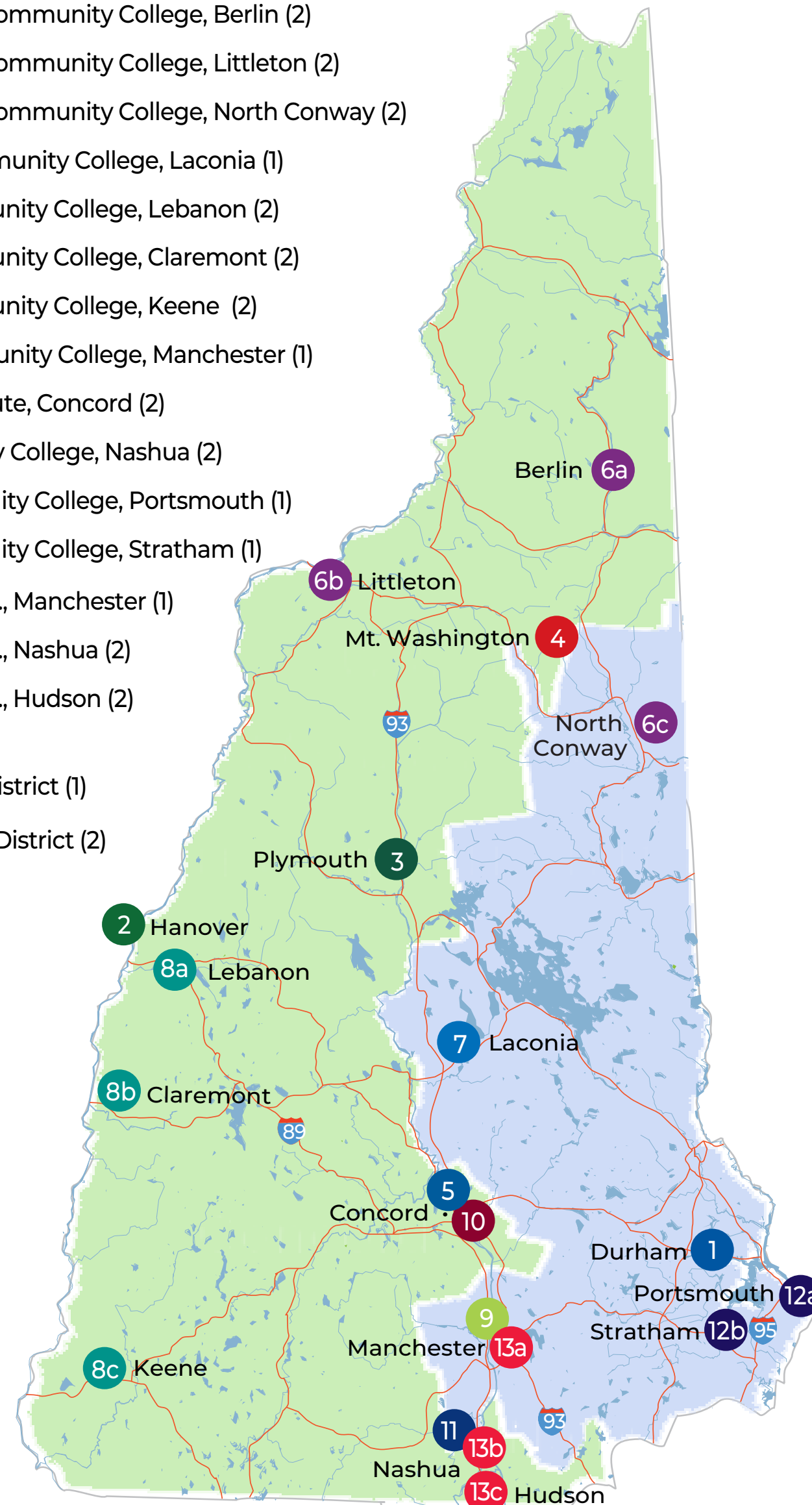
- NHSG recently funded high school students to research and build exhibits on living and working on Mars and planetary geology. The resulting exhibits will be displayed at the Center throughout Summer 2022, before they tour to other venues.
- MSDC also receives funding for two summer interns, its annual AerospaceFest, Scientist in Residence program, and travel funding for staff to attend air and space museum conferences.

New Hampshire Space Grant Affiliates cover the entire state, providing STEM education to thousands of citizens.

Eligible higher-education students must be US Citizens. NASA values diversity and strongly encourages underrepresented and nontraditional students to apply.

