CARLETON UNIVERSITY SCHOOL OF INDUSTRIAL DESIGN

COURSE OUTLINE IDES 4001A • INDUSTRIAL DESIGN SEMINAR • Fall (2023)

Instructor: WonJoon Chung wonjoonchung@cunet.carleton.ca Office Location: 3481 Mackenzie Office Hours: By appointment

Course Time and Location:

Course locations are no longer displayed on the public class schedule and are subject to change. For the latest information please refer to Carleton Central under Student Services – Registration – Student Timetable.

Course Description

Topics vary yearly and address key contemporary industrial design issues. There is a focus on writing, discussion, and debate. Students organize a seminar with design professionals and other community experts including student and professional presentations, interaction, and discussion. Prerequisite(s): IDES 3302 or permission of the School of Industrial Design. Seminar three hours a week.

Learning Outcomes

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

- 1. Demonstrate ability to research contemporary design issues.
- 2. Apply critical thinking skills.
- 3. Discuss and debate theoretical and critical design perspectives with classmates and community experts.
- 4. Apply course resources to support the opinions expressed.
- 5. Effectively communicate ideas through written work and/or oral presentations.
- 6. Cooperate with team members in working through class exercises, assignments, and seminar logistics.
- 7. Organize, participate in, and produce a seminar with design professionals and other community experts.
- 8. Design and produce some form of published record or proceedings document.

Objective:

The objective of this Seminar course is to engage students in exploring and deliberating upon theoretical facets of industrial design. During these seminars, students will actively participate in group discussions, express their viewpoints through group presentations, develop group and individual reports, and also present them in the final design seminar.

Theme of the 2023 Industrial Design Seminar: "Industrial Design in the era of 4th Industrial Revolution"

What role does industrial design play in the era of the Fourth Industrial Revolution? In the 1990s, design fields such as product design, graphic design, fashion design, interior design, and landscape design, etc. had clear boundaries. University departments for various design disciplines were distinctly categorized, and graduates pursued careers as designers in their chosen fields. Moving to different fields or domains was often difficult or nearly impossible due to these well-defined boundaries. The current era of the Fourth Industrial Revolution is evolving into a hyper-connected age through the convergence of various advanced technologies such as AI, VR, AR, MR, IoT, big data, and robotics, and so on. Moreover, diverse fields like humanities, culture, and sustainability are converging, leading to the simultaneous creation of various technologies and the rapid establishment of their ecosystems. With the establishment of this new ecosystem, the role of industrial design is also changing. In this seminar, students will discuss what we can expect ID to be in the imminent future. Based on this, each team needs to generate a subtopic, and each student in a team will then refine the subtopic to create their individual working title.

Examples of possible subtopics;

- **1.** *Digital Transformation*: The integration of digital technologies, such as IoT (Internet of Things), AI (Artificial Intelligence), and smart manufacturing, was reshaping the industrial design landscape.
- 2. Sustainability and Eco-Friendly Design: As environmental concerns continued to grow, discussions around creating products with reduced environmental impact, using sustainable materials, and designing for recyclability were gaining significant attention.
- **3.** *Design for Aging Population*: As the global population continued to age, designing products that cater to the needs and preferences of older adults was a point of focus.
- **4.** Augmented Reality (AR) and Virtual Reality (VR): The potential of AR and VR technologies in industrial design, from concept visualization to user testing, was being explored.
- **5.** *Healthcare and Wellness Design*: With a growing emphasis on health and well-being, the design of medical devices, healthcare environments, and wellness products was becoming a significant topic.
- 6. *3D Printing and Additive Manufacturing:* The advancement of 3D printing and additive manufacturing technologies was impacting how designers conceptualized and created prototypes and final products.

7. *Ethical Design and Inclusivity:* Designing products that respect diverse cultures, backgrounds, and abilities were gaining prominence.

These are just examples, so feel free to consider other topics as well.

Course Format:

- The first class includes an introduction to the course and learning outcomes. This will be followed by a discussion of the topic/context, and the range of sub-topics students may choose from. Students will participate in the development of sub-topics and will arrive at individual areas of interest within the prescribed areas.
- Founded on individual research and interest, in the first weeks, students will form teams of four, based on a set of shared features or attributes to develop a paper for presentation to the class.
- Each team submits a team report detailing the rationale behind their choice of a sub-topic. It also includes three distinct research questions that the team intends to address. The report also describes a comprehensive discussion outlining the specific areas within the sub-topic that each individual student will be focusing on. (WEEK 3 & 4)
- To gain a brief understanding of cultural design and experience effective design critique technique, a collaborative cultural design project with Kookmin University in South Korea will be undertaken. Further details will be provided later.
- The course will end with a public event, where student papers will be presented and discussed with the guests. The content of the presentations and the final report will be organized into a final publication. It is expected that students will be actively involved in the organization of the public event and the final publication.
- Other than discussing the seminar topic, the instructor (WonJoon) will introduce some design theories and principles that are relevant to the industrial design practice.
- While general sources will be presented to the class, students will be expected to find additional sources of information relevant to their chosen sub-topics. At the same time there will be a focus on time management, in order to allow the greatest success and most rewarding experience within the time limits of the course, and with respect to the many academic and other obligations that students are balancing.

