

COURSE OUTLINE IDES 1301B • PROJECTS IB • Winter (2024)

Instructor: Stephen Field

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Location: **3476 ME**

Office Hours: During studio/lecture hours or by appointment

Teaching Assistant: Dhatri Gunupudi

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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

Aspects of industrial design theory and practice, specifically those dealing with principles of product development, fundamentals of form and colour and case studies. Students will explore the design process with emphasis on creative problem-solving techniques and visual communication in design.

Includes: Experiential Learning Activity.

Prerequisite(s): IDES 1300.

Studio and lectures six hours a week.

Learning Outcomes

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

1. Identify and apply the basic principles and tools of design.
2. Perform and recognize the value of Idea exploration – idea explanation.
3. Generate visualization and ideation sketching techniques through the use of line, value, and colour.

4. Identify the elements of form and translate these principles into project-based assignments.
5. Interpret form through the application of removal and additive modeling techniques.
6. Interpret the principles of mechanical operation through analysis, then through the use of computer-aided design software produce a general arrangement technical drawing that identifies the product specifications.
7. Participate as a team member in basic research to identify product requirements.
8. Conduct effective product presentations incorporating computer graphics software to produce
9. Apply basic computer-aided design with emphasis on orthographic projection to explore the principles of surface development.

Course Deliverables

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

Grading: The final grade for the course will be based:

1. Four (4) Assignments	40%
2. Major Project I	20%
3. Major Project II Theme Based	20%
4. Sketchbook - 2 reviews	10%
5. Studio Performance	<u>10%</u>
Total	100%

Execute in Course:

Students will be required to perform

- Technical Drawing
- Sketching Rendering Assignments
- Form Development with Desktop Modeling
- Ideation and Concept Development – through sketching and visualization techniques
- Design Projects – visualization and form development.
- Introduction to Computer Design, Technical Communication and Computer Modeling
- Sketch Book - record your process through the course .
 - Practice visualization techniques
 - Show Inspiration – photos, cuttings, materials
 - In-class Exercises
 - Notes & Observations
 - Present quality work that shows the development of your visualization skills

Student Access to Quiz, Test and Exam Papers

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

Required Materials

Please refer to Appendi B&C

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

Adobe Photoshop & Illustrator should be installed onto your Laptop

Please consult with Roman Miniakov if software has not been installed.

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.

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.

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.

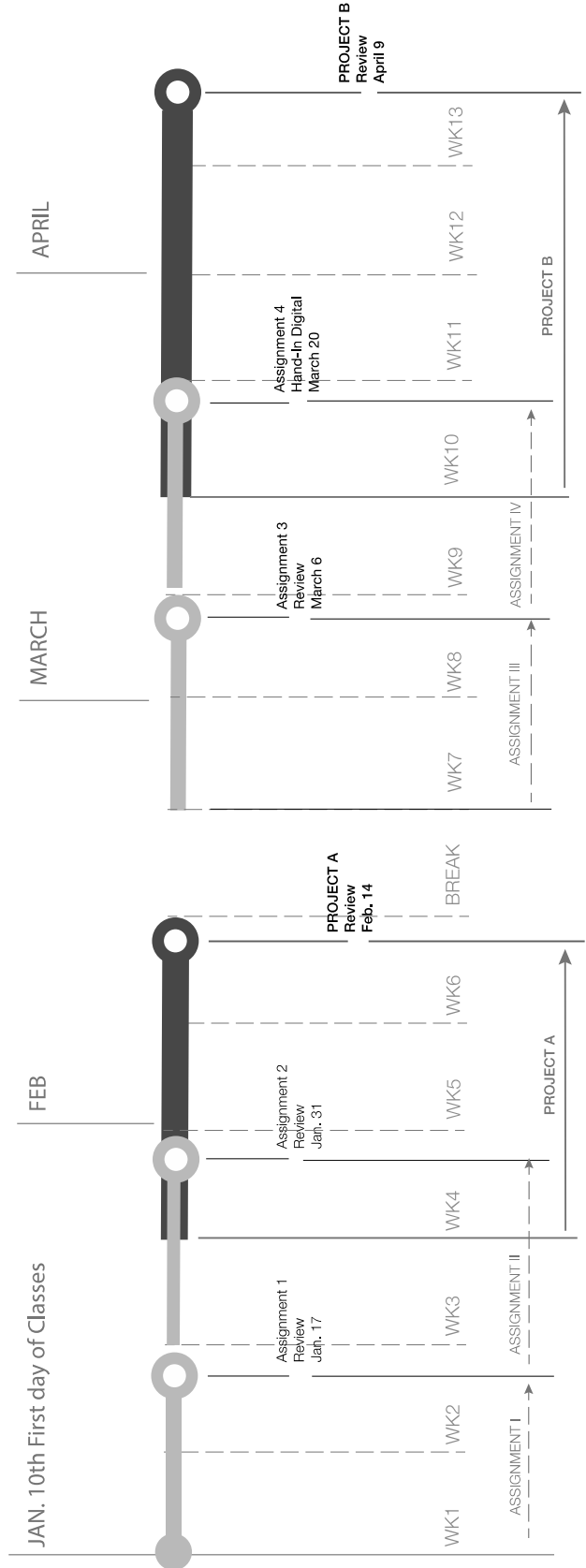
Unless otherwise arranged, the class will meet during scheduled class hours. Please note that attendance is important since issues and questions may be raised in class, and announcements made, along with information disseminated through Brightspace. As external professionals are often involved in our 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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Appendix B – Drawing Materials

