
1.2 Universal Design Education

2 Credits: Implement 2 of 3

- Workshops with project development team occur during more than one phase of design and/or construction (e.g., initiate, schematic design, design development, construction documents, etc.).
 - Expert in the field develops a universal design training program for designers and key stakeholders.
 - Designers and key stakeholders have access to universal design education materials.
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1. Overview

Building design and construction requires a combined effort of designers, architects, engineers, and consultants. Projects involve complex coordination between many design disciplines. General knowledge of each field can help a project manager effectively and efficiently lead a team to design and construct a building successfully. Experts in Universal Design are available to conduct building audits and drawing reviews throughout the design and construction process; however, such services are typically done on completed work, such as a set of drawings. This reactive process results in suggested changes to drawings or adjustments in the field.

A more efficient approach to incorporating Universal Design into a project is to educate the design team on the goals of Universal Design and some common strategies for making the built environment accessible to all people. A design team with an understanding of universal design can make universal design decisions intuitively, which can save time and money on reactive consultation from universal design experts. Such education can be provided by a variety of means depending on the desired results. A design firm could provide employees with online universal design courses, in-person expert seminars, or even this set of design resources, which describe and explain the intent behind the isUD solutions.

Many of the innovative solutions for Universal Design are intentionally not as prescriptive as building codes and standards, to allow more freedom for designers to develop their own unique solutions to design challenges. Educating team members early in the design process is important because, like all design work, universal design is an iterative process that should be revisited throughout the life of a project.

2. Issues to Consider

Scope of Work: Not all projects have the budget for universal design education. Although larger projects may have an adequate budget, smaller ones typically do not. However, design firms should educate staff so they have the knowledge to introduce universal design in all of their projects, not just the current one. This added skillset can also bolster team members' resumes, making them more marketable in the field.

Continuing Education: State architecture registration boards require all licensed architects to earn a number of learning units on a regular basis. This rule, which varies by state, aims to encourage architects to learn new skills and acquire new knowledge. The Center for Inclusive Design and Environmental Access (IDEA) offers several [online continuing education courses](#) about universal design which satisfy these continuing education requirements. Although the courses offer continuing education credit to architects, non-architects can take the courses as

well. These courses can serve as a starting point for educating design teams on universal design.

3. Referenced Standards

The **American Institute of Architects** provides resources for architects, including information on the various state requirements for continuing education: <https://www.aia.org/pages/2696-continuing-education-aia-and-state-requirement>

4. Measurement and Verification

[There are no measurements and verifications applicable to this section.]

5. Design Considerations

1. *Workshops with project development team occur during more than one phase of design and/or construction (e.g., initiate, schematic design, design development, construction documents, etc.).* For thorough implementation of Universal Design (UD), design teams should consider UD throughout the duration of a project. Ideally, teams should begin considering universal design from the very beginning of a project. The earlier that solutions are incorporated in a design, the greater their impact will be on the resulting building and its users.

The design process is iterative, so although universal design may be implemented during the early stages of design, projects must be reassessed regularly to ensure UD goals are still being met. Workshops* at multiple stages of the design process can help ensure a diverse range of UD solutions are incorporated in a project. While certain UD solutions may be possible to incorporate in the early stages of design, other solutions may need to wait until later stages. This emphasizes the need for multiple workshops at different stages. This way, as the design progresses and more opportunities for universal design present themselves, the designers can be sure those opportunities are not being wasted. The examples below illustrate how the Health and Wellness aspects of UD would likely be incorporated into a hospital project at each of the phases of development:

- Pre-design: A hospital design can include a diverse range of services, including mental health, physical therapy, and a spiritual center to accommodate long-term inhabitants that would otherwise have to visit several institutions for the same well-rounded care.
- Design (Schematic design and design development): Individual departments within the hospital can have their own outdoor spaces to improve visitor experiences and help speed up recovery rates.
- Final design (construction documents and specifications): Materials that result in a high R-value are specified, increasing the efficiency of the building's thermal controls and creating a comfortable environment for users.

- **Occupancy:** The hospital can provide incentives for employees to use the stairs and take alternative transportation.

*Refer to [isUD Solutions 1.1 Project Development Team](#) to understand more about how to conduct a workshop or charrette. There are companies that are able to consult an organization on how to conduct these types of processes.

2. *Expert in the field develops a universal design training program for designers and key stakeholders.* Some designers and stakeholders may be unaware of the concept of UD and its benefits. For universal design to be realized, there must be “buy-in” from every member of the design team, so each design decision made was made by someone thinking of universal design, .
3. *Designers and key stakeholders have access to universal design education materials.* One of the ways to implement Universal Design (UD) thoroughly in a project is to provide the design team and stakeholders access to UD education materials. Even though employees may go through a UD training program, they will not become overnight UD experts. Having handy reference materials and bookmarked online resources will enable designers to easily search for UD information and examples when they need it.

6. Definitions

The following definitions are adapted from Steinfeld and Maisel (2012).

Universal Design	Universal design is a process that enables and empowers a diverse population by improving human performance, health and wellness, and social participation.
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7. References

1. Steinfeld, Edward, Maisel, Jordana, & Lavine, Danise. (2012). *Universal Design: Creating Inclusive Environments*. Hoboken, New Jersey: John Wiley & Sons, Inc.