# CARLETON UNIVERSITY SCHOOL OF INDUSTRIAL DESIGN

## COURSE OUTLINE IDES 1000A • THEORY AND HISTORY OF DESIGN • Fall (2024)

Instructor: Alisdair MacRae

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Location: Southam Hall 416

Office Hours: Please email the Teaching Assistant for all course-related

questions and email the instructor for more personal issues.

Teaching Assistant: Richard Sinnasamy-Sandanam

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#### **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. Architecture students completing the ID Minor should register in ARCH 2006. Lectures three hours a week.

# **Learning Outcomes**

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

- 1. 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 5-6 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 of how products have evolved over time as a result of design.

#### **Course Evaluation Information**

Weekly Reading Post:

3% (1 post over the course of 11 weeks for discussion in class)

Tests (7%, 10%, 10%): 27% (online using Brightspace)

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

5%, Final Written Report and Class 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. Each student will make one brief post (maximum 50 words) to their group's discussion board area in Brightspace related to the week's readings that will be discussed in class.

#### **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 quiz 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 and 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.

#### **Technology Requirements**

Please refer to the technology 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 coursework.

https://carleton.ca/id/student-info/computer-it-support/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 instructor's discretion.

If you are unable 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.

# **Late Submission of Assignments**

Students who do not hand in assignments on time will have their earned grade reduced by 10% per day at the instructor's discretion. If you foresee not meeting the submission due date and are requesting an extension, please provide your instructor with a minimum of 24 hours' notice.

#### **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.

# **Health and Safety**

Students must participate in training to access all the SID Labs and Maker Space. Apart from this training, students are required to follow the health and safety standards of the School of Industrial Design as well as Carleton's health and safety standards. All materials related to SID health and safety are available here <a href="Health and Safety">Health and Safety</a> and it is expected that students review and understand these materials and apply these standards throughout their studies.

#### **Use of Studio Spaces**

Access to studio space to attend courses and complete assignments is an important part of student success. To support access, specific studios have been designated to certain years and/or sections.

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1st Year Studio Section A – Studio A
1st Year Studio Section B – Studio B
2nd Year Studio Section A – Studio A
2nd Year Studio Section B – Studio B
3rd Year Studio Section A & B – Studio C
4th Year Studio All Sections (Capstone and Minor) – Studio D
MDes Studio – MDes Studio
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Students are welcome and encouraged to use their designated spaces to work during non-studio hours. Out of respect for your colleagues, instructors, and Carleton cleaning staff, ensure you leave the space in good condition. This includes cleaning your area and storing your items in your designated storage space. The School will not be responsible for items that are not stored properly.

## **Academic Integrity**

Carleton's Policy on Academic Integrity is available at: <a href="https://carleton.ca/registrar/academic-integrity/">https://carleton.ca/registrar/academic-integrity/</a> and covers the following violations, but is not limited to:

- Plagiarism
  - Submitting work written 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

- Attempting to read another student's exam paper
- Speaking to another student (even if the subject matter is irrelevant to text)
- Using material not authorized by the examiner

#### Other Violations

- Improper access to confidential information such as exams or test questions
- Disruption of classroom activities or periods of instruction
- o 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 before conducting any work at the University.

#### Use of Artificial Intelligence (AI) Technologies

To effectively address the incorporation of AI technologies, specifically generative AI tools, into courses, we have instituted the following guidelines. Further information can be found here - <a href="https://carleton.ca/tls/teachingresources/generative-artificial-intelligence/recommendations-and-guidelines/">https://carleton.ca/tls/teachingresources/generative-artificial-intelligence/recommendations-and-guidelines/</a>. Another useful resource is the Library's guide on AI tools - <a href="https://library.carleton.ca/guides/subject/artificial-intelligence-ai-tools">https://library.carleton.ca/guides/subject/artificial-intelligence-ai-tools</a>.

