Instructor: Anneliis Tosine, MASc, EIT
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Office Hours: Office hours are by appointment. Please email in advance.

Course Time and Location: Mondays 11:35-14:25 3328 ME

Course Description:
Design methodology and the value of scientific methods for data collection and decision-making. Techniques such as interviewing, focus groups, usability testing, brainstorming, and value analysis will be covered. Teamwork techniques and values are considered.

Learning Outcomes:
1. By the end of this course, students will be able to:
   1. Select and apply appropriate research methods to support an informed design process.
   2. Understand the differences between quantitative and qualitative research methods and apply both appropriately.
   3. Collect relevant data by developing and employing appropriate methods.
   4. Analyze and synthesize data to formulate insights using basic analytical methods common in design.
   5. Select and employ methods to support creative thinking and generate ideas from insights.
   6. Develop different types of media, concepts and/or prototypes to evaluate and refine ideas in order to support design development.
   7. Cooperate as an effective and collaborative team during the design process.
   8. Effectively communicate the rationale for the selected approach and research outcomes by developing artifacts such as reports and presentations.
   9. Value stakeholders’ input at all design stages.
   10. Adopt professional/responsible behaviour.

Required Materials:

Course Projects/Assignments:
Students are required to complete weekly exercises employing specific methods and tools discussed in class. There are three major deliverables. The projects are team-based with individual assigned roles within the team. Grades will be based on both individual and team performance.
Course Completion Requirements
Students are required to complete all assignments in order to pass the course.

Course Evaluation Information
Class participation and attendance* 5%
Deliverable 1: Preliminary Data Collection and Synthesis Report 25%
Deliverable 2: Refined Synthesis and Ideation Report and Presentation 30%
Deliverable 3: Final Report and Presentation 35%
Peer Evaluation 5%

Total 100%

*You are expected to attend and actively participate in class discussions and activities. This includes reading the assigned texts in advance of each class and sharing your ideas during class discussions and/or activities.

Course Schedule

<table>
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<th>Phases</th>
<th>Week</th>
<th>Class Topic and Activities</th>
<th>Deliverables</th>
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| Introduction and planning   | Sept. 10 | Product design research; introduction to user experience, user centered design and research themes and coordination  
Getting up to speed with readings and research theme |              |
| Studying context-of-use     | Sept. 17 | Forming a research plan; observation and context-of-use inquiry techniques; user interface considerations  
Apply context-of-use techniques. Document and memo. |              |
| Beginnings of synthesis     | Sept. 24 | Interviewing techniques and creating questionnaires; introduction to synthesis techniques  
Apply research techniques. Document and memo. |              |
| Communicating early         | Oct. 1 | Synthesis techniques  
Apply research techniques. Document and memo. Conduct first round of synthesize on prelim information collected. |              |
| understanding               | Oct. 8 | Thanksgiving |              |
| Evaluating your understanding and ideas with people | Oct. 15 | Synthesis techniques  
Apply research techniques. Continuing synthesizing data.  
Deliverable 1 Due: Preliminary data collection and synthesis report | Deliverable 1 |
| Communicating what you have learned: refining your understanding and ideas | Oct. 22 | In-class review of Deliverable 1 and synthesis techniques  
Explore your analysis through design activities to help you learn more about the subject. | Fall Break |
|                             | Oct. 29 | Ideation techniques  
Refine synthesis and develop 'design probes or stimuli’ to assist in communicating with people (participants). |              |
|                             | Nov. 5 | In-class presentations  
Deliverable 2 Due: Refined Synthesis and Ideation Report and Presentation | Deliverable 2 |
|                             | Nov. 12 |                                                                                      |              |
In-class review of Deliverable 2 and evaluation techniques
Evaluate your understanding and ideas with participants.
Develop a plan for the report and in-class presentation.

Evaluation techniques and reporting guidelines
Evaluate your understanding and ideas with participants.

In-class consultations on presentations and reports.

In-class presentations and peer review of Deliverable 3
Deliverable 3 Due: Final Report and Presentation

**Note: Grey boxes in the course schedule indicate the weeks dedicated to working with participants in the field. This will vary depending on the theme, research techniques being used and participant availability.**

**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**
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. Failure to hand in presentation deliverables at the specified time and to present as scheduled will also receive a 10% grade reduction.

**Participation and Professionalism**
Active participation and professional conduct are particularly important in industrial design courses and 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.

**Requests for Academic Accommodation**

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

**Pregnancy obligation**
Please contact your instructor 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 the Equity Services website: [carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf](carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf)

**Religious obligation**
Please contact your instructor 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 the Equity Services website: [carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf](carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf)

**Academic Accommodations for Students with Disabilities**
If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or pmc@carleton.ca for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made. [carleton.ca/pmc](carleton.ca/pmc)

**Survivors of Sexual Violence**
As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and is survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: [carleton.ca/sexual-violence-support](carleton.ca/sexual-violence-support)

**Accommodation for Student Activities**
Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor 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. [https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf](https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf)
For more information on academic accommodation, please contact the departmental administrator or visit: students.carleton.ca/course-outline

**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.

In industrial design, ideas and concepts come from a multitude of sources to be modified and utilized in the design and development process. The student should reference sources appropriately.

**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.

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