GENERAL COURSE INFORMATION AND SCHEDULING

Instructor: Chantal Trudel
Office Hours: Office hours are by appointment. Please email me in advance.
Office: 3476, Mackenzie Bldg. (ME)
(w) 613-520-2600 ext. 5626 (e) chantal.trudel@carleton.ca
Course Time and Location: Thursdays 11:35 am - 2:25 pm, MDes Studio 430 AP

Course Description
Critical analysis of research methods in design and disciplines contributing to design including anthropology, psychology, sociology, and business. Application areas include advanced materials and manufacturing processes, advanced visualization, product interaction design, extreme environments, sustainable design, design and culture, design management, and human-oriented design.

Course Objectives
The course is focused on the critical review of qualitative and quantitative research methods to support interdisciplinary design. Methods used by collaborators from the sciences and humanities as well as methods designers bring to interdisciplinary collaborations are introduced. Research for design, research through design and theoretical frameworks are discussed.

The intent is to help students develop research studies to improve their understanding of people in relation to the development and evaluation of products, interfaces, environments, services or systems. Understanding methods for collecting and analyzing data and the importance of experimental design and control are necessary to produce valid and meaningful results. Topics cover problem/opportunity identification and evaluation, considerations in planning studies, as well as methods for interpreting and presenting results.

Learning Outcomes
By the end of this course, students will be able to:
1. Critically review literature on research approaches or theoretical frameworks.
2. Identify and select appropriate qualitative and quantitative research methods.
3. Design and evaluate research methods and a methodology appropriate to a study’s objectives.
4. Plan a design research study.
5. Create an ethics application.
6. Effectively communicate a research approach and rationale through written, visual and oral mediums.
7. Demonstrate professional behaviour.
GENERAL COURSE CONTENT INFORMATION

Course Overview
This course consists of readings, lectures/discussion, in-class exercises and assignments. In the lectures, the principles of design research and basic research methods are reviewed. Group discussion and teamwork help students engage more critically with the material. Active participation in the discussions is highly recommended and attendance in all classes is required.

COURSE INFORMATION AND SCHEDULING

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<td>S13</td>
<td>Discourse in Design Research</td>
<td>1 Introduction to statistics and experimental design</td>
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<td>Approaches to Support Design Goals</td>
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<td>Wk4</td>
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<td>Common Research Methods from the Science and Humanities</td>
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<td>Wk5</td>
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<td>Interactive/Creative Research Tools</td>
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October 22-26 Fall Break – No Classes

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<td>Value of Theoretical Frameworks</td>
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<td>Wk12</td>
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<td>Peer Discussion on Mock Research Study Designs</td>
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<td>Wk13</td>
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<td>Term Review/Discussion</td>
<td>Deliverable: Statistics Workbook &amp; Questions</td>
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<td>Take-Home: Mock Research Proposal Report</td>
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Required Materials
Please refer to cuLearn for the weekly reading list. Most materials can be found on Ares, the Carleton Library or on-line (as noted in cuLearn). Recent editions of the books below can be bought at the Carleton Bookstore and are highly recommended to support your work in this course and other graduate work related to Design Research Methods. See Ares on cuLearn for e-books and/or previous editions of these books.


COURSE COMPLETION AND EVALUATION INFORMATION

Course Assignments and Evaluation
Please refer to cuLearn for more detailed information on the assignments.

- Comparative Reader Reports 45% (3 x 15%)
- Statistics Workbook Hand-In and Questions 15%
- Mock Research Proposal Presentation and Report 40% (10% Presentation / 30% Report)

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 are particularly important in studio 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.

Student Access to Quiz, Test, and Exam Papers
Examinations are for evaluation purposes only and will not be returned to the student.

5. STUDENT CONSIDERATIONS AND RESPONSIBILITIES

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](mailto: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

**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

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.