Equal Access: Making STEM Departments More Accessible to and Inclusive of Faculty with Disabilities

Guidance and a checklist for getting started

Application pools for faculty positions in science, technology, engineering, and mathematics (STEM) have become increasingly diverse. However, the inaccessible design of the employment application process, as well as facilities, software tools, services, and online resources on many campuses, continue to erect barriers to some applicants and employees with disabilities, including those who are also members of other marginalized groups.

Keep in mind that many individuals with disabilities who are applicants or employees do not disclose their disabilities to an institution. For some, a decision to not disclose is due to concerns about inaccurate information, discrimination, and prejudice with respect people with disabilities, often called "ableism." Systematically reviewing and improving campus communications, worksites, meetings, technology, events, and services to make them more accessible and inclusive to faculty members with disabilities has the potential to contribute to an inclusive campus culture, reduce the need for individual accommodations, and create a level playing field that does not erect barriers to faculty success. Campus leaders are encouraged to review institution-wide and departmental policies and procedures, consider if each reflects an inclusive culture, and make changes accordingly.

The *AccessADVANCE* project, led by the University of Washington and North Dakota State University, is funded by the National Science Foundation (NSF) to promote systemic changes that will increase the successful participation and advancement of women with disabilities in STEM faculty careers. This document provides a framework and asks questions regarding systemic issues campus leaders and advocates can consider to achieve this goal. It was developed with input and guidance from *AccessADVANCE* collaborators.

Challenges Faced by Female Faculty with Disabilities

The following reported experiences illustrate structural barriers that can make academic careers unwelcoming and inaccessible to some women with disabilities.

- A senior graduate student who is blind often encounters journal articles, review processes, and submissions processes that are inaccessible to her. She faces delays in securing accessible articles and requires the help of sighted colleagues to prepare and review articles. Increasing the awareness and skills of organizations who create inaccessible processes and products could reduce the need for such accommodations.

- The productivity of a faculty member in computer science is reduced as well as her ability to travel when her health-related disability flares up. A tenure and promotion process that takes into consideration disability-related issues, such as one that extends the deadline for earning tenure, helps her move down a successful career path.

- A faculty member who is quadriplegic requires accessible lab space equipment and has difficulty traveling, but has participated in conferences remotely using a telepresence robot. Institutional support and funding for designing an accessible lab and shipping the robot has allowed her to be successful.

- A faculty member with a disability reported that funding for accommodations was expected to come from her own grant and departmental budgets. Centralized funding for accommodations, and clear institutional policies that highlight the availability of this funding, could better support faculty that need accommodations.

- A faculty member finds that the burdens of disclosure, requesting accommodations, and being asked to ensure that departmental activities are accessible require too much time. Ensuring that departmental staff are knowledgeable about accessibility and proactively consider accessibility has alleviated some of this burden.

Universal Design

Universal design (UD) can be used as an overall framework that can be used to make a department or campus welcoming, accessible, and inclusive of all potential students and employees, including women
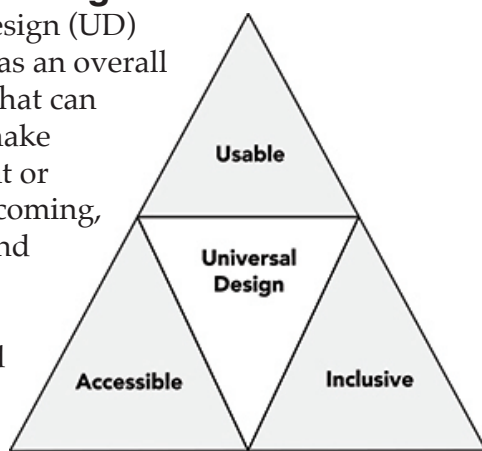
with disabilities in STEM faculty positions. Universal design is defined as "the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.[1] UD suggests that, rather than design campus offerings for the average user, design them for all, including those with a wide range of abilities, races, ethnicities, native languages, cultures, sexual identifies, ages, and other characteristics. Universally designed products and environments are intentionally created to be accessible to, usable by, and inclusive of everyone.

