

CARLETON UNIVERSITY  
SCHOOL OF INDUSTRIAL DESIGN

**COURSE OUTLINE IDES 2205 • SENSORY ASPECTS OF DESIGN FOR USER  
EXPERIENCE • Fall (2022)**

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**Instructor:** Carla Ayukawa

Location: Minto Centre 3040

Office Hours: Mondays 15:00- 16:00 in MC3040 or by Zoom

**Teaching Assistant: Yi Luo**

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Office Hours: TBD

**Course Time and Location:** Thursday, 8:35-11:25. Location: UC282

**Course Description**

An exploration of multi-sensory qualities derived from and designed into products to optimize product-interaction experiences. Visual, tactile, auditory, and other related sensory aspects of design and design principles that contribute to the product multi-sensory characteristics while adding meaning and emotional value.

Includes: Experiential Learning Activity.

Precludes additional credit for IDES 2203 (no longer offered).

Prerequisite(s): IDES 1001 or permission of the School of Industrial Design.

Lectures and tutorials three hours a week.

**Learning Outcomes**

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

1. Differentiate between the sensory qualities that contribute to people's interactions with products.

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2. Analyze how sensory attributes are integrated into designed products.
3. Explain a variety of sensory experiences derived from products.
4. Evaluate (qualitatively) the sensory design factors that may contribute to meanings and emotional responses derived from products.
5. Conduct multi-sensory observations of interactions between people and products in contexts of use.
6. Analyze the multi-sensory experiences with a product with respect to human-object interactions.
7. Use course resources to support opinions about how sensory features enhance experiences between people, the products they use, and the contexts of use.
8. Effectively communicate ideas through visual, written, and oral presentations.
9. Cooperate with team members in working through class exercises and assignments.
10. Adopt professional/responsible behaviour.

### **Course Deliverables**

These are the deliverables for this course. Please see 'Appendix A Course Schedule' for more detailed information about submission dates.

**Individual Assignment 1 – *Bon Voyage!*** Three submissions: Deliverable 1 has two parts. Part A is 5% and Part B is 10%. Deliverable 2 is one part. It is 20%. The total equals **35%** of overall course grade.

**Group Assignment 1 – *Out of Doors Adventure!*** – Two submissions. Part A is 5% and Part B is 15%. The total equals **20%** of overall course grade.

**Group Assignment 2 – *In-Motion!*** – One submission that is **35%** of overall course grade.

***My Journal Reflections*** – Six submissions. The five highest marks for the submissions will contribute to **25%** of overall course grade.

### **Student Access to Quiz, Test and Exam Papers**

Examinations are for evaluation purposes only and will not be returned to the student.

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## **Required Materials**

Materials required for the course are listed below, on Appendix A, and in each assignment handouts. You may be asked by your instructor to refer to Brightspace for a more comprehensive list of required materials.

Individual Assignment 1 – Two to three small travel products

Group Assignment 1 – Two to three small camping and outdoor gear products

Group Assignment 2 – Two to three 'Kinetic/Collapsible' products

All products to be in working condition (can complete the task they have been designed to perform). More details are outlined in the assignments.

## **Computer Requirements**

Please refer to the computer requirements on the School of Industrial Design Website. You may be asked by your instructor to refer to Brightspace for other information or requirements related to computer work.

<http://www.id.carleton.ca/undergraduate/about-the-bid-program/computer-requirements>

## **Individual/Group Work**

Courses may include individual and group work. It is important in collaborative work that students clearly demonstrate their individual contribution.

## **Review/Presentation Attendance**

Attendance at scheduled SID Reviews/Presentations is mandatory. These are equivalent to exams when indicated in the course outline. Failure to attend the Review/Presentation without reasonable cause, will result in a grade of F. Students arriving late for the Review/Presentation or not remaining for the complete session without approval from the instructor, will be addressed on a case-by-case basis at the discretion of the instructor.

If you are not able to attend a Review/Presentation, foresee arriving late or need to leave before it is complete, please email your instructor in advance explaining the reason for the situation. It is important that you provide a reasonable rationale for your absence, late arrival or early departure. In the event of an

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illness or death in the family, you will be required to sign a form verifying your claim and this form is available through the SID administration office.

