

**COURSE OUTLINE IDES 2205A • SENSORY ASPECTS OF DESIGN FOR USER
EXPERIENCE • FALL(2021)**

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Location: remote

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Time and Location: Please refer to Carleton Central under Student Services – Registration – Search Schedule: https://central.carleton.ca/prod/bwysched.p_select_term?wsea_code=EXT

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.

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.

Individual Assignment	(x2 submissions – A 15% / B 20%each)	35%
Team Assignments	(x2 assignments – 20% each)	40%
Reflective Assignments	(x 6 assignments – 5% each)	25%

Student Access to Quiz, Test and Exam Papers

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

Required Materials

Materials required for the course are listed below. You may be asked by your instructor to refer to Brightspace for a more comprehensive list of required materials.

Computer (complete with camera and microphone) / WIFI access / ... in order to attend remote class lectures and collaborate with others in activities and group work also on a remote platform.

Small products for individual and group projects. To be specified by instructor in class.

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 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

Students who do not hand in deliverables on time will have their earned grade reduced by 10% per day 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

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.

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

See IDES 2205 Appendix A F21 – Course Schedule.

IDES 2205

COURSE SCHEDULE

Fall 2021

Course Time and Location Lecture: Mondays 11:35-14:25, Remote

Date	Lecture/Activity	In-Class /On-Line Working Sessions	Team Assignment	Individual Assignment	Readings (Go to the Library Reserves Folder on CU Learn, then to Ares & download article) (Review before NEXT class)
[1] Sept 13	Introduction - Sensory Aspects of Design	Sense-it Activity	Introduce team assignment 1– Out-of-Doors Adventure! – Sensory Product Evaluation -Team formation	Introduce Individual assignment - My Journal Reflections	Desmet & Hekkert: <i>Framework of Product Experience</i> + Jordan: <i>The Personalities of Products (Reflection #1)</i>
[2] Sept 20	Design for Emotion & Semantics	CU-Portfolio session	Out-of-Doors Adventure! Team assignment 1 - Product approval (MIRO) & plan for evaluations	Introduce individual product assignment – Prep it! Individual Comparative Product Analysis Reflection #1(A &B) Submission	
[3] Sept 27	Design and Visual Composition	Sense-it Activity	Product Evaluations - Out-of-Doors Adventure! On-Line Assessments	Prep it! Individual assignment - Product approval (MIRO) & plan for evaluation	Coates: <i>Objective Concinnity (Reflection #2)</i>
[4] Oct 4	Design and Visual Detailing	Team assignment – Working session	Analysis, Synthesis & Organization Out-of-Doors Adventure!	Reflection #2 Submission	Morris: <i>Purpose & Power of Color</i> + Clay: <i>Chapter 4- Colour-in Book, Beautiful Thing: an Introduction to design (Reflection #3)</i>
[5] Oct 11	Statutory holiday, no scheduled class		Content organization & final review Out-of-Doors Adventure!	Reflection #3 (A &B) Submission	

[6] Oct 18	Design and Colour Perception	Sense-it Activity	Team assignment 1 – Out-of-Doors Adventure! Submission + Video Presentations Introduce team assignment 2– In Motion! -Team formation		Sonneveld, Schifferstein: <i>The Tactual Experience of objects (Reflection #4)</i>
Oct 25	FALL BREAK – NO CLASS - Oct 25 -29				
[7] Nov 3	Design for Tactile Experience		Teams confirm product choice (MIRO) & plan for evaluations In Motion!	Reflection #4 Submission Comparative product analysis – Prep it! Individual assignment - Final Review	
[8] Nov 8	Design for Taste & Smell Experience	Sense-it Activity	Preliminary analysis & synthesis In Motion!	Post #1 & #2 on CU Portfolio Prep it!Submission 1	Özcan, Elf & Van Egmond, René, <i>Product Sound Design: An Inter-Disciplinary Approach? (Reflection #5)</i>
[9] Nov 15	Design for Auditory Experience Guest lecturer (L.L.)	Sense-it Activity	Analysis, Synthesis & Organization In Motion!	Reflection #5 Submission	Ludden et All.: <i>Surprising the Senses</i> + Fenko et All.: <i>Which senses dominate at different stages of product experience? (Reflection #6)</i>
[10] Nov 22	Design for Multi-Modal Experiences Guest lecturer (L.F.)	Sense-it Activity	Synthesis & content organization In Motion! (cont.)	Reflection #6 (A &B) Submission	
[11] Nov 29	Working Class Team Assignment - In-Motion Individual Assignment - Gadgets & Tools	Working platform / Reviews / Crits	Finalize content organization & Final review In Motion!		
[12] Dec 6	Presentations-Team Assignment 2 – In Motion!		Team assignment 2– In Motion! Submission	Individual assignment Prep it! - Final review	Prabhakar, P., Jung, H., & Daiello, V. <i>Sensory Reflection towards Product Design Ideation</i>

[13] Dec 10	Individual Assignment – Prep-It! Comparative Product Analysis Presentation Videos			Individual Assignment - Post #3 + Video - CU Portfolio Prep it! Submission 2	
NOTE	Week 13 is transferred from the Monday to the previous Friday to compensate for the start of the semester- hence, 2 classes on the last week of the semester.				