More information about the principles and applications of UD can be found in *Universal Design in Education: Principles and Applications*[2] in the *Center for Universal Design in Education*.[3] In applying UD, keep in mind that individuals in your department have a range of abilities including, but not limited to, those with respect to learning, vision, speech, hearing, mobility, attention, autism, or mental health.

In applying UD, a department should make sure everyone
- feels welcome,
- can get to and maneuver within facilities,
- has full access to technology tools and digital resources,
- can engage with all colleagues and students, and
- has access to an effective system for requesting accommodations.

Guidelines and Examples

AccessADVANCE has drafted the following checklist of questions to highlight some promising practices departments can consider implementing as they make their offerings more accessible and inclusive of faculty members with disabilities. Implementing the practices in this publication will benefit other individuals as well. That is an advantage of employing the UD framework! These suggestions also benefit faculty who have not disclosed a disability or have newly acquired a disability and may be learning about their own access needs.

Consult the offices on campus that provide accommodations for faculty and students with disabilities for additional suggestions and the ADA/504 compliance officer, the campus legal counsel, or the regional Office for Civil Rights (OCR) regarding relevant legal issues.

Policies and Evaluation

Ensure that diversity, including disability, issues are addressed in all policies and evaluations regarding your offerings.

— Does the department and campus ensure that new hires and other faculty are aware of the workplace accommodation process provided? Is the process clearly explained on faculty and public websites? Does this information include examples of accommodations provided? Does it encourage suggestions for making a department more inclusive?

— Are people with diverse characteristics, including disabilities, intentionally encouraged to engage in departmental and campus planning and advisory committees?

— Do policies and procedures require that accessibility be considered in design, development, and procurement processes (e.g., regarding facilities, IT, and services)?

— Are disability-related access issues addressed in internal and external evaluations of the department or campus?

Department/Campus Culture
Consider disability issues as you plan and evaluate your facilities and offerings.

— Do campus or departmental diversity, equity, and inclusion (DEI) initiatives address issues relevant to faculty members with disabilities?

— Is there a campus-supported organization that supports faculty with disabilities by facilitating communication, networking, support, and advocacy?

— Are accessibility-related issues considered when reporting or discussing department or campus successes and challenges and conducting individual performance reviews?

— Do policies and procedures that support people with disabilities, whether campus-wide or within departments, move beyond minimum levels of compliance for individuals to a focus more broadly on universal or inclusive design?

— Do you include disability issues on campus climate and other surveys of faculty and compare responses of faculty with disabilities to those of others?

— Do the institution and departments offer opportunities and strategies for faculty members to learn about and negotiate accommodations?

Physical Environments
Ensure physical access, comfort, and safety within an environment that is welcoming to visitors with a variety of abilities, racial and ethnic backgrounds, genders, and ages.

— Are all levels of departmental facilities connected via wheelchair-accessible routes of travel? Are accessible routes of travel easy to find? Do all commonly used exterior and restroom doors have sensors or buttons for automatic opening? Are they regularly inspected to ensure functionality?

— Are there ample high-contrast, large-print directional signs to and throughout labs, offices, classrooms, and other facilities? Is braille signage used where appropriate?

— Do elevators have auditory, visual, and tactile signals and controls accessible from a seated position? Are wheelchair-accessible restrooms with well-marked signs available? Is emergency evacuation equipment for people with mobility disabilities available? Are staff trained in its proper use?

— Are adjustable-height tables, ergonomic chairs, and adequate/adjustable light available?

— Is there adequate ventilation in meeting rooms, classrooms, and labs?

— Are there policies and procedures to ensure that accessibility issues are addressed when facilities are constructed or remodeled and when furniture and equipment are procured?

Consult the *ADA Checklist for Readily Achievable Barrier Removal*[4] for more suggestions.

Support Services

Make sure support staff are prepared to work with all faculty, including those with disabilities.

— Do staff members know how to respond to requests for disability-related accommodations (e.g., sign language interpreters)?

— Are staff members familiar with the availability of alternate document formats?

— Are staff members aware of issues related to communicating with individuals of different races, ethnicities, ages, and abilities? See the DO-IT's Communication Hints Knowledge Base article.[5]

— Are staff responsible for designing and developing websites knowledgeable about accessible web design?

