CARLETON UNIVERSITY
School of Industrial Design

IDES 5500 ACCESSIBILITY AND INCLUSIVE DESIGN SEMINAR  Fall 2017

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Instructor Office Hours  by appointment
Course Time and Location  Lecture: Mondays 11:35-14:25 ME 4359
(NOTE: different location on Monday Nov.27 & Friday Dec. 8)

COURSE DESCRIPTION
This course provides foundational knowledge, exploring interdisciplinary approaches for incorporating accessible, inclusive, and human-centered design principles into the research, design, and development of products, information, and environments that can be used by all people, regardless of ability. The course will involve guest lecturers, including practitioners and persons with Disabilities (PwD). Students will work in interdisciplinary teams to investigate, document, and present case studies addressing current and evolving perspectives on disability and accessibility that are relevant to taking a lead in bringing accessibility to the forefront in the areas of engineering, ICT, and design.

LEARNING OUTCOMES
By the end of this course, students will be able to:

1. **Differentiate among inclusive and accessible design principles** for problem identification, ideation, and evaluation in the creation of products, services and/or environments to be used by the largest number of people, regardless of age, gender, or abilities.

2. **Recognize and develop empathy for the diversity and uniqueness of end-user needs**, including evolving motor, cognitive, and sensory capabilities.

3. **Understand a range of basic qualitative and quantitative human-centered design research and analysis processes**, such as in-situ ethnographic user studies and usability testing, for the design of inclusive and accessible design solutions or standards.

4. **Consider accessibility from multiple perspectives**, including technical, ethical, social, individual, and legislative.

5. **Use course resources skillfully to support critical opinions** about current and evolving perspectives on disability and accessibility that are relevant to taking a lead in bringing accessibility to the forefront in the areas of engineering, ICT, and design.

6. **Effectively communicate ideas** through visual, written, and oral presentations.

7. **Cooperate with interdisciplinary team members** in working through class exercises and assignments.

8. **Adopt professional/responsible behaviour**.
## COURSE SCHEDULE

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture/Activity</th>
<th>In-Class Sessions</th>
<th>Individual/Team Work</th>
<th>Readings for Class (for articles in Ares-go to Library Reserves folder on CULearn, then to Ares &amp; download) (Read before class &amp; come to class prepared for discussion)</th>
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</thead>
<tbody>
<tr>
<td>[4] Oct 2</td>
<td>The User Point of View Visitors: TBD</td>
<td>Inclusive Innovation</td>
<td>Readings Discussion Case Study Format &amp; Concept Generation</td>
<td>TBD: Possible readings for Field Trip Preparation</td>
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<td>Oct 9</td>
<td>No Class</td>
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<td>THANKSGIVING</td>
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<td>[5] Oct 16</td>
<td>Field Trip: Queens University</td>
<td>Site visit Meet Dr. Nicholas Graham &amp; Dr. Claire Davies, &amp; learn about their research &amp; labs.</td>
<td>Workshop Activity</td>
<td>TBD: Possible readings for Field Trip Preparation</td>
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<td>Oct 23</td>
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<td>FALL BREAK</td>
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<td>Date</td>
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<tr>
<td>Nov 6</td>
<td>Standards &amp; Legislation</td>
<td>Site visit Meet Dr. Ed Lemaire &amp; learn about his research lab</td>
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<td>Field Trip: Ottawa Hospital</td>
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<td>Rehabilitation Centre</td>
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<td>Accessibility for Ontarians</td>
<td>TDO: Possible readings for Field Trip</td>
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<td>with Disabilities Act (AODA)</td>
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<td>Nov 13</td>
<td>Assistive Technologies</td>
<td>Readings Discussion Plans for Symposium Assignment 2: Draft of individual Cases content due</td>
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<td>Visitors: Dr. Adrian Chan</td>
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<td>Dr. Mojtaba Ahmadi</td>
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<td>How &amp; Why do people adopt ICT</td>
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<td>products? A Preliminary Model</td>
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<td>based on literature Review</td>
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<td></td>
<td>in Designing around People p 127-136 (9)</td>
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<td>Design of a Task Oriented Haptic Gait Rehabilitation Robot. p. 1083-1091(9)</td>
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<td>Preliminary Experiments with an Omnidirectional Robotic System for Gait Rehabilitation. p. 247-262 (16)</td>
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<td>Nov 20</td>
<td>Vision Impairment</td>
<td>Readings Discussion &amp; Consultations</td>
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<td>Visitors: Dr. Audrey Girouard</td>
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<td>&amp; Others TBC</td>
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<td>Typhlex: Exploring Deformable Input for Blind Users Controlling a Mobile Screen Reader p. 2-9 (7.5)</td>
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<td>Designing Accessible Workspaces for Visually Impaired people p. 269-279 (9)</td>
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<td>Nov 27</td>
<td>READi Symposium</td>
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<td>Dec 4</td>
<td>Challenges &amp; Barriers</td>
<td>Readings Discussion &amp; Consultations</td>
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<td>Visitor: TBC</td>
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<td>Taken for Granted: Material Relations between Disability and Codes/Guidelines p. 1-11 (9.5)</td>
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<td>Investigating Accessibility to Achieve Inclusive Environments: The Spatial Experience of Disability at a University Precinct in Lisbon p. 93-103 (11)</td>
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<td>Dec 8</td>
<td>Final Review</td>
<td>No readings this week</td>
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Please Bring Laptops to Class

CULEARN
To access your courses on cuLearn go to [http://carleton.ca/culearn](http://carleton.ca/culearn). For help and support, go to [http://carleton.ca/culearn/students](http://carleton.ca/culearn/students). Any unresolved questions can be directed to Computing and Communication Services (CCS) by phone at 613-520-3700 or via email at ccs_service_desk@carleton.ca.
COURSE COMPLETION & COURSE EVALUATION INFORMATION

1. Assignment 1, Part 1: Team Reading Facilitation 15%
2. Assignment 1, Part 2: Individual Reading Notes & Provocations 15%
3. Assignment 2, Part 1: Team Case Study 30%
4. Assignment 2, Part 2: Individual Case Study 30%
5. Professionalism & Participation 10%

Assignment 1, Part 1: Course Reading Facilitation (in Teams)
Teams of 2 to 4 students will facilitate class discussions on designated weeks through dialogues, exercises, and comparisons/contrasts of the highlights of the weekly readings.
Part 2: Students will submit brief summaries of the required readings, as explained in the assignment document.