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DRAWING MATERIALS

Visual Thinking starts first day – "get ready to start sketching." Here are the materials that you will be required to purchase, and using throughout the semester. You may already own some of these materials but please make sure that they are in good order and if the markers etc are dry you will need to get replacements. I will be reviewing the materials first day of classes.

Roll Tracing Paper 12" + wide +

Clear Plastic Ruler or Square

Prismacolor - Verithin - Black or Indigo

Prismacolor -Primer White

Pen - Bic Round STIC 1.0 mm Black or similar

Fineliner Black or Similar

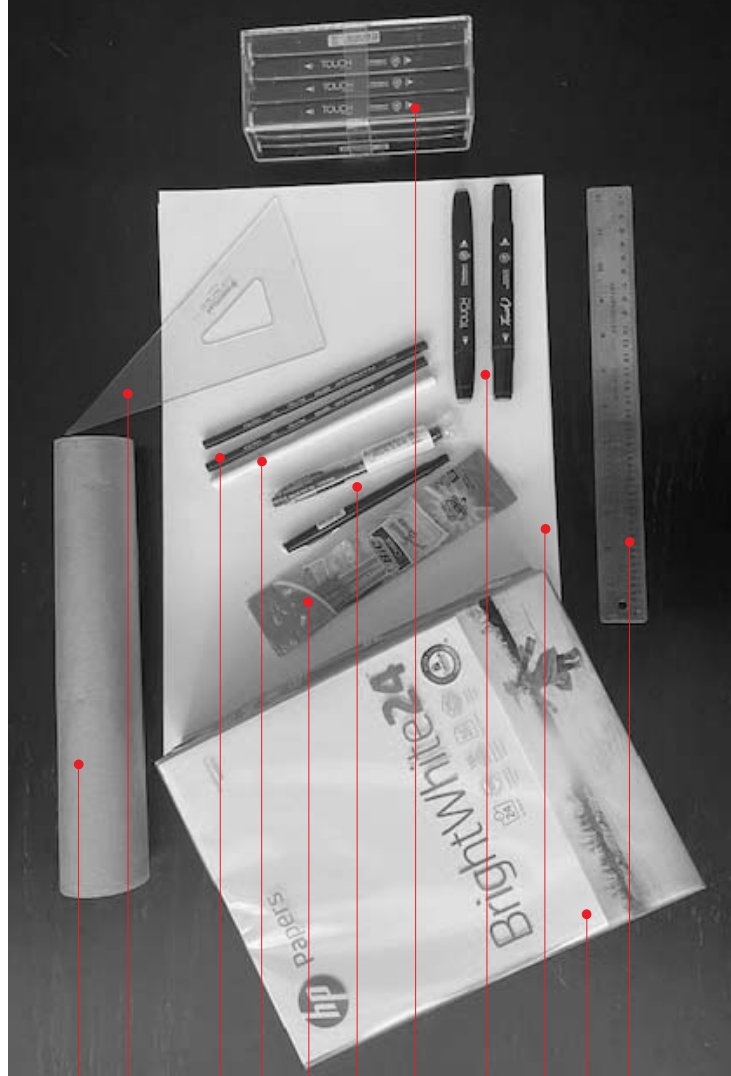
Set Cool Gray Markers 1- 10, Multi tip
Professional brand - Prismacolor Touch Copic etc.

