



# Equal Access: Universal Design of Your Advancing Informal STEM Learning (AISL) Project

**DO-IT**

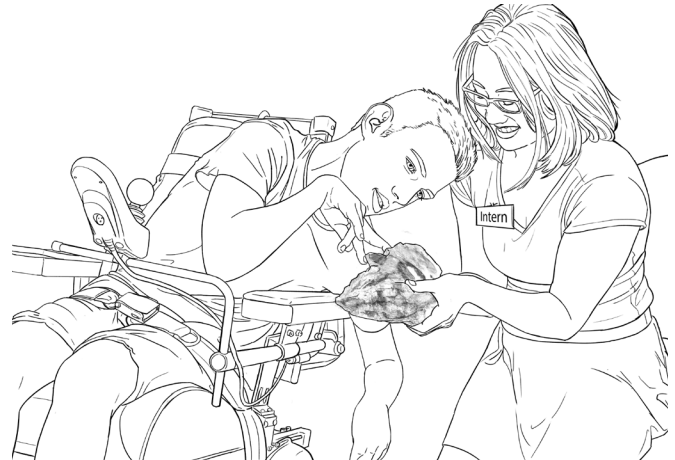
A checklist for making NSF-funded AISL projects welcoming and accessible

The National Science Foundation's (NSF's) Advancing Informal STEM Learning (AISL) program creates new approaches to and grows evidence-based understanding of the design and development of science, technology, engineering, and math (STEM) learning opportunities in informal environments. It also provides multiple methods for broadening access to STEM learning experiences; advances innovative research on and assessment of informal STEM learning environments; and engage the public of all ages in learning STEM in informal environments.

One of the three pillars in the vision of the NSF Strategic Plan for Fiscal Years 2022-2026 is "assuring accessibility and inclusivity" in NSF-funded projects ([nsf.gov/news/special\\_reports/strategic\\_plan](https://www.nsf.gov/news/special_reports/strategic_plan)). Expanding opportunities for individuals with disabilities and ensuring equal access to all aspects of programming will help principal investigators further their impact, increase diversity in their activities and research, and further NSF's goal of broadening participation in STEM fields.

## Legal Issues

Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and the Americans with Disabilities Act and its 2008 Amendments mandate that no otherwise qualified person with a disability shall, solely by reason of their disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination in public programs. This means that courses, services, information resources, and project activities should be accessible to qualified individuals with disabilities. While we can offer recommendations, this publication does not provide legal advice; for such advice, contact campus resources or the U.S. Office of Education's Office for Civil Rights (OCR).



## Universal Design

Universal design (UD) is a proactive approach that makes facilities, information, instruction, activities, and other facets of a project accessible to and usable by a diverse audience, including individuals with disabilities. UD is defined as "the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design" ([projects.ncsu.edu/design/cud/about\\_ud/about\\_ud.htm](https://projects.ncsu.edu/design/cud/about_ud/about_ud.htm)). This means that rather than designing for the average person, design for people with a broad range of native languages, gender identities, racial and ethnic backgrounds, and abilities. Universally designing your AISL project will make its resources, trainings, meetings, and other offerings welcoming and accessible to a broad audience and minimize the need for accommodations for individual participants.

## Guidelines and Examples

Addressing the following questions provides a good starting point for making your AISL project facilities, information technology, resources, and activities accessible to people with disabilities.



## Planning, Policies, and Evaluation

Consider diversity issues as you plan and evaluate AISL project offerings.

- In your project proposal and implementation do you ensure there is expertise in disabilities, accommodations, and universal design through a staff member, consultant, or partnership with an organization that specializes in this area? Do you include costs for accommodations and access-related consultations in the proposal?
- If you have an AISL project, have you considered submitting a request for supplemental funding to support access to and engagement in STEM learning, research, and workforce development for students, postdoctoral scholars, or faculty and staff with disabilities? Learn more at [beta.nsf.gov/funding/opportunities/persons-disabilities-stem-engagement-and-access-pwd-sea](https://beta.nsf.gov/funding/opportunities/persons-disabilities-stem-engagement-and-access-pwd-sea).
- Do project policies and procedures ensure access to facilities, events, and resources for people with disabilities?
- Does a simple, transparent procedure to ensure a timely response to requests for disability-related accommodations exist and are staff and participants made aware of these services?
- Do project policies and procedures that support people with disabilities move beyond minimum levels of compliance and accommodations for individuals to focus more broadly on universal design?
- Are disability-related access issues addressed in research design, data collection, and evaluation instruments? Do you include disability along with other requests for demographics on surveys and present this data in project reports and published articles?

## Information Resources and Technology

If your AISL project uses computers for the delivery of activities or resources, ensure digital tools and products employ accessible design, that staff members are aware of accessible design, and systems are in place to make accommodations when requested.

