CARLETON UNIVERSITY SCHOOL OF INDUSTRIAL DESIGN

COURSE OUTLINE IDES 2300 • PROJECTS IIA • Fall (2023)

Instructor:

Stephen Field

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Location: 3476ME

Office Hours: During studio/lecture hours or by appointment

Teaching Assistant:

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Office Hours: During studio/lecture hours or 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

Principles of design sketching used in the industrial design process. Topics include: sketching as a tool for problem definition; idea exploration and form development; rendering techniques and the communication of design concepts; basic physical prototyping and modeling-making techniques.

Includes: Experiential Learning Activity.

Prerequisite(s): IDES 1001 and IDES 1301, or permission of the School of Industrial Design. Studio and lectures six hours a week.

Learning Outcomes

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

- Describe theoretical foundations behind industrial design sketching conventions such as perspective, foreshortening, light and shade, orthographic projection, ground figure relationships, viewpoint and orientation, intentional ambiguity, material indication and design annotations.
- 2. Apply and continue to develop mastery in the above.
- 3. Apply ideation and critical thinking simultaneously within the design process in the form of competent sketching.
- 4. Explore formal issues regarding composition and proportion through explorative hand sketching and model making in low fidelity materials simultaneously as tools to facilitate iterative design process to develop multiple design alternatives.
- 5. Implement contextual information (e.g., people and environment) through hand sketching and digital images to discover and convey design direction.
- 6. Execute the importing of analog sketches into a digital format to further develop designs.
- 7. Understand professional terminology regarding sketch and drawing conventions.
- 8. Determine appropriate levels of sketching and drawing approaches based on the intended visual communication audience and stage of development.

Readings / Book Purchases:

Baskinger, M. and Bradel, B. Drawing Ideas. Watson-Guptill Publications, 2013. (*You may already have purchased this book for IDES1300 & 1301*)

Hallgrimson, B. Prototyping and Model Making for Product Designers (second edition). Laurence King Publishing Ltd., 2019 (*Please purchase this book*)

Course Deliverables

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

Grading Document:

The final grade for the course will be based:

1.	Four Assignments	30%
2.	Project 1 User Interface	25%
3.	Project 2 Theme Based	30%
4.	Progress Document (take home exam)	10%
5.	Studio Performance	5%
	Total	100%

These are the deliverables for this course:

1. Sketching Assignments:

Four in class assignments to develop sketching abilities and design competency. Assignments will be presented and reviewed in class. Boot Camp A 5%, B 5%, Team Design 10%, One Day Design 10%

2. Projects:

Two distinctive design projects which take the skill and knowledge developed though class lectures and assignments are design process oriented demanding iteration and exploration using modeling and sketching as the tools of investigation. Each student will develop an innovative design, which will be presented and reviewed to instructor and students in the studio. This is a major portfolio project; all work should be documented electronically.

3. Progress Document:

A take home exam which will be presented at the end of the exam period where each student will present electronically of the progress and work completed during the semester in a proper desktop format. Progress reviews will be conducted throughout the semester.

4. Discretionary Grade:

Based on the instructors informed opinion of the students' performance in class. Grading is a reflection of the instructor's experience and ability to judge the student's soft skills that may not be captured in deliverables, but rather through their behaviour in class.

Please see Appendix A for Timeline Graphic

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.

Sketching/Drawing

- 1. Paper: A ream of a standard Letter sized (11" x 8.5") white inkjet.
- 2. Paper II: A ream of bond, white tabloid paper (11" x 17") to be shared between 2 students
- 3. Paper III: A role of minimum 12" wide Tracing paper, either white or
- 4. Pen: BIC Round STIC 1.0mm (Black). (As long as it is 1.0 mm, it does not have to be the same brand.)
- 5. Pen II: Pilot Fineliner, black, porous point marker
- 6. Pencil: Black or Indigo Blue, Prismacolor Verithin pencils (please purchase at least 4 pencils)
- 7. Pencil II: Prismacolor Primer White (two pencils is recommended)
- 8. Ruler: Cork Backed Metal Ruler (recommend 14")
- 9. Clear Plastic Triangle Set Square, small, 30/60 & 45/90
- 10. Markers: A set of Cool Gray Marker No.1 to 10 Suggest multi-tip professional brands such as Shinhan, Alpha, Prismacolor, Zig, Touch or Copic.
- 11. Markers II: Several Professional-brand Coloured Markers (pastel colours recommended)

Model Making (Many of these materials you may of purchased for IDES1300 & 1301)

- 1. Segmented Knife (Olfa) Spare blades
- 2. X-Acto Cutter Extra Blades
- 3. Rasp
- 4. Small Cross-cut Saw
- 5. Safety Goggles
- 6. Engineer Square
- 7. Electronic Vernier Calipers
- 8. Hot-glue Gun (medium size) Glue Sticks
- 9. Plasticine
- 10. Set of Pliers
- 11. Masking Tape
- 12. Different Sandpapers: 80 grit, 120 grit, 220 grit

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

Software

That should be installed onto your laptop: Adobe Photoshop & Illustrator

Student Access to Quiz, Test and Exam Papers:

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

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 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 <u>Student Guide to</u>
<u>Academic Accommodation (PDF, 2.1 MB)</u> For accommodation regarding a formally-scheduled
final exam, you must complete the Pregnancy Accommodation Form (<u>click here</u>).

- 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



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