National Air and Space Museum
2022 Summer Internship Program

Virtual Opportunities

Digitization, Digital Accessibility

Assist the museum's digital team with projects related to the digitization of museum assets and providing access to those assets including accessibility for all potential users. The digitization and digital accessibility work is done within the museum's Communications department.

Preferred College Majors: None
Preferred Education Level: None
Additional Skills: Excellent written and verbal communication, ability to use Excel/content management systems/database software. great collaborator, comfortable working independently or with a team

Early Childhood Programs

Assist mentor with research, development, and education programs for the early childhood programs. The intern will research potential topics for our signature stories on YouTube, Flights of Fancy Story Time. They will create and evaluate Smithsonian Learning Lab collections to coordinate with existing programs and develop program content in the museum. This intern position will help NASM to educate and inspire young children and their adult companion virtually visiting the museum. Mentor will provide guidance on appropriate pedagogy, relevant content area concepts, and alignment to the museum's educational goals.

Preferred College Majors: Education
Preferred Education Level: Graduate
Additional Skills: None

Hybrid Opportunities

Analysis of Basaltic Sediment Samples

The intern will conduct laboratory analyses of basaltic sediment collected from a variety of environments to understand how basalt weathers as a function of geologic transport process and distance. The analyses will include scanning electron microscope (SEM) images of the surfaces of basaltic particles, point counts of the mineral components in samples using a optical microscope, grain size analyses using mechanical sieving devices, and written documentation of the work and interpretations.

Preferred College Majors: Geology, Environmental Science
Preferred Education Level: None
Additional Skills: None

Artifact Shipping Documentation Reconciliation

Assist CPU shipping and receiving with reconciliation of its old paper shipping records. This position will help the CPU shipping/receiving personnel with creating a digital system for documenting, filing, and verifying the shipment of artifacts internally and externally at NASM.

Preferred College Majors: Museum Studies, History, Art History
Preferred Education Level: None
Additional Skills: None

Astronomy Education Internship

Two interns will learn about astronomy education and communicating astronomy to the public as they help research, create, and facilitate astronomy education programs and resources for the public. As part of the project, interns will: a)work together as a part of a team to help research, develop, and/or revise astronomy activities and resources which reflect educational best practices and meet the needs of users locally, nationally, and internationally, both onsite and virtual b) help train volunteers and staff to have engaging and effective conversations about science and history with participants both onsite and virtually c) learn about and assist on other projects as interested and necessary, including helping develop astronomy and spaceflight media experiences, and other education projects.

Preferred College Majors: Any
Preferred Education Level: None
Additional Skills: None

Communications (Media Relations/Press, Marketing, Social Media and Other Duties)
Assist the museum communications team with a variety of tasks related primarily the museum's external communications with some internal communications assistance. Support team with research, preparing and distributing materials; supporting communications events, video and media shoots; tracking and preparing reports on results of communications efforts.

Preferred College Majors: Any
Preferred Education Level: None
Additional Skills: None

Discovery Station Programs

Assist mentor with research, development, evaluation, and implementation of education programs for the Discovery Station Programs including, updating, interpretive plans to reflect new Museum/gallery artifacts and supporting program implementation. This intern position will help NASM to educate and inspire students around STEM topics and deepen engagement with museum visitors. Mentor will provide guidance on appropriate pedagogy, relevant STEM concepts, and informal educational programs.

Preferred College Majors: Education
Preferred Education Level: None
Additional Skills: Must be available to travel to Udvar-Hazy Center

Explainer Program

Assist mentor with research, development, and evaluation of education programs for the Explainer Program including updating interpretive plans for Discovery Stations, Interactives, and Demonstrations and creating new content. This intern position will help NASM to educate and inspire students around STEM topics and deepen engagement with visitors visiting the museum. Mentor will provide guidance on appropriate pedagogy, relevant STEM concepts, and informal educational programs.

Preferred College Majors: Education
Preferred Education Level: None
Additional Skills: Must be available to travel to Udvar-Hazy Center

Exploring the Tectonism of Saturn's Moon Titan

Planetary geology is an interdisciplinary science that employs myriad skills including geologic mapping and numerical modeling. The selected intern with make detailed observations of planetary bodies like Titan using data from the Cassini spacecraft. The intern will use a comparative planetological approach to understanding the history of tectonic landforms on ocean worlds.

Preferred College Majors: Geology, Environmental Science
Preferred Education Level: Undergraduate
Additional Skills: A background in the physical sciences or engineering and a willingness to learn geospatial software packages are required.

