COURSE SYLLABUS
IDES 261

Universal Design

1. <u>Course Description</u> (3)

Focuses on the established principles of universal design by examining the benefits for people with differing abilities. Addresses the history of universal design, i.e., providing accessibility to diverse cultures, special populations, disabled, aging, and able-bodied populations.

Prerequisite: Basic Design 2 (IDES 117)

2. <u>Objectives</u>

Following successful completion of the course, the students will be able to:

- contrast a variety of cultural norms. **CIDA_4e_*Prog***
- identify multi-cultural differences related to universal design. *Examples could include opportunities to study abroad, cultural exchanges, or community-based projects that expose students to cultural and/or economic diversity.* **CIDA_4f_*Prog***
- explain theories related to the impact of the built environment on human experience, behavior, and performance. *Refers to systems thinking, biophilia, social interactions, cognition and perception, proxemic theories, inclusivity, diverse populations, and contextualizing human experience and behavior in environments.* **CIDA_7a_*Undr***
- apply human factors, ergonomics, inclusive, and universal design principles to design solutions. *Universal design refers broadly to "the design and composition of an environment so that it can be accessed, understood, and used to the greatest extent possible by all people regardless of their age, size, ability, or disability." Quote attributed to the Center for Excellence in Universal Design website. ADA and similar Canadian regulations are addressed in Standard 16. Inclusive design refers broadly to current social-political issues related to inclusion and considers various forms of human differences such as abilities, language, race, culture, gender, age, and neurodiversity. Design for inclusion addresses embodied equity within a range of solutions in the built environment versus one design solution that accommodates multiple users. Examples could include gender-neutral restrooms, non-gendered iconography and signage, acknowledgment of cultural identity, etc. Also see the Embodied Equity Standards Essay on the CIDA website (www.accredit-id.org) under Accreditation/Policies and Procedures, Standards/Professional Standards.* **CIDA_7e_*ApAb***
- apply wayfinding techniques to design solutions. **CIDA_7f_*ApAb***
- demonstrate a range of problem identification, idea generation, and problem-solving methods. *Examples could include common approaches associated with design thinking.* **CIDA_8j_*Prog***
- recall the origins and intent of laws, codes, and standards. *Resources could include the International Code Council, the U.S. Equal Employment Opportunity Commission, The Canadian Accessibility Standards Development Organization, and standards that are approved by the American National Standards Institute (ANSI) or International Standards Organization (ISO).* **CIDA_16a_*Awar***

- explain detection devices that alert occupants including smoke/heat and alarm systems. **CIDA_16d_*Undr***
- apply compartmentalization such as fire separation and smoke containment. **CIDA_16e_*Undr***
- apply federal, state/provincial, and local codes for barrier-free and accessibility regulations and guidelines. *Examples could include the International Building Code (IBC) and/or the National Building Code of Canada, American National Standard Institute, Americans with Disabilities Act, and provincial regulations*. **CIDA_16i_*ApAb***

3. Course Rationale

Based on industry standards provided by the Council for Interior Design Accreditation (CIDA), graduates of the program need to understand theories of human-centered design and identify, analyze, and apply information to design solutions. This course shows students how to make design accessible to people of varying abilities and cultures so they develop successful responses to user needs and promote health and well-being.

4. Course Format Lecture

5. Course Content

Theories and codes:
- theoretical impact of the built environment on human experience, behavior, and performance
- human factors, i.e., ergonomics, inclusive, and universal design principles as well as cultural differences.
- ergonomics
- Americans with Disabilities Act (ADA)
- Universal Design (UD), i.e., considerations for pregnancy, childbirth, and children through elderly, dementia, Alzheimer's, and aging in place
- origins and intent of laws, codes, and standards

Small projects or exercises:
- inclusive and universal design principles applied to design solutions
- problem identification and problem-solving methods
- wayfinding techniques
- state/provincial, and local codes, e.g., universal design, fire, and life safety used in a design scenario
- range of solutions in the built environment versus one design solution that universally accommodates multiple users, e.g., gender-neutral restrooms, non-gendered iconography and signage, cultural appropriation, etc.
- barrier-free and accessibility regulations and guidelines applied to a design scenario
- encourage students to enter a competition, e.g., Morton Kesten Universal Design Competition, etc.

6. Bibliography

Textbook None

Other Books

Goldsmith, S. & Prp Architects Firm. (2015). *Universal Design: A Manual of Practical Guidance For Architects.* Architectural Press.

Jani, V. (2011). *Diversity in Design: Perspectives from the Non-western World* (1st ed.). Fairchild.

Jordan, W. A. (2008). *Universal Design for the Home: Great Looking, Great Living Design for all Ages, Abilities, and Circumstances* (1st ed.). Quarry Books.

Null, R. (2017). *Universal Design Principles and Models*. Routledge Taylor and Francis Group.

Nussbaumer, L., (2012). *Inclusive Design: A Universal Need.* Fairchild.

Nussbaumer, L. L. (2018). *Human factors in the Built Environment* (2nd ed.). Fairchild Books, An imprint of Bloomsbury Publishing Inc.

Steinfeld, E., & Maisel, J. L. (2012). *Universal Design Creating Inclusive Environments* (1st ed.). John Wiley & Sons, Inc.

Winchip, S. M. (2010). *Visual Culture in the Built Environment: A Global Perspective* (1st ed.). Fairchild.

7. Methods of Evaluating Student Performance.

The students are evaluated by the instructor. Evaluation criteria and methods for determining course grades are distributed to students at the beginning of the semester.