CARLETON UNIVERSITY SCHOOL OF INDUSTRIAL DESIGN

COURSE OUTLINE IDES 1000A • THEORY AND HISTORY OF DESIGN • Fall (2023)

Instructor: Alisdair MacRae

alisdair.macrae@carleton.ca

Office Hours: Please email the Teaching Assistant for all course-related questions and email the instructor for more personal issues.

Teaching Assistant: Yi Lou

YiLuo5@cmail.carleton.ca

Office Hours: TBD

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

The theoretical and historical background of industrial design and design; disciplinary foundations and interdisciplinary connections; methodological aspects and economic and social contexts; contemporary scenarios in design; technological innovation and manufacturing processes.

Also listed as ARCH 2006. Lectures three hours a week.

Learning Outcomes

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

 Compare and contrast professional definitions of industrial design and identify professional organizations nationally and internationally

- 2. Identify historical events associated with the development of the industrial design profession from the 18th to 21st century.
- 3. Describe typical work responsibilities of an industrial designer.
- 4. Describe the steps associated with the design process, including: research, concepts, manufacturing and sales.
- 5. Apply creativity methods in a group setting including mind maps and brainstorming.
- 6. Name common plastic, wood and metal materials and be familiar with their primary properties.
- 7. Describe mass production processes in plastic, metal, fabric and wood.
- 8. Describe interdisciplinary connections with social sciences, engineering and business.
- 9. Describe the evolving nature of design by outlining contemporary issues in design.
- 10. Acquire theoretical skills, critical attitudes, and design thinking.
- 11. Understand better the challenges and advantages to teamwork and the need to develop interpersonal communication skills for teamwork.
- 12. Demonstrate improvement in presentation and graphic skills, and make group presentations of knowledge gained.

Course Deliverables

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

Course Projects/Assignments/Exams

There is one group project for the term. Students will be randomly pre-assigned into groups of 5 students. The group project includes group activities and is focused on applying design principles introduced in the class. The main deliverable for the group project is a written report and in-class presentation about how products have evolved over time as a result of design

Course Evaluation Information

Test (10%, 10%, 10%)

30% (online using Brightspace)

Group Project 35% (Division of Labour, Draft of Writing, List of Sources, 5%,

Final Written Report and Online Presentation, 27%, Peer

Evaluation, 3%)

Final Exam 35% (During Exam Period in December)

Readings

Online readings are assigned on Brightspace under ARES link to the Carleton Library. Note that the readings are listed in 'Appendix A Course Schedule'. They have been scanned and made available to you for free.

Assignments and Final Report

Assignments are assigned during the term that can be worked on during classroom time. These must be submitted on time to be given a grade, particularly as they are completed as a group.

In Class Tests

Three term tests will be done in class through Brightspace. The student is not allowed to complete these outside the scheduled time provided except through special accommodation. There are no make-up tests offered except with a valid reason and adequate documentation. A student who misses a test or a large portion of the class for valid reason and with adequate documentation will have their final grade calculated by increasing the value of other tests, final exam or group project.

Participation and Professionalism

Active participation and professional conduct are particularly important in this class as there are readings and group activities as well as tests that require your attention to the class every week.

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.

Some simple materials may be required as part of in-class exercises and students will be notified what to have available. Zoom software may be used as part of the class to participate in synchronous discussions, and, if necessary, can be downloaded here – https://zoom.us/. The Brightspace student support site contains information and tutorials for students related to most functions in Brightspace.

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 contributions.

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 that 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/

- 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, please review the Student Guide to
 Academic Accommodation (PDF, 2.1 MB) For accommodation regarding a formally-scheduled
 final exam, you must complete the Pregnancy Accommodation Form (click here).
- Religious/Spiritual 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, please review the <u>Student Guide to</u>
 Academic Accommodation (PDF, 2.1 MB)
- Academic Accommodations for Students with Disabilities: The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and

vision. 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. For more details, visit the Paul Menton Centre website.

- 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 where 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 the Equity and Inclusive Communities
 website.
- Accommodations 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. For more details, see the Senate Policy on Accommodation for Student Activities (PDF, 25KB).
- The Use of Self-Declaration Forms: In place of a doctor's note or medical certificate, students
 may complete the <u>self-declaration form</u> available on the Registrar's Office website to request
 academic accommodation for missed course work including tests and assignments. Students are
 also encouraged to connect directly with their instructors to discuss required accommodations
 arising from the COVID-19 situation.