- 1. Academic Integrity Standards: In the absence of explicit permission from the instructor within a given course, the use of generative AI tools to create content, (e.g., text, code, images, summaries, videos, etc.), is deemed a breach of academic integrity standards.
- Instructor's Discretion: Instructors have the authority to grant permission for the use of generative AI
  tools, (e.g., ChatGPT and similar tools), based on alignment with the course's educational objectives
  and learning outcomes. Assignment and examination guidelines will be written to explicitly reflect this
  granted permission.
- 3. Clear Instructions: Should instructors choose to permit the use of generative AI tools, an assessment guideline will provide students with clear and detailed direction, including;
  - i. Identification of specific generative AI tools that are acceptable for use.
  - ii. Clarity on the approved applications of these tools.

These measures aim to create a balanced and transparent educational environment, ensuring both academic integrity and the responsible integration of AI technologies into the learning experience.

# **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 below topics, refer to this link - <a href="https://students.carleton.ca/course-outline/">https://students.carleton.ca/course-outline/</a> and open the needed section.

# Topics:

- Pregnancy Obligations
- Religious/Spiritual Obligation
- Academic Accommodations for Students with Disabilities
- Survivors of Sexual Violence
- Accommodations for Student Activities
- Academic Considerations for Medical and Other Extenuating Circumstances
- Scheduling and Examination Support

#### 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, refer to this link - <a href="https://wellness.carleton.ca/">https://wellness.carleton.ca/</a> and open the needed section.

## Topics:

- Counselling
- Resource Guide
  - o Thriving on Campus
  - o Everyday Stress
  - Mild Mental Health Concerns
  - Moderate Mental Health Concerns

- o Complex Mental Health Concerns
- Umbrella Project

## **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, or valuable information may be shared, all of which can greatly benefit the student's learning experience. As external professionals may be 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. 06	Course Outline is reviewed, Group Assignment reviewed, students are assigned to groups	
	(check Brightspace)	
	Groups for group project and weekly reading posts are released	
Week 2	A: What is Industrial Design? / Materials of	B: Human Made Artefacts, A Historical
Sep. 13	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	Professor: Paul Thibadeau

	Work on Group Project, Brainstorming, using	g Mindmaps. Google Meet, MS Teams, Zoom or
	Miro may be used outside of class (Due 20 September)	
Week 3	A: Manufacturing Processes	B: The Start of The Industrial Revolution
Sep. 20	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. 27	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 18 October)	
Week 5	A: Stages of Design 1-2:	B: Arts and Crafts and Art Nouveau,
Oct. 04	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
		Industrial Design, Graphic Design, and
		Photography, Ferebee, pg. 63-92)
	Test 1: All Readings Week 2-4 + Lecture Mat	Photography, Ferebee, pg. 63-92)
Week 6	Test 1: All Readings Week 2-4 + Lecture Mai A: Stages of Design 3:	Photography, Ferebee, pg. 63-92)
<b>Week 6</b> Oct. 11	-	Photography, Ferebee, pg. 63-92)