The Final Seminar Event:

The final seminar event is scheduled for Wednesday, <u>December 6, 2023</u>, at a location that will be specified later—either on campus or off-campus. Rehearsals for the final seminar are set for November 29, a week prior to the event. In order to accommodate invited guests including alumni, scholars,

designers, and fellow students, the final seminar will commence in the evening at 6 pm. During the event, light refreshments and beverages will be provided.

Organization of Seminar (5%):

The proper organization of the seminar will require the joint efforts of all students. Multiple committees will be responsible for a range of logistical tasks, which include preparing reception and the seminar room, welcoming, registering, and accommodating participants and guests, as well as taking care of refreshments and other related responsibilities.

Publication of the Seminar Proceedings:

The final group reports from each team will be compiled and published in a seminar proceeding later. The instructor will edit the texts of proceedings and prepare it for publication.

Individual Progress Reports (20%):

To foster increased participation, students are mandated to produce an individual report, Progress Report, that illustrates their involvement in both the investigations and discussions pertaining to their selected topic. These reports should comprehensively capture the student's contributions, engagement, and individual perspectives related to the subject matter at hand. The instructor will advise students with regard to the report's content and format. This progress report is due on November 21, 2023 at 11:59 PM

Course Deliverables

Outlined below are the deliverables for this course. For a more comprehensive breakdown of the schedule and specific details, please refer to 'Appendix A: Course Schedule'

Evaluation information

Interim Group Presentation	05% (Due by Oct. 11)
Cultural Design Critique:	05% (Due by Nov.01)
Individual Progress Report:	20% (Due by Nov.22)
Seminar Event Presentation:	20% (Due by Dec.06)
Individual Final Report:	30% (Due by Dec.8)
Peer evaluation	10%
Organization of seminar event	05% (Agenda, invitations, guest lists, etc.)
Professionalism	05% (Attendance, participation and contribution in workflow, etc.)
Total	100%

Student Access to Quiz, Test and Exam Papers

Examinations will be returned to students with comments and explanations.

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.

Recommended Readings

- Clayton M.C and Michael E. R (2003), *Why hard-nosed executives should care about management theory*, Harvard Business Review. Sep;81(9):66-74, 132.
- Paul H and Nazh C, (2015), Handle with care! Why and how designers make use of product metaphors, Design studies (40): 196-217
- Spencer B, *Being critical of the critique in industrial design education: A qualitative study*, N.C state University.
- Sharon Helmer Poggenpohl (2018), *Design Theory to Go, Connecting 24 brief theories to practice.* Estes park, Colorado, Ligature Press
- Jon Kolko (2011), Exposing the magic of design. Oxford University Press.

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: <u>https://carleton.ca/registrar/academic-integrity/</u> 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: <u>https://students.carleton.ca/course-outline/</u>

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.

WK & Date	Topics	Class activity	Homework
Wk1 (Sept.6)	Introduction	Introduce to the course & deliverable.Brainstorming for subtopics	Forming a team (4) Develop Subtopics
Wk2 (Sept.13)	Discuss possible team subtopic and individual topic.	 Team discussion for individual subtopic and research questions. 	Literature study through library search, web searching to read relevant information.
Wk3 (Sept.20)	Team Meeting I	• Team meeting with instructor (The 1 st half)	Team Report
Wk4 (Sept.27)	Team Meeting II	Team meeting with instructor (The 2nd half)	Team Report
Wk5 (Oct.4)	About Design Critique	Introduce the cultural design critique	Preparation of Interim Group Presentation
Wk6 (Oct.11)	Guest Reviewer (TBD)	Interim Group Presentation (5%)	
WK7 (Oct.18)	Group Ideation Workshop	Random Ideation workshop	The cultural design review
Oct.25	Fall Break	University closed	
Wk8 (Nov.1)	Cultural design critique	Present the cultural design critique	Cultural Design Critique (5%)

Wk9 (Nov.8)	Metaphor in design	• Each group brings forward their curiosities and questions concerning their topics in discussions in class.	
Wk10 (Nov.15)	Consultation	Team Meeting with WJ	Write an Individual Progress Report
Wk11 (Nov.22)	Rehearsal	 Rehearsal of the Seminar event Presentation <u>Individual Progress Report due by Nov. 21</u> (20%) 	Final report Final presentation
Wk12 (Nov.29)	Learning through Failure	Lecture and discussion	Final presentation
Wk13 (Dec.6)	Seminar Event Presentation (20%)		Individual Final report (30%) *

*The Individual Final Report (30%) will be due by 8pm on Dec. 8th