### **Late Submission of Lecture & Studio Deliverables**

In this class, some assignment deliverables have firm deadlines that can't change and for which there can be no extensions. Some assignment deliverables are eligible for penalty-free and no-question-asked extensions. Each student has a bank of 6 "grace-days" that can be used for extensions/late submissions on qualified deliverables. The following is a list of assignments that qualify for grace-days:

#### *My Journal Reflections – #1 to #6*

The Group and Individual Assignments are ineligible for grace-days.

Once a student uses all 6 grace-days, any assignment that would normally be eligible for grace-days reverts to the late submission policy. Special consideration may be given if you are dealing with a medical or similar issue for which you can provide documentation.

Grace-days are measured in 24-hour units that start at 11:59pm on the due date. For example, if a journal reflection is due on Wednesday at 11:59pm and the student submits the reflection on Thursday at 2am, that is considered 1 grace day. All assignments MUST be submitted via the Brightspace dropbox. Students are responsible for properly pressing "submit" and taking into consideration internet access limitations.

Last Submission - For the Group and Individual Assignments and when all 6 grace-days are used for *My Journal Reflections*, students who do not hand in deliverables on time will have their grade reduced by 10% each day (including weekends) up to a maximum of 3 days.

### **Participation and Professionalism**

Active participation and professional conduct (e.g. class discussion, consultations with instructors, work ethic, etc.) are important in lecture and studio courses and may be formally evaluated by a grade. Professionalism also includes Carleton's Policy on Academic Integrity described in more detail below with links to content which you are required to review.

### **Academic Integrity**

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Carleton's Policy on Academic Integrity is available at: <https://carleton.ca/registrar/academic-integrity/> and covers the following topics:

*Plagiarism* (e.g. submitting work in whole or in part by someone else, failing to acknowledge sources through the use of proper citations when using another's work).

*Test and Exam Rules* (e.g. attempting to read another student's exam paper, speaking to another student even if the subject matter is irrelevant to the text, using material not authorized by the examiner).

*Other Violations* (e.g. improper access to confidential information, disruption in classroom activities, misrepresentation of facts for any academic purpose).

This policy governs the academic behavior of students. In industrial design, ideas and concepts come from a multitude of sources and may be modified and utilized in the design and development process. The student should reference such sources appropriately and it is strongly advised that you read Carleton's Policy on Academic Integrity prior to conducting any work at the University.

### **Requests for Academic Accommodation**

You may require special arrangements to meet your academic obligations during the term. For an accommodation request for any of the following topics below, refer to the link provided for more information: <https://students.carleton.ca/course-outline/>

- *Parental Leave*
- *Religious/Spiritual Obligation*
- *Academic Accommodations for Students with Disabilities*
- *Survivors of Sexual Violence*
- *Accommodations for Student Activities*

### **Student Responsibility**

The student is responsible for knowing the content of this course outline; the schedule of classes, assignments, and/or Reviews; and the material that was covered when absent. The studio is a professional environment and students should be working during the scheduled hours.

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Unless otherwise arranged, the class will meet during scheduled class hours. Please note that attendance is important since issues and questions may be raised in class, and announcements made, along with information disseminated through Brightspace. As external professionals are often involved in our work, scheduling changes for guest lectures, presentations, and Reviews may occur at short notice, requiring students to stay informed.

### **Changes to the Course Outline**

The course outline may be subject to change in the event of extenuating circumstances.