Statement on Student Mental Health

As a university student, you may experience a range of mental health challenges that significantly impact your academic success and overall well-being. If you need help, please speak to someone. There are numerous resources available both on- and off-campus to support you. Here is a list that may be helpful: **Emergency Resources (on and off campus):** https://carleton.ca/health/emergencies-and-crisis/emergency-numbers/

Carleton Resources:

• Mental Health and well-being: https://carleton.ca/wellness/

• Health & Counselling Services: https://carleton.ca/health/

Paul Menton Centre: https://carleton.ca/pmc/

- Academic Advising Centre (AAC): https://carleton.ca/academicadvising/
- Centre for Student Academic Support (CSAS): https://carleton.ca/csas/
- Equity & Inclusivity Communities: https://carleton.ca/equity/

Off-Campus Resources:

- Distress Centre of Ottawa and Region: (613) 238-3311 or TEXT: 343-306-5550, https://www.dcottawa.on.ca/
- Mental Health Crisis Service: (613) 722-6914, 1-866-996-0991, http://www.crisisline.ca/
- Empower Me: 1-844-741-6389, https://students.carleton.ca/services/empower-me-counselling-services/
- Good2Talk: 1-866-925-5454, https://good2talk.ca/
- The Walk-In Counselling Clinic: https://walkincounselling.com

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

| | First Half of Class (Theory and Profession) | Second Half of Class (History and Depth) |
|--------|--|--|
| Week 1 | Course Introduction | ARES: Movie "Objectified" |
| Sep. 8 | Course Outline is reviewed, Group Assignment reviewed, students are assigned to groups | |
| | (check Brightspace) | |

| Week 2 | A: What is Industrial Design? / Materials of | B: Human Made Artefacts, A Historical |
|---------|--|---|
| Sep. 15 | Manufacture | Perspective |
| | ARES: Week 2 Readings (The Context of | ARES: Week 2 Readings (The Context of Industrial |
| | Industrial Product Design, Gilles, pg. 61-73) | Product Design, Gilles pg. 7-22) |
| | Group project is distributed and groups are released | |
| | Work on Group Project, Brainstorming, using | Mindmaps. Google Meet, MS Teams, Zoom or |
| | Miro may be used outside of class (Due 22 Se | eptember) |
| Week 3 | A: Manufacturing Processes | B: The Start of The Industrial Revolution |
| Sep. 22 | ARES: Week 3 Readings (The Context of | Entrepreneurial Efforts in Britain 1750-1790 |
| | Industrial Product Design, Gilles pg. 31-45) | ARES: Week 3 Readings (History of Modern Design, |
| | | Second Edition, Raizman pg.31-36) |
| | Test 0: This test is a practice test worth 0% | to check functionality and participation, Group |
| | Project First Deliverable Due – Mind Map | |
| Week 4 | A: Manufacturing Processes | B: Industrial Revolution in Britain and North |
| Sep. 29 | ARES: Week 4 Readings (The Context of | America |
| | Industrial Product Design, Gilles, pg. 46-59) | Mechanization & Design 1830-1914 |
| | | ARES: Week 4 Readings (Design In Context, |
| | | Sparke, pg. 37-56) |
| | Work on Group Project, Second Deliverable - | Division of Labour, Draft of Writing, List of |
| | Sources (Due 20 October) | |
| Week 5 | A: Stages of Design 1-2: | B: Arts and Crafts and Art Nouveau, |
| Oct. 06 | Research, Brief and Specification | ARES: Week 5 Readings (A History of Design from |
| | ARES: Week 5 Readings (Product Design, | the Victorian Era to the Present: A Survey of the |
| | Rodgers and Milton, pg. 55-76) | Modern Style in Architecture, Interior Design, |
| | | |

