

**COURSE OUTLINE IDES 4001A • INDUSTRIAL DESIGN SEMINAR • Fall (2024)**

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Location: **2496 ME**  
  
Office Hours: **By appointment**

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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**

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. Please review Appendix A for more details.

Prerequisite(s): IDES 3302 or permission of the School of Industrial Design.  
Seminar three hours a week.

**Course Overview**

In today's growing data-driven world, the ability to understand and leverage data is essential for all types of designers—whether they specialize in industrial design, interaction design, strategic design, or any other design sub-discipline. Data-driven design represents a shift from making design decisions based on intuition or personal preference to basing these decisions on concrete data. This approach enables

designers to create more informed, effective, and user-centered solutions. Data provides crucial insights that help designers bridge the gap between user expectations and the solutions they create, fostering innovation and enhancing the overall quality of life.

From the user's perspective, data is an integral part of daily life, often operating in the background without conscious awareness. The data collected from and about us significantly influences how we interact with others, make decisions, and navigate our environments. It shapes our social relationships, healthcare choices, dietary habits, and even our travel plans. As data becomes more omnipresent and its influence grows, the challenge for both designers and users is not only to harness its potential but also to ensure that data-driven interactions empower individuals rather than overwhelm them.

## **Course Focus**

This course, *Designing with Data: From Big to Small Data and Beyond*, addresses the complex role of data in shaping decisions across various levels of society. Data has long been a powerful tool for guiding institutions, governments, and companies toward strategic decisions—whether it's optimizing resource allocation, enhancing operational efficiency, or defining public policy. These entities rely on data to inform strategies that can influence large-scale behaviours, such as encouraging energy conservation, improving public health outcomes, or targeting economic development initiatives.

However, beyond its institutional applications, data holds significant potential for empowering individuals. This course aims to discuss the implications created when shifting from large-scale data-driven decisions to how data can be harnessed at a personal level, providing individuals with actionable insights that enable them to make informed, autonomous decisions. Rather than simply extracting data from users for institutional benefit, this seminar highlights the importance of returning data to users in meaningful ways. By doing so, designers can create tools and systems that help people take control of their behaviours, health, and daily decisions, ultimately leading to more empowered and impactful lives.

## **Course Topics and Structure**

This course examines the dynamic intersection of personal data and design, with a strong focus on the implications of data-driven practices on daily life, ethics, and design methodologies. To navigate this, the students will explore four interrelated topics:

1. **Big Data vs. Small Data:** The ongoing debate between the utility and impact of large-scale data versus more personalized, small-scale data.
2. **The Quantified Self Movement:** The rise of self-tracking and personal data collection as a means of self-improvement and behaviour modification.

3. The Advent of Personal Informatics: The development and implementation of systems that help individuals collect, reflect on, and use their own data.
4. Data Delivery Methods: How data is presented to users, including visualization and data physicalization techniques, to ensure it is accessible, understandable, and actionable.

## **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.

## **Course Deliverables**

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

### **Assignment 1: Initial Understanding**

Due Date: October 8th

Weight: 5%

Description: Group report summarizing initial findings on Topic 1, following a standardized structure.

Word Limit: 2,000 words

APA

### **Assignment 2: Reflection on Data-Driven Design**

Due Date: October 29th

Weight: 10%

Description: Individual reflection on the role of data in design, taking a personal position on the topic.

Word Limit: 2,000 words

APA

### Assignment 3: Individual Reflective Report on Self-Data Collection

Due Date: November 19th

Weight: 20%

Description: Report on the experience of self-data collection, analyzing data and reflecting on the quantified self.

Word Limit: 2,500 words

APA

### Assignment 4: Final Reflective Report

Due Date: December 4th

Weight: 30%

Description: Comprehensive report synthesizing self-data collection experience, course learnings, and future implications.

Word Limit: 4,000 words

APA

### Assignment 5: Seminar Special Event Presentation

Due Date: December 7th

Weight: 20%

Description: Group presentation at the seminar event, covering final findings on all topics.

Presentation Length: 10 minutes

### Professionalism – Ground rules

Weight: 15%

Description: Assessment of participation in class activities, teamwork, and contributions to discussions.

Please, refer to the “Professionalism” section, down below

## **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.

There isn't a specific list of materials for this course, as it depends largely on the preparation and implementation of student-led activities. While a basic bibliography will be provided, students are encouraged to research and gather relevant articles that will be used throughout the course.

### **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. Please note that attendance will be registered for each session. Unjustified missing sessions will affect the overall grade.

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. arriving on time, attendance, using laptops only for legitimate class activities, preparedness, not leaving the class early without okaying it with the instructor in advance, class discussion, consultations with instructors, work ethic, etc.) are important in lecture and studio courses and may be formally evaluated by a grade. Please note that attendance will be submitted on Brightspace. Unjustified absences will affect the overall 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 [Health and Safety](#) 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.

1<sup>st</sup> Year Studio Section A – Studio A

1<sup>st</sup> Year Studio Section B – Studio B

2<sup>nd</sup> Year Studio Section A – Studio A

2<sup>nd</sup> Year Studio Section B – Studio B

3<sup>rd</sup> Year Studio Section A & B – Studio C

4<sup>th</sup> Year Studio All Sections (Capstone and Minor) – Studio D

MDes Studio – MDes Studio

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: <https://carleton.ca/registrar/academic-integrity/> 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*
  - *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 - <https://carleton.ca/tls/teachingresources/generative-artificial-intelligence/recommendations-and-guidelines/>. Another useful resource is the Library's guide on AI tools - <https://library.carleton.ca/guides/subject/artificial-intelligence-ai-tools>.

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.
2. 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 - <https://students.carleton.ca/course-outline/> 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 - <https://wellness.carleton.ca/> and open the needed section.



**Topics:**

- *Counselling*
- *Resource Guide*
  - *Thriving on Campus*
  - *Everyday Stress*
  - *Mild Mental Health Concerns*
  - *Moderate Mental Health Concerns*
  - *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 – Refer to the Course Guidelines document for details

WEEK	DATE	TOPIC	ACTIVITY	DELIVERABLE
1	04-Sep	Introduction	Introduction to the course & topics	
2	11-Sep	Big Data vs. Small Data	Session 1: Exploration	
3	18-Sep		Session 2: Analysis and Synthesis	
4	25-Sep		Session 3: Delivery and Presentation	
5	02-Oct	The Quantified Self Movement	Session 1: Exploration	
6	09-Oct		Session 2: Analysis and Synthesis	Group report Due Date: October 8th at 11:59 pm Weight: 5% of the total grade Word Limit: 2,000 words APA format
7	16-Oct		Session 3: Delivery and Presentation	
	23-Oct		<b>FALL BREAK</b>	
8	30-Oct	The Advent of Personal Informatics	Session 1: Exploration	Group report Due Date: October 29th at 11:59 pm Weight: 10% of the total grade Word Limit: 2,000 words APA format
9	06-Nov		Session 2: Analysis and Synthesis	
10	13-Nov		Session 3: Delivery and Presentation	
11	20-Nov	Data Delivery Methods	Session 1: Literature Exploration and Analysis	Individual report Due Date: November 19th at 11:59 pm Weight: 20% of the total grade Word Limit: 2,500 words APA format
12	27-Nov		Session 2: Delivery and Presentation.	
13	04-Dec		Final Seminar Event Preparation	Individual report Due Date: December 4th at 11:59 pm Weight: 30% of the total grade Word Limit: 2,000 words APA guidelines
	Saturday Dec 07th		Final Seminar Event	Group presentation Due Date: December 7th Weight: 20% of the total grade