Fluvial Features

Mapping fluvial features around large craters on Mars with emphasis on Jones crater in Margaritifer Terra. Evaluate the context of the fluvial features relative to younger and older surfaces as established by mapped stratal relationships and superposing crater densities. Work is a subproject of a NASA-funded effort led by S. Purdy in CEPS focused on mapping a broader portion of Margaritifer Terra. Goal is to understand the timing and source of any late water contributing to drainage in and around the crater(s).

Preferred College Majors: Geology, Environmental Science
Preferred Education Level: None
Additional Skills: A background in the physical sciences or engineering and a willingness to learn geospatial software packages are required.

Hilton Middle School Programs

Assist mentor with research, development, and evaluation of education programs for the Hilton Middle School Program including the development of engineering design challenges, classroom programming for multiple grade levels, and piloting new educational programs. This intern position will help NASM to educate and inspire students around STEM topics and deepen engagement with middle school students

visiting the museum. Mentor will provide guidance on appropriate pedagogy, relevant STEM concepts, and Next Generation Science Standards.
Preferred College Majors: Education
Preferred Education Level: None
Additional Skills: Must be available to travel to Udvar-Hazy Center

Investigating Martian Flood Discharges

Recent work on outburst flood-carved canyons in the Channeled Scablands of eastern Washington, USA, often used as analogues for the large Mars Outflow Channels, suggests that floods much smaller than modern brimful levels were responsible for canyon incision. The revised discharges are at least an order of magnitude lower than previous estimates which assume canyons were filled to their brims, an assumption often applied to estimating discharges through Martian canyons. Flood discharges are often used to constrain sediment and bedrock characteristics such as grain size and erodibility, geologic conditions which are not widely detectable by remote sensing methods, as well as local and global paleoclimatic conditions. Assuming brimful flows may therefore lead to inaccurate estimates of important indicators of Mars' past environment. Here, we propose to model floods through Ares Vallis, a large outflow channel on Mars, to determine peak flood discharges before and after correcting for flood-driven erosion, and compare the estimated sediment grain sizes, total flood durations, and probable water sources for each discharge. Ares Vallis was chosen as the study site because: 1) its geometry suggests incision by extreme floods, 2) prominent terraces indicate former valley floor elevations which can be used to reconstruct topography to represent pre-incision conditions, and 3) the ages of these terraces span from the late Noachian to the early Amazonian, providing insight into a large portion of Martian history. This study will revise estimates of key properties of the Martian surface and climate, and lead to improved insight into the role of floods in the planet's evolution.

Preferred College Majors: Geology, Environmental Science
Preferred Education Level: Graduate
Additional Skills: ArcGIS, Hydraulic Modeling

Military Gallery Digital Media Support

Conduct research at National Archives (College Park site), Library of Congress, and National Air and Space Museum archives; to locate and digitize assets for presentation in digital and mechanical interactives to be deployed in the World War I, World War II, and Modern Military Aviation galleries scheduled to open in 2024-2025. The intern will have the opportunity to participate in weekly design meetings associated with the development of over 15,000 sq. ft. of exhibition space as part of one of the nation's largest exhibition development projects. COVID conditions permitting, two days per week will be spent at archives and three days onsite in museum offices.

Preferred College Majors: History Museum Studies Library and Information Science
Preferred Education Level: Graduate
Additional Skills: Prior Experience Conducting

Public Programs Intern

Intern will assist with planning, logistics, and execution of museum's public programs targeting adult and young professional audiences. Tasks will include helping program managers to develop schedules and

timelines for events (virtual and hybrid), secure internal logistics and volunteer support, develop plans for outreach and promotion, and investigate potential topics and speakers. The intern position will also assist with public programs and content associated with AirSpace, NASM's young professional satellite brand, that includes after hour programs, a podcast, and other digital social content.

Preferred College Majors: History Museum Studies Library and Information Science
Preferred Education Level: None
Additional Skills: None

Soar Together @ Air and Space Family Programs

Under the supervision and training of the Family Programs Education Specialist, the Family Programs Intern will assist in the administration coordination, development, and implementation of public programs, specifically on Soar Together Family Days for intergenerational groups and a video project for general audiences.

Preferred College Majors: Education
Preferred Education Level: Graduate
Additional Skills: None

Soar Together @ Air and Space Family Programs (Part-Time 20 weeks)

Under the supervision and training of the Family Programs Education Specialist, the Family Programs Intern will assist in the administration coordination, development, and implementation of public programs, specifically on Soar Together Family Days for intergenerational groups and a video project for general audiences. The position is half time for 20 weeks during the summer and fall.