Assignment 2, Part 1: Team Case Study Interviews of Inclusive Design Leaders
Teams of 2 or 3 students will interview select Inclusive design leaders and develop online case studies in a specific thematic area
Part 2: Individual Students will investigate their “leader’s” projects and related work to develop individual project cases, as explained in the assignment document.

Professionalism and Participation
Individual students are expected to prepare for weekly classes by critically reading the papers for that class and engaging in related activities. For classes with readings students must come to class prepared to discuss the readings. For classes with visits and/or visitors, students should be prepared to ask questions and engage visitors in talking. Participation grades include regular class attendance and participation in the READi Symposium.

- Individual/Group Work
Courses may include various combinations of individual and group work. Students must demonstrate individual aptitude. It is important where collaborative work is undertaken that students be able to clearly demonstrate that individual contribution has been made. Where the evaluation for individual work is below a passing grade, that grade will be awarded for the course.

- Review Attendance
Attendance at scheduled SID reviews is mandatory. These are equivalent to exams in IDES courses when indicated in the course outline. Failure to attend will result in a grade of F. If you are not able to attend a review, you are required to call the General Office (613-520-5672) and/or send an email to id@carleton.ca to leave a message in advance. A comprehensive medical certificate or other documentation to substantiate the absence must be submitted as soon as possible after the review. The documentation must state the date of illness onset, the expected date of recovery, and the extent to which the student is incapacitated. The student is also required to set up a meeting with the instructor as soon as he or she is well enough to discuss and schedule an alternative date.

Any student in the review should submit materials for presentation and present as scheduled. In addition, a student who does not remain for the complete review session, who does not present as scheduled, or who arrives late for the review, without approval from the instructor, will receive a 10% grade reduction for that review.
• **Late Submission of Deliverables**

**Course Deliverables for reviews and other due dates**
All deliverables submitted late will accrue a 10% per day deduction from the determined grade, to a maximum of 3 days, from the original deadline time and date. Failure to submit within 3 days, without approval from the instructor, will result in a grade of F.

• **Participation and Professionalism**
Active participation and professional conduct will be evaluated. At the same time, when the student’s work is reviewed at the end of the course, an evaluation will be made based on one or more of the following: in class discussion; consultations with instructors; and work ethic. However, none of these evaluations will be used to raise an overall failing grade, to a passing one, based on the quality of the work.

**STUDENT CONSIDERATIONS AND RESPONSIBILITIES**

• **Academic Accommodation** (Equity Services)
You may need special arrangements to meet your academic obligations during the term. For an accommodation request the processes are as follows:
  - **Pregnancy obligation:** write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit: [http://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf](http://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf)
  - **Religious obligation:** write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details visit: [http://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf](http://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf)

**Academic Accommodations for Students with Disabilities:** The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your Letter of Accommodation at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). **Requests made within two weeks will be reviewed on a case-by-case basis.** After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website (www.carleton.ca/pmc) for the deadline to request accommodations for the formally-scheduled exam (if applicable).

• **Instructional Offenses / Plagiarism**
The regulations of the university require that we bring to your attention regulations on *Instructional Offenses*, descriptions of which can be found in the current *Academic Integrity Policy* available on the Student Affairs website. The policy governs the academic behavior of students. At the same time it seems that students do not always understand the meaning of plagiarism and how to avoid it.
• **Student Responsibility**  
The student is responsible for knowing the content of this course outline, the schedule of classes, assignments, and examinations; and material covered during any absence from scheduled classes.

• **Other Considerations**  
This course has co-located and remote class members, and will be using various technology platforms to work together. It will also involve a number of visits, within Carleton and in the greater community- even Kingston. You are encouraged to attend as it will be difficult to ensure remote attendance in some locales.

• **Changes to the Course Outline**  
The course outline may be subject to change in the event of extenuating circumstances.

**COURSE READING LIST**

Most of the course readings are available on the course CuLearn site in the top right hand corner in the box “Library Reserves” under the title “view course in Ares” at no expense to the students. Others are available to download from the Internet as noted on the course Reading List at the end of this outline.

Please note that Readings for each date are required for all and the optional readings are useful for the Reading Facilitators for that week.

**For September 18**


Optional:  


**For September 25**


Optional:


For October 2


Optional:


For October 16

TBD

For November 6

Accessibility for Ontarians with Disabilities Act (AODA) https://www.ontario.ca/page/accessibility-laws

Other: TBD

Optional:

Accessibility: Usability for All https://www.interaction-design.org/literature/article/accessibility-usability-for-all


Web Accessibility Laws & Policies  [https://www.w3.org/WAI/Policy/](https://www.w3.org/WAI/Policy/)

**For November 13**


Other: TBD

**Optional:**


**For November 20**


Other: TBD
For December 4


Optional:


Other Suggestions


Inclusive design Toolkit can be downloaded from: https://www-edc.eng.cam.ac.uk/downloads/idtoolkit.pdf


http://abilities.ca/

http://www.un.org/disabilities/

http://teitac.org/