| | | Industrial Design, Graphic Design, and | |
|---------|---|---|--|
| | | Photography, Ferebee, pg. 63-92) | |
| | | | |
| | | | |
| | Test 1: All Readings Week 2-4 + Lecture Material | | |
| Week 6 | A: Stages of Design 3: | B: The Bauhaus and De Stijl | |
| Oct. 13 | Concentual Design | ARES: Week 6 Readings (Design: History, Theory, | |
| Oct. 13 | Conceptual Design | | |
| | | and Practice of Product Design, Bürdek, pg. 25-41 | |
| | | OPTIONAL: Design In Context Second Edition, | |
| | | Sparke, pg. 127-153) | |
| | Work on Group Project, Second Deliverable – Division of Labour, Draft of Writing, List of | | |
| | Sources (Due 20 October) | | |
| | | | |
| | | | |
| Week 7 | A: Stages of Design 4 and 5: Detailed | B: American Streamlining, Art Deco 1930s- | |
| Oct. 20 | Design: How Sketching and Drawing is | 1940s | |
| | used in Design | ARES: Week 7 Readings (History of Modern Design | |
| | Professor: Tim Haats | Second Edition, Raizman, pg. 240-242, Art Deco: A | |
| | Troicessor. Tim ridges | Mode of Mobility, Windover, pg. 18-35) | |
| | | Prode of Problinty, Williadver, pg. 18-33) | |
| | | | |
| | Work on Group Project, meet with Teaching | Assistant in person or using Zoom (concerns, | |
| | progress review); Second Deliverable Due, Division of Labour, Draft of Writing, List of | | |
| | Sources | | |
| | | | |
| Week 8 | Fall Break | | |
| Oct. 27 | Week-long break from October 23 to 27, 2023. No classes will take place during this time | | |
| Week 9 | A: Stages of Design 4 and 5: Preliminary | B: Modernism after WWII (1950s-1960s) | |
| Nov. 03 | Design: Prototyping and Testing | ARES: Week 9 Readings (Design In Canada Since | |
| | | 1945: Fifty Years from Teakettles to Task Chairs | |
| | | 1373. They reals from reactures to rask challs | |

| | ADEC, Wook 7 Dondings (Protety in a and | First Edition Catlish and Caldan as 20 42 |
|---------|--|---|
| | ARES: Week 7 Readings (Prototyping and | First Edition, Gotlieb and Golden, pg. 36-43, |
| | Modelmaking for Product Design, Hallgrimsson, | History of Modern Design Second Edition, Raizman, |
| | Chapter 2: How Prototypes Are Used, pg. 20- | pg. 260-291) |
| | 38) | Professor: Michael Windover and Bjarki |
| | | Hallgrimsson |
| | | |
| | | |
| | Hand back, give feedback on Second Delivera | able – Division of Labour, Draft of Writing, List |
| | of Sources | |
| | Test 2: All Readings Week 5-7 + Lecture Mat | erial |
| Week 10 | A: American Design and Style Trends 1925- | B: Postmodernism and Memphis (1980s) |
| Nov. 10 | 2015 | ARES: Week 10 Readings (Design In Canada Since |
| | ARES: Week 10 Readings (The Presence of | 1945: Fifty Years from Teakettles to Task Chairs |
| | Products: A Question of Perspective, Gilles, pg. | Second Edition, Gotlieb and Golden, pg. 44-55, |
| | 5-8, American Design and Style Trends, | History of Modern Design First Edition, Raizman pg. |
| | Inspirations from the Past, Kawanari, pg. 18- | 353-360) |
| | 21) | |
| | | |
| | Work on Group Project, Redesign Class Exerc | cise |
| Week 11 | A: Human Centered Design and Design | B: The Digital Age 1995-Present |
| N. 47 | Thinking | ADEC W 1 44 D 15 (2) |
| Nov. 17 | | ARES: Week 11 Readings (Design: The Whole |
| | ARES: Week 11 Readings (Design Thinking: | Story, Wilhide, pg. 475-493) |
| | Driving Transformation, Connor, pg. 1-18) | |
| | Professor: Chantal Trudel | |
| | Work on Group Project | |
| Week 12 | A: Marketing and Selling and The | B: Sustainability, Accessibility, Health and |
| WEEK 12 | | |
| | Emergence of Fields of Design: (2000+) | Well Being, Social Innovation |
| | | |

| Nov. 24 | ARES: Week 12 Readings (Design for Extreme | ARES: Week 12 Readings (History of Modern | |
|---------|---|---|--|
| | Poverty and Disability, Hallgrimsson, pg. 1-8 | Design First Edition, Raizman, pg. 363-374) | |
| | | | |
| | Work on Group Project | | |
| | Work on Group Project | | |
| | Test 3: All Readings Week 9-11 + Lecture Material, Course Review for Examination and | | |
| | Project Presentation Instructions | | |
| Week 13 | Group Project: Final project presentations during-class and hand-in written report in | | |
| Dec. 01 | Brightspace | | |
| | | | |