NH SPACE GRANT AFFILIATE MAP

- 1 University of New Hampshire, Durham (1)
 - 2 Dartmouth College, Hanover (2)
 - 3 Plymouth State University, Plymouth (2)
 - 4 Mt. Washington Observatory, Mt. Washington (1)
 - 5 McAuliffe-Shepard Discovery Center, Concord (2)
 - 6a White Mountains Community College, Berlin (2)
 - 6b White Mountains Community College, Littleton (2)
 - 6c White Mountains Community College, North Conway (2)
 - 7 Lakes Region Community College, Laconia (1)
 - 8a River Valley Community College, Lebanon (2)
 - 8b River Valley Community College, Claremont (2)
 - 8c River Valley Community College, Keene (2)
 - 9 Manchester Community College, Manchester (1)
 - 10 NH Technical Institute, Concord (2)
 - 11 Nashua Community College, Nashua (2)
 - 12a Great Bay Community College, Portsmouth (1)
 - 12b Great Bay Community College, Stratham (1)
 - 13a BAE Systems of N.A., Manchester (1)
 - 13b BAE Systems of N.A., Nashua (2)
 - 13c BAE Systems of N.A., Hudson (2)
- 1st Congressional District (1)
2nd Congressional District (2)



DARTMOUTH COLLEGE

Dartmouth College offers STEM undergraduate and graduate programs in a wide range of study including physics, astronomy, engineering, life sciences, and computer science.

At Dartmouth, Space Grant supports:

- Scholarships to outstanding students in physics, engineering, Earth sciences, and aerospace-related fields.
- Participation in NASA Summer Academies.
- **Student research internships** in Departments of Physics and Astronomy, Earth Science, and Computer Science, and the Thayer School of Engineering.
- Sophomore internships to women students interested in space-related fields.
- Graduate fellowships, which cover stipend and tuition, and are awarded for one or more academic quarters.
- Travel grants for students and their mentors to participate in professional meetings relevant to NASA's strategic interests.
- Awards for outstanding M.S. and PhD. research in NASA-related fields.
- Women in Science, which focuses on creating a learning environment where women can thrive in science, engineering and mathematics. WISP enhances experiences of Dartmouth women through a set of proven intervention strategies that includes: mentoring, early hands-on research experience, role models, access to information, and building a community in the sciences.

COMMUNITY COLLEGE SYSTEM

The Community College System of New Hampshire (CCSNH) serves approximately 24,000 students annually from seven colleges and five academic centers across NH.



CCSNH offers over 200 degree and certificate programs to help students reach their educational and career goals, including multiple STEM programs, from environmental science to information technology and beyond.



The NASA Space Grant Scholarship is available to full-time students enrolled in a STEM certificate or degree program at any CCSNH college.

MOUNT WASHINGTON OBSERVATORY

MWO's mission is to advance understanding of the natural systems that create Earth's weather and climate. It maintains a weather station on the summit of Mount Washington, performs weather and climate research, conducts innovative science education programs, and interprets the heritage of the region.



With bitter cold, freezing fog, heavy snow and legendary wind, Mount Washington is the "Home of the World's Worst Weather." Since 1932, the hardy staff of the Mount Washington Observatory has studied and documented the incredible conditions atop Mount Washington, utilizing this site for scientific research and education.

With support from NHSGC, they offer an innovative education program, bringing the science of weather and climate to the public through its museums, website, outreach programs and distance learning. This popular program allows students across the country the opportunity to learn directly from scientists stationed at the summit. Program topics include weather and climate, instrumentation, and alpine zone ecology and are taught via a live videoconference format.

INDUSTRY PARTNER: BAE SYSTEMS

BAE Systems, Inc. is committed to education and skills development throughout its global business, believing it is vital to encourage young people to consider careers in science and engineering.

In the U.S., they are involved in a range of activities, including the FIRST (for Inspiration and Recognition of Science & Technology) program, an international engineering-based competition. In FIRST, high school students develop team-building and engineering skills by designing and building robots that can accomplish a range of tasks.

Locally, the Nashua, N.H., unit of BAE Systems North America supports NH high school students competing in the FIRST robotics challenge. They financially support a high school team, and the BAE staff mentors that team in designing, building and testing their competition robots. Their employees also serve as N.H. FIRST Lego League partner, bringing this middle school program to future engineers.

BAE Systems FOCUS (Fostering Opportunities and Careers Utilizing STEM) engages high school aged students in the Southern New Hampshire and Northern Massachusetts areas in activities to help promote interest in careers in science, technology, engineering and mathematics.