Preferred College Majors: Education
Preferred Education Level: Undergraduate
Additional Skills: None

Teacher Professional Development Programs

The intern will assist with the creation of a plan for teacher professional development for 2022-2023 school year, as well as assist in the final planning and onsite facilitation of the 2022 Teacher Innovator Institute (TII). This intern position will further STEAM engagement and programming from NASM by helping teachers deliver better classroom content and will align with the strategic plan initiative to build capacity in educators to engage students in learning through the museum's collections.

Preferred College Majors: Education
Preferred Education Level: Graduate
Additional Skills: Must be available to travel to Udvar-Hazy Center

Venus Geologic Studies with Radar Data

Assist mentor in studies of the Venus surface using radar data from the Magellan mission and the Arecibo telescope. This work will introduce the intern to broad questions in planetary science and the

methods and applications of remote sensing. The timing is especially relevant as NASA recently selected two missions to explore Venus in the next ten years.

Preferred College Majors: Geology, Geophysics
Preferred Education Level: Undergraduate
Additional Skills: None

Video Broadcast System Intern

Selected intern will work with NASM Education AV Specialist to help configure, test, and improve two IP-based video broadcast systems. Intern will get an opportunity to co-produce broadcast-style recordings and migrate them to postproduction.

Preferred College Majors: Communications, Video Production, IT
Preferred Education Level: None
Additional Skills: None

Visitor Services Intern

This internship is located with the Visitor Services Division, under the Associate Director for Education and Visitor Experience of the National Air and Space Museum, Smithsonian Institution. The Visitor Services Division is responsible for implementing Visitor Services programs for daily visitor operations and activities in the public areas of the Museum. Visitor Services is seeking a late-undergraduate or graduate-level summer Intern to support and improve our various programs. The position will assist with the day-to-day management of Visitor Services, including customer service, supporting volunteer training, managing volunteer schedules, and enhancing the visitor experience at the Steven F. Udvar-Hazy Center in Chantilly, VA. The Intern will also play a role in reimagining how volunteers and staff participate in visitor experience, both during and after the coronavirus epidemic. This includes assisting with new facilitation techniques and trainings for volunteers and docents and helping to determine the future of virtual docent-led programs. The Smithsonian aims to build on its unique strengths to engage and to inspire people where they are in meaningful and relevant ways. This internship will have direct impact on how the National Air and Space Museum will shape these important conversations with our visitors and volunteers.

Preferred College Majors: None
Preferred Education Level: None
Additional Skills: None

In-Person Opportunities

Logistics Department Intern

Assist the NASM Logistics team with management of programs including facility and maintenance projects, Revitalization and Transformation, and safety health, and emergency management. The intern position will have the opportunity to engage with a range of stakeholders across NASM and SI to learn and support Museum facilities and operations.

Preferred College Majors: Safety and Health, Engineering
Preferred Education Level: None
Additional Skills: None

STEM Camp Education Interns - DaRin Butz

Assist mentor with research, development, evaluation, and implementation of education programs for spring STEM Camps. These 3 intern positions will help NASM to educate and inspire students around STEM topics and deepen engagement providing multiple sessions of a summer STEM Camp. Mentor will provide guidance on appropriate pedagogy, relevant STEM concepts, and Next Generation Science Standards.

Preferred College Majors: Education, Engineering
Preferred Education Level: None
Additional Skills: Must be available to travel to Udvar-Hazy Center and will be required to work weekends during the SHE Can Camp.

STEM Camp Education Interns – Walton

Assist mentor with research, development, evaluation and implementation of education programs for spring STEM Camps. These 2 intern positions will help NASM to educate and inspire students around STEM topics and deepen engagement providing multiple sessions of a summer STEM Camp. Mentor will provide guidance on appropriate pedagogy, relevant STEM concepts, and Next Generation Science Standards.

Preferred College Majors: Education, Engineering
Preferred Education Level: None
Additional Skills: Must be available to travel to Udvar-Hazy Center and will be required to work weekends during the SHE Can Camp.

STEM Camp Education Interns - Walton (Part-Time 10 weeks)

Assist mentor with research, development, evaluation, and implementation of education programs for spring STEM Camps. These 5 intern positions will help NASM to educate and inspire students around STEM topics and deepen engagement providing multiple sessions of a summer STEM Camp. Mentor will provide guidance on appropriate pedagogy, relevant STEM concepts, and Next Generation Science Standards.

Preferred College Majors: Education, Engineering
Preferred Education Level: None
Additional Skills: On location at Fayetteville, Arkansas