- Do pictures in your publications and websites include people with diverse characteristics that include disability?
- Are all publications designed to be accessible to people with blindness as well as learning and other disabilities? Do project web pages adhere to accessibility guidelines or standards adopted by your institution, such as the Web Content Accessibility Guidelines?
- Do key publications and websites include a statement about commitment to diversity, equity, and inclusion, as well as procedures for requesting disability-related accommodations? For example, a project website could include the following statement: “The [project name] values diversity, equity, and inclusion and strives to make project facilities, technology, courses, information resources, and services accessible to everyone, including those with disabilities. Please inform staff of accessibility barriers you encounter and request accessibility accommodations at [email address].”
- Do videos developed or used in the project have accurate captions?
- Is the technology used for project communication and collaboration accessible?
- Are there flexible policies that allow participants to attend meetings and activities remotely? Are important meetings recorded, captioned, and shared for those who cannot attend?

For more information, consult Accessible Technology at [uw.edu/accessibility](https://uw.edu/accessibility).



### Project Facilities

Ensure physical access, comfort, and safety for individuals with disabilities within environments used by your AISL project. Make them welcoming to participants with a variety of abilities, racial and ethnic backgrounds, genders, and ages.

- Are all levels of facilities connected via wheelchair-accessible routes? Are accessible routes of travel easy to find? Do restroom, entrance, and other commonly used doors have sensors or buttons for automatic opening? Are they regularly inspected to ensure functionality?
- Do elevators have auditory, visual, and tactile signals and controls accessible from a seated position?
- Are there parking areas, pathways, and entrances to the building that are wheelchair accessible and clearly identified?
- Are aisles kept wide and clear of obstructions for the safety of users who have mobility or visual impairments?
- Are wheelchair accessible and child-friendly restrooms with well-marked signs available in or near the facility?
- Is at least part of a service counter at a height accessible from a seated position?

- Are adjustable-height tables, ergonomic chairs, and adequate / adjustable light available?
- Are there ample high-contrast, large-print directional signs to and throughout facilities? Is braille signage used where appropriate?

Consult the ADA Checklist for Readily Achievable Barrier Removal at [ada.gov/checkweb.htm](http://ada.gov/checkweb.htm) for more suggestions. For accessibility guidelines for specific facilities (e.g., engineering labs, makerspaces, computer labs), visit [uw.edu/doit/programs/accesscollege/stem-lab/resources/make-physical-environments-accessible-students](http://uw.edu/doit/programs/accesscollege/stem-lab/resources/make-physical-environments-accessible-students).

### Staff

Make sure project staff are prepared to work with all project participants.

- Do staff members know how to respond to requests for disability-related accommodations, such as sign language interpreters?
- Are staff and contractors in specific assignment areas (e.g., event management, web page development, video creation) knowledgeable about accessibility requirements and considerations?
- Are staff members aware of issues related to communicating with participants who have disabilities? See Communication Hints at [uw.edu/doit/programs/accesscollege/student-services-conference-room/resources/helpful-communication-hints](http://uw.edu/doit/programs/accesscollege/student-services-conference-room/resources/helpful-communication-hints)

Do staff deliver conference presentations and exhibits that are accessible to all participants (e.g. with captions, accessible handouts, large print and high contrast slides)? See Universal Design of Physical Spaces at [uw.edu/doit/programs/center-universal-design-education/postsecondary/universal-design-physical-spaces](http://uw.edu/doit/programs/center-universal-design-education/postsecondary/universal-design-physical-spaces) for details.



## Checklist Updates

To increase the usefulness of this working document, send suggested improvements to [doit@uw.edu](mailto:doit@uw.edu).

## Additional Resources

The Center for Advancement of Informal Science Education (CAISE) is a resource center for the informal STEM education field funded by the NSF AISL program. Their website provides examples of and resources for projects and project teams who are working in informal environments in order to support ongoing, evidence-based improvement and ideation development for new innovations.

*The Center for Universal Design in Education (CUDE) at [www.uw.edu/doit/programs/center-universal-design-education/overview](http://www.uw.edu/doit/programs/center-universal-design-education/overview). CUDE documents that may be relevant to your AISL project (including those that apply to the design of meetings, professional organizations, conference exhibits, presentations, and online learning) can be found at [uw.edu/doit/programs/center-universal-design-education/universal-design-projects-conference-exhibits](http://uw.edu/doit/programs/center-universal-design-education/universal-design-projects-conference-exhibits).*

## About AccessISL

DO-IT's *Access to Informal Science Learning (AccessISL)* project supports efforts to develop a capacity building model for making informal science learning opportunities more welcoming and accessible to everyone, especially individuals with disabilities.

*AccessISL* offers engagement that will empower STEM students with disabilities and museology students and bring together three groups of professionals—those who offer ISL programs, those who train future ISL professionals, and those who specialize in access issues for individuals with disabilities—to work toward a worthy goal: More inclusive ISL programs in our communities.

Project outcomes benefit society by making STEM opportunities available to more citizens and enhancing STEM fields with the talents and perspectives of people with disabilities.

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## Acknowledgments

Much of the content of this publication comes from an earlier document, *Equal Access: Universal Design of Your Project*, which was funded by the U.S. Department of Education (FIPSE Grant #P116D990138-01) and the NSF (Cooperative Agreement #0227995). It is also based upon work supported by the National Science Foundation under Grant #HRD-2017017 and HRD-2017054. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author and do not necessarily reflect the views of the funding sources.

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