Course Assignments

Individual Assignment: Individual students will analyze, compare, contrast and document aspects of multi-sensory product design, as per assignment details.

Team Assignments: Student teams will conduct multi-sensory analysis of products and users' responses to & experiences with specific products and present their findings to the class, as described in each Team Assignment.

Reflections: There will be a range of reflections (journaling pieces) to periodically evaluate comprehension of the course material and readings.

Course Evaluation Information

Individual Assignment (x2 submissions – A- 15% / B 20% each)	35%
Team Assignments (x2 assignments – 20% each)	40%
Reflections	25%

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

Course Reading List - **UPDATE IF NECESSARY**

Coates, Del (2003). Chapter 9: **Objective Concinnity** (p.191-217). In: *Watches Tell More than Time*. New York: McGraw-Hill.

Clay, Robert (2009). Chapter 4: **Colour** (p. 137- 152). In: *Beautiful Thing: an introduction to design*. Oxford, UK: Berg. [not required but useful for basic colour theory]

Desmet, Pieter and Paul Hekkert (2007). **Framework of Product Experience**. In: *International Journal of Design* vol 1 no. 1. P. 57- 66. (The 10 page-pdf of this article can be downloaded from: <http://www.ijdesign.org/ojs/index.php/IJDesign/issue/view/1>)

Fenko, Anna, Schifferstein, Hendrik N.J., and Hekkert, Paul. (2009). **Which Senses dominate at different stages of product experience?** In: *Proceedings of Undisciplined! Design Research Society Conference at Sheffield Hallam University, Sheffield UK*. (The 12 page-pdf of this article can be downloaded from: <http://shura.shu.ac.uk/466/>)

Jordan, Patrick (2002) **The Personalities of Products** (p.19-47). In: Green, William S. and Jordan, Patrick (Eds.). *Pleasure with Products: Beyond Usability*. New York: Taylor & Francis.

Ludden, Geke D.s.,Schfferstein, Henrik N.J, Hekkert, Paul. (2007). **Surprising the Senses**. *Sense & society*, Vol 2 no. 3 P. 353-360.

Morris, Jason. 2006. **The Purpose and Power of Color in Industrial Design: Encouraging the Meaningful Use of Color in Design Education.** In: Proceedings of the IDSA National Education Conference in Austin Texas. (The 7 page-pdf for this article can be found and downloaded from: <http://www.idsa.org/purpose-and-power-color-industrial-design>)

Özcan, Elif and van Egmond, René (2008) **Product Sound Design: An Inter-Disciplinary Approach?** In: Proceedings of Undisciplined! Design Research Society Conference 2008, Sheffield Hallam University, Sheffield UK, 16-19 July 2008. (The 11 page- pdf for this article can be found and downloaded from: <http://shura.shu.ac.uk/531/>)

Prabhakar, P., Jung, H., & Daiello, V. (2017). **Sensory Reflection towards Product Design Ideation.** IASDR 2017, Cincinnati, Ohio. University of Cincinnati.

Schifferstein, Hendrik N.J., and Hekkert, Paul. (2008). Chapter 2: **The Tactual Experience of Objects** (p. 41-66). In Product Experience. Toronto: Elsevier Ltd.

Other Reference Sources

Grinyer, Clive. (2001). **Smart Design: Products that Change our Lives.** Crans-Pres-Céligny, Switzerland: RotoVision.

Haller, Lynn, Cullen, Cheryl Dangel. (2004). **Design Secrets: Products 2- 50 Real Life Projects Uncovered.** Gloucester, Mass.: Rockport.

Industrial Designers Society of America. (2001). **Design Secrets: Products: 50 Real-Life Projects Uncovered.** Gloucester, Mass.: Rockport.

Lidwell, William and Manasca, Gerry. (2009). **Deconstructing Product Design: Exploring the Form, Function, Usability, Sustainability, and Commercial Success of 100 Amazing Products.** Beverly, Mass.: Rockport.

Schifferstein, Hendrik N.J., Hekkert, Paul. (2009). **Product Experience.** Oxford: Elsevier