Consult *Equal Access: Universal Design of Campus Services*[6] for more suggestions for making services accessible to everyone.

Information Resources and Technology

Ensure that publications and websites are welcoming and accessible to all. Make sure accessible technology is available to faculty with disabilities.

— Are there flexible policies that allow individuals to attend meetings and work remotely? Are important meetings captioned, recorded, and shared for those who cannot attend or wish to watch them at a later time?

— Do departmental and campus web pages adhere to accessibility guidelines or standards adopted by your institution or your department? For information about designing accessible websites, consult W3C's Web Content Accessibility Guidelines.[7]

— Do key publications and websites include a statement about commitments to diversity, equity, and inclusion, as well as procedures for requesting disability-related accommodations? For example, a department could include the following statement: "The [name] Department values diversity, equity, and inclusion and strives to make facilities, technology, courses, information resources, and services accessible to everyone, including those with disabilities. Please inform administrators of accessibility barriers you encounter and request accommodations that will make facilities courses, services, and information resources accessible to you."

— Do policies and procedures require that accessibility be considered in development and procurement processes (e.g., with respect to software procurement, website development)? (See, for example, the Web Content Accessibility Guidelines[7]). Is specific staff support for these efforts funded?

— Is it made clear to faculty (perhaps in a faculty handbook or website) how they can request guidance in choosing assistive technology (perhaps through the central accessible IT unit)? Are central funds available for faculty members to procure assistive technology?

Accommodations

Put systems in place to ensure reasonable accommodations are available to faculty.

— Does a simple, transparent procedure to ensure a timely response to requests for disability-related accommodations exist and are faculty made aware of these services (e.g., in a faculty manual, in faculty and staff orientations, or in another meeting?)

— Are all disabilities (including those that are not obvious, such as health impairments or mental health issues) considered in disability accommodations and initiatives? Consider emphasizing this with statements such as, "To request accommodations related to disabilities—such as those that impact sight, hearing, mobility, learning, attention, mental health, and chronic illness—contact…"

— Are accommodations approved and funded efficiently through a central institutional unit and budget so departments avoid the appearance that individual faculty members with disabilities are a financial burden? Are service units agile in their responses and do they consider requests that go beyond minimum compliance to consider funding for such things as teaching and research assistants, release time, summer months, and additional sabbatical credit for faculty with disabilities?

Checklist Updates and Additional Resources

This checklist was adapted with permission from other checklists within the *Center for Universal Design in Education*.[3] To increase its usefulness, please send suggestions for updates to *doit@uw.edu*.

For more information about applications of universal design, consult *The Center for Universal Design in Education* website or the book *Creating Inclusive Learning Opportunities in Higher Education: A Universal Design Toolkit*[8] published by Harvard Education Press.

Getting Started

Although looking at a long list of suggestions may seem overwhelming, an important characteristic of UD strategies is that they can be implemented incrementally. For example, a department might begin by assigning an existing diversity committee or creating a new task force to explore ways of making the department more welcoming and accessible to faculty with disabilities. Members of the advisory group could, as they go through the checklist provided in this publication, cross off items not applicable in their department, note as "done" those that have already been implemented, and label with a recommended deadline date for those they feel should be addressed by the department. Then, using the online version of this publication, they could order the items by date and add additional notes as appropriate. Presenting the timeline to the department decision-maker on diversity issues could be the next step. Once approval is secured, assign staff and, when needed, secure budget funds to move forward with creating a more accessible and welcoming department.

Cited Web Resources

1. *projects.ncsu.edu/design/cud/about_ud/about_ud.htm*
2. *uw.edu/doit/universal-design-education-principles-and-applications*
3. *uw.edu/doit/cude*
4. *ada.gov/checkweb.htm*
5. *uw.edu/doit/what-are-some-hints-communicating-individuals-who-have-disabilities*
6. *uw.edu/doit/equal-access-universal-design-campus-services*
7. *w3.org/TR/WCAG20/*
8. *hepg.org/hep-home/books/creating-inclusive-learning-opportunities-in-highe*

About *AccessADVANCE*

AccessADVANCE services to increase the successful participation and advancement of women with disabilities in STEM faculty careers.

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