		OPTIONAL: Design In Context Second Edition,	
		Sparke, pg. 127-153)	
	Week as Course Project Coursed Delivership	Division of Labour Due to at Whiting List of	
		- Division of Labour, Draft of Writing, List of	
	Sources (Due 18 October)		
Week 7	A: Stages of Design 4 and 5: Preliminary	B: American Streamlining, Art Deco 1930s-	
Oct. 18	Design: How Sketching and Drawing is	1940s	
	used in Design	ARES: Week 7 Readings (History of Modern Design	
		Second Edition, Raizman, pg. 240-242, Art Deco: A	
		Mode of Mobility, Windover, pg. 18-35)	
	Work on Group Project, meet with Teaching	Assistant in person or using Zoom (concerns,	
	progress review); Second Deliverable Due, D	Division of Labour, Draft of Writing, List of	
	Sources		
Week 8	Fall Break		
Oct. 25	Week-long break from October 21 to 25, 202	24. No classes will take place during this time	
Week 9	A: Stages of Design 4 and 5: Detailed	B: Modernism after WWII (1950s-1960s)	
Nov. 01	Design: Prototyping and Testing	ARES: Week 9 Readings (Design In Canada Since	
	ARES: Week 9 Readings (Prototyping and	1945: Fifty Years from Teakettles to Task Chairs	
	Modelmaking for Product Design, Hallgrimsson,	First Edition, Gotlieb and Golden, pg. 36-43,	
	Chapter 2: How Prototypes Are Used, pg. 20-	History of Modern Design Second Edition, Raizman,	
	38)	pg. 260-291)	
	Hand back, give feedback on Second Deliverable – Division of Labour, Draft of Writing, List		
	Hand back, give feedback on Second Deliver	able – Division of Labour, Draft of Writing, List	
	Hand back, give feedback on Second Deliver of Sources	able – Division of Labour, Draft of Writing, List	

Week 10	A: American Design and Style Trends 1925-	B: Postmodernism and Memphis (1980s)
	2015	1250 11 1 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1
Nov. 08		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
Nov. 15	Thinking	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 (TBD)	
	Work on Group Project	
Week 12	Work on Group Project  A: Marketing and Selling	B: The Emergence of Fields of Design:
		B: The Emergence of Fields of Design: (2000+): Sustainability, Accessibility, Health
Week 12 Nov. 22		
		(2000+): Sustainability, Accessibility, Health
		(2000+): Sustainability, Accessibility, Health and Well Being, Social Innovation
		(2000+): Sustainability, Accessibility, Health and Well Being, Social Innovation  ARES: Week 12 Readings (IDSA 2013 EDUCATION
		(2000+): Sustainability, Accessibility, Health and Well Being, Social Innovation  ARES: Week 12 Readings (IDSA 2013 EDUCATION SYMPOSIUM, Design for Extreme Poverty and
	A: Marketing and Selling	(2000+): Sustainability, Accessibility, Health and Well Being, Social Innovation  ARES: Week 12 Readings (IDSA 2013 EDUCATION SYMPOSIUM, Design for Extreme Poverty and Disability, Hallgrimsson, pg. 1-8, History of Modern
	A: Marketing and Selling  Work on Group Project	(2000+): Sustainability, Accessibility, Health and Well Being, Social Innovation  ARES: Week 12 Readings (IDSA 2013 EDUCATION SYMPOSIUM, Design for Extreme Poverty and Disability, Hallgrimsson, pg. 1-8, History of Modern Design First Edition, Raizman, pg. 363-374)
	A: Marketing and Selling  Work on Group Project  Test 3: All Readings Week 9-11 + Lecture Ma	(2000+): Sustainability, Accessibility, Health and Well Being, Social Innovation  ARES: Week 12 Readings (IDSA 2013 EDUCATION SYMPOSIUM, Design for Extreme Poverty and Disability, Hallgrimsson, pg. 1-8, History of Modern Design First Edition, Raizman, pg. 363-374)
	A: Marketing and Selling  Work on Group Project	(2000+): Sustainability, Accessibility, Health and Well Being, Social Innovation  ARES: Week 12 Readings (IDSA 2013 EDUCATION SYMPOSIUM, Design for Extreme Poverty and Disability, Hallgrimsson, pg. 1-8, History of Modern Design First Edition, Raizman, pg. 363-374)
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Nov. 22	A: Marketing and Selling  Work on Group Project  Test 3: All Readings Week 9-11 + Lecture Ma	(2000+): Sustainability, Accessibility, Health and Well Being, Social Innovation  ARES: Week 12 Readings (IDSA 2013 EDUCATION SYMPOSIUM, Design for Extreme Poverty and Disability, Hallgrimsson, pg. 1-8, History of Modern Design First Edition, Raizman, pg. 363-374)