2 Color Markers Pastel Colors
Professional brand - Prismacolor Touch Copic etc.

Paper: 11 x 17 white bond - Shere a pack

Paper: 8 1/2 x 11. Inkjet Paper - full pack

Cork-Back Metal ruler



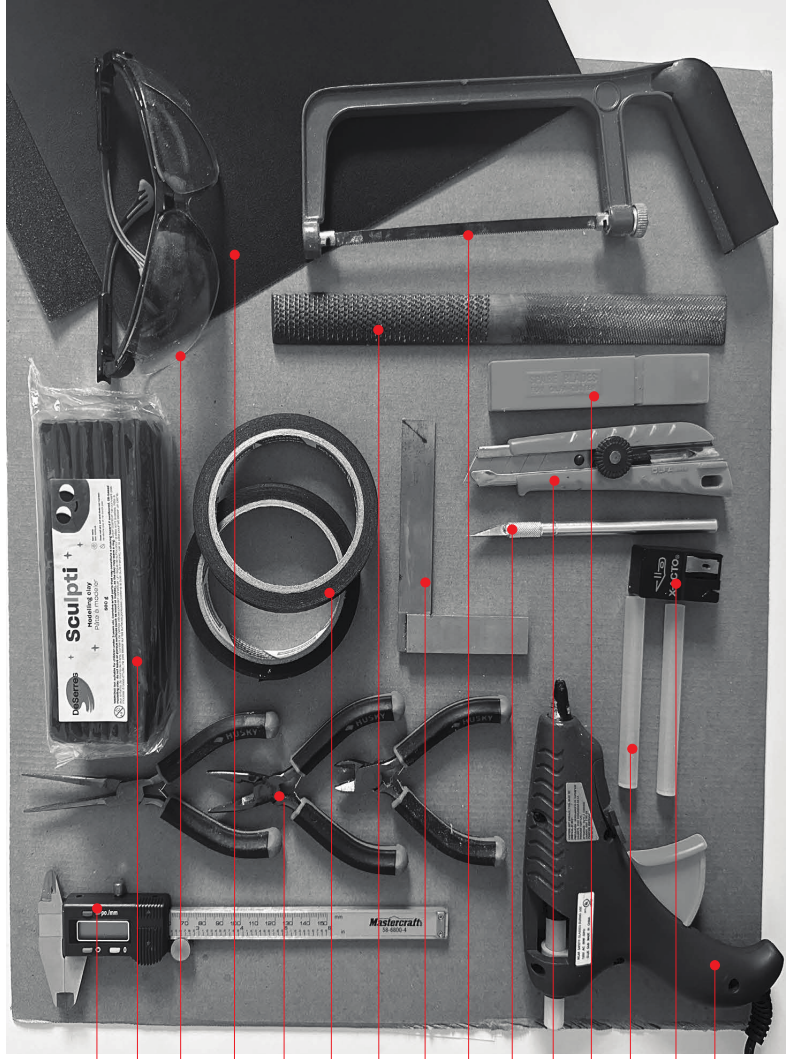
Appendix C- Prototype Tools

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PROTOTYPE TOOLS

As we progress in your development of design thinking process there will be more use of tabletop modeling, you have already purchased for IDES 1300 studio I hope you still have them!

I will be reviewing my tool box first day of classes. Modeling will start 2nd week, you will need some of these tools by then.



Digital Caliper / Vernier

Plasticine, pick any colour but know it will get dirty

Safety Glasses

Sandpaper (medium grit, fine grit) or (80 grit, 220 grit)

Set of Small Pliers, (needle nose, wire cutter)

Masking Tape

Rasp

Engineer Square

Small Saw

X-Acto Knife No. 11

Segmented Utility Knife

Replacement Utility Snap-off blades

Glue Sticks

Replacement No.11 X-Acto Blades

Hot Glue Gun, Medium Size