

COURSE OUTLINE IDES 1300A • PROJECTS IA • FALL(2021)

Instructor: Brett Hooper

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Location: In Class

Office Hours: Mondays

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Time and Location: Please refer to Carleton Central under Student Services – Registration – Search Schedule: https://central.carleton.ca/prod/bwysched.p_select_term?wsea_code=EXT

Course Description

An introduction to the skills and processes of industrial design including drawing and sketching as an aid to design, basics of line, shape, ideation, and visualization, product drawing, presentation techniques, basic model making, studio equipment and practices, introduction to the design process. Includes: Experiential Learning Activity. Prerequisite(s): IDES 1000 (may be taken concurrently). Studio and lectures six hours a week.

Learning Outcomes

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

1. Demonstrate and apply the basic principles and tools of design.
2. Carry out basic visualization and ideation sketching techniques through use of line drawing in context, shading and shadow.

3. Employ the rules of perspective and measured perspective drawing.
4. Gain the ability to identify the fundamentals of colour theory and translate these principles into project-based assignments.
5. Perform layout techniques as to recognize the basic principles of graphic language and presentation.
6. Explore the role of analog model making in design process.
7. Use and understand the rudimentary rules of structure and material properties through the use of sheet material hand modeling techniques.
8. Interpret form through the application of removal modeling techniques
9. To be aware and to apply the principles of technical drawing through scale orthographic projection based on drawing standards through the use of computer aided design.
10. Recognize then develop good communication skills through in-class visual and oral presentation.

Course Deliverables

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

1. 5 Minor Assignments – 40%
2. Major Project 1 – 20%
3. Major Project 2 – 20%
4. Sketchbook Assignments – 15% (2 Reviews of 7.5% each)
5. Attendance / Professional Mark – 5%

Student Access to Quiz, Test and Exam Papers

Choose an item

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.

Paper:

- One pack of HP Bright White Ink Jet paper or Similar 8 ½ x 11"
- One pack of HP Bright White Ink Jet paper or Similar 11x17"

Drawing Media:

- Verithin Pencils – color selection – Non-Repo Blue (minimum 2),
- One (1) White Prismacolor Pencils
- One (1) White Conte or White pastel pencil
- Box of BIC Crystal Black Roller Ball Pens,
- Cool Gray Designer Markers – Cool Gray 1 , 3, 5 or 7
- Two (2) Pastel Colour Designer Markers – you get to pick the colours you want to work with.

Technical Instruments:

- Roll of masking/drafting tape (25mm) – Blue Masking is Great.
- 2 Cork back steel rulers – Preferably 12" & 24" (if possible)
- Plastic – See Through Square or Ruler

Cutting and Modeling Tools:

- Small Toolbox - more and more tools will be added to the toolbox as the years go by.
- Segmented Knife – Olfa - replacement blades required, a pack of 50 is recommended
- X-acto blade and 5 refills
- Cutting Mat – Small 30cm x 45cm or equivalent
- Hot Glue Gun and Glue Sticks.... (Small craft glue guns are not sufficient)
- 100 and 220 Grit Wet Dry Sand Paper with a Sanding Block
- Rasp or Zester
- Small File Set

Safety Materials:

- One set of Safety Goggles
- Dust mask

Modelmaking materials:

- Multiple Foam core sheets (30"x20") – Staples, Dollarstore (3/16" thickness or metric equivalent)

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 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 which 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/>

- *Parental Leave*

- *Religious/Spiritual Obligation*
- *Academic Accommodations for Students with Disabilities*
- *Survivors of Sexual Violence*
- *Accommodations for Student Activities*

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

1st Week

- Introduction - Course Outline – Lets get to know who you are through a sketch
- Presentation – A typical product
- Sketching/ Desk Top Modeling – Warm-up Exercises / Cubes and Geometric Shapes - Basic theory on perspective - Decorate the cube exercise – Cube will be presented at next class
- Prepare for next weeks Jamming Session

2nd Week - JAMMING SESSION

Instructing students on different sketching techniques

- Material list presented for next week
- Jamming Session Assignment Presented (Assignment #1)

3rd Week

- **REVIEW** – Jamming Session assignment (Assignment #1)
- Introduction to Orthographic Projection
- Sketching, Side Views
- Working with Styrene Demo
- Major Project 1 Presented – Part A & B
- Rectilinear Project Presented
- Measured Perspective Demo / Lecture

4th Week

- **REVIEW – ERGIE**
- Major Project – Brainstorming
- Presentation – Design Process
- Presentation – Proportions

- Desktop Modeling – Foam Board

5th Week

- **REVIEW – Rectilinear Project**
- Demonstration – Desktop Modeling – Orthographic Drawings
- Consultation session

6th Week

- Work Session
- HAND IN - Sketch Book

7th Week

- **REVIEW – Major Project #1**
- Form Project Lecture
- Illustrator Introduction
- Midterm mark review – consultation session – one-on-one
- Hand tool & Icon Project Presented
- Measured Perspective Demo / Lecture

8th Week

- **REVIEW – Hand tool & Icon**
- Presentation – Colour
- Presentation – Descriptive drawing
- Work Session
- 2D Design / Expression Assignment Presented (Assignment #4)

9th Week

- **REVIEW – 2D Design (Assignment #4)**
- Newton – In class assignment
- Introduction to Major Project #2
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10th Week

- HOLES – Presentation
- Assignment #5 Presented.
- In class project due at 4:30PM

11th Week – Monday 25th November

- **REVIEW – HOLES Assignment #5**
- WORK SESSION - In-Class Work on Major Project #2

12th Week

- Work Session – Major Project #2

- **FINAL REVIEW** – Major Project B