COURSE OUTLINE IDES 1301 • PROJECTS IB • WINTER (2020)

Instructor: Brett Hooper
Brett.hooper@cunet.carleton.ca
Room XXXX Building Name 446 Azrieli Pavilion
Tel. 613 • 520 • 2600, ext. 5672
Office Hours: Mondays

Teaching Assistant: Dawson Clark
dawsonclark@cmail.carleton.ca
Office Hours: Mondays

Time and Location: Please refer to Carleton Central under Student Services – Registration – Search Schedule: https://admissions.carleton.ca/faqs/where-can-i-find-the-class-schedule/

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 in project-based assignments.
5. Perform layout techniques through computer graphics software to show product operation and use cycle.
6. Investigate and conduct a range of prototyping techniques though the use of solid modeling materials.
7. Interpret the principles mechanical operation through analysis, then through the use of computer aided design software produce a general arrangement technical drawing that identifies the product specifications.
8. Participate as a team member in a basic research to identify product requirements.
9. Conduct effective product presentation incorporating computer graphics software to produce hardcopy visual materials in combination with oral communication techniques.
10. Apply basic computer aided design with emphasis on orthographic projection to explore the principles of surface development.
11. Identify design scope of a project through the generation of a design brief.

**Course Deliverables**

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

1. **4 Minor Assignments – 45%**
2. **Major Project 1 – 20%**
3. **Major Project 2 – 20%**
4. **Sketchbook – 10% (2 Reviews of 5% each)**
5. **Attendance / Professional Mark – 5%**

**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 cuLearn for a more comprehensive list of required materials.

- Safety Glasses/Goggles will be required in all shop activities – *a must to use the shops*

- Dust Masks – *Highly recommended*

- HB bright-white inkjet paper or similar

- 11x17 tabloid paper

- Cool Gray Markers

- Two pastel coloured markers

- Black Markers – Chisel Tip – Medium Point

- Foam Core – *(wait till assignment is presented to purchase)*

- Urethane Foam – *can be purchased from the shops (wait till assignment is presented to purchase)*

- Presentation Board – for mounting of drawings and presentation materials

- Tool Box – Start assembling a basic modeling tool kit – suggested tools will be presented during studio

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 cuLearn for other information or requirements related to computer work.
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/](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/](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 cuLearn. 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**

Type here to provide a course schedule, or if it is an attachment due to special formatting reasons, please ensure that it is included at this point in the document with the title: Appendix A – Course Schedule IDES 1301 • Project II • WINTER 2020

**WEEK 1 – Monday 6th January**

Introduction / Review Last Term / Course Outline / Material Requirements

Presentation - Process / Product Rendering & Sketching

Sketching Warm-Up – Brain Storm Sketching - Analysis & Development Sketching – Context Sketching

*One Week Drawing Assignment Presented, Major Project 1 Presented*

**WEEK 2 – Monday 13th