## Appendix A - Course Schedule

Date	Lecture	In-class activities and Materials required by student	Group Assignments	Individual Assignments
Sept 8 [W1]	Introduction to Sensory Aspects of Design  Course Outline Review	Bring laptop, Post-it notes  <i>Sensory Design Research</i> activity  Introduction to Group Assignment 1 <i>Out of Doors Adventure!</i>  Introduction to Individual Assignment 1 <i>My Journal Reflection</i>		
Sept 14				<b>Submit My Journal Reflection #1</b> via Brightspace for assessment.
Sept 15 [W2]	Design for Emotion and Semantics	Bring laptop  Bring 3 product options for <i>Out of Doors Adventure!</i>  Introduction to Individual Assignment 1 <i>Bon Voyage!</i>	Plan Product Evaluation activity	
Sept 21				<b>Submit My Journal Reflection #2</b> via Brightspace for assessment.
Sept 22 [W3]	Design and Visual Composition	Bring <i>Out of Doors Adventure!</i> products to class.  Bring 3 product options for <i>Bon Voyage!</i>	Conduct Product Evaluation	<b>Email</b> link to your MIRO board.
Sept 26			<b>Submit</b> a visual communication of analysis (Poster) via Brightspace by end of day for assessment.	
Sept 29 [W4]	Design and Visual Detailing	Bring <i>Out of Doors Adventure!</i> products to class.	Present your Product Placements exercise to the instructor/TA for review (optional).	
Oct 5				<b>Submit My Journal Reflection #3</b> via Brightspace for assessment.
Oct 6 [W5]	Design for Colour Perception	Device to access internet  Bring <i>Out of Doors Adventure!</i> products to class.	Synthesis, Organize, and Prepare for sharing your results	<b>Post</b> Deliverables 1 Part A for <i>Bon Voyage!</i> and <b>submit</b> screenshot via Brightspace for assessment.
Oct 12				<b>Submit My Journal Reflection #4</b> via Brightspace for assessment.
Oct 13 [W6]	Design for Tactile Experience	Bring <i>Out of Doors Adventure!</i> products to class.	<b>Present</b> in-class <i>Out of Doors Adventure!</i> for assessment  <b>Submit</b> presentation slide deck via Brightspace by end of the day.	

			<b>Submit</b> Peer Evaluation via Brightspace.	
Oct 20 (W7)		Introduction to Group Assignment 2 <i>In Motion!</i>		
Oct 24	Fall Reading Week			
Nov 3 [W8]	Design for Taste and Smell Experiences	Bring 3 product options for <i>In Motion!</i> Develop Research Plan for <i>In Motion!</i>	Plan Observational research Submit Research Plan for approval.	
Nov 9				<b>Submit My Journal Reflection #5</b> via Brightspace for assessment.
Nov 10 [W9]	Design for Auditory Experiences Guest Lecturer	Device to access internet Bring <i>Bon Voyage!</i> products to class		<b>Post</b> Deliverables 1 Part B for <i>Bon Voyage!</i> and <b>submit</b> screenshot via Brightspace for assessment.
Nov 16				<b>Submit My Journal Reflection #6</b> via Brightspace for assessment.
Nov 17 [W10]	Design for Multi-Modal Experiences Guest Lecturer	Multi-Modal Experience lecture activity Device to review videos Post-it notes, Sharpies Bring <i>In Motion!</i> products to class.	Analyze data	
Nov 24 [W11]	No lecture planned. All students must attend presentations	<i>Bon Voyage!</i> Presentations. Bring <i>Bon Voyage!</i> products to class. Bring <i>In Motion!</i> products to class.	Synthesize results	<b>Present <i>Bon Voyage!</i></b> in class for assessment. <b>ALL students to submit</b> PDF of presentation for <i>Bon Voyage!</i> by end of day via Brightspace.
Dec 1 [W12]	No lecture planned. All students must attend presentations	<i>Bon Voyage!</i> presentations. Bring <i>Bon Voyage!</i> products to class if you have yet to present. Bring <i>In Motion!</i> products to class.	Work on product limitations and sensorial Improvements	<b>Present <i>Bon Voyage!</i></b> in class for assessment.
Dec 8 [W13]	No lecture planned. All students must attend presentations	<i>In Motion!</i> Presentations Bring <i>In Motion!</i> products to class.	<b>Present <i>In Motion!</i></b> for assessment. <b>Submit</b> slide deck via Brightspace for assessment.	<b>Post</b> Deliverables 2 for <i>Bon Voyage!</i> and <b>submit</b> screenshot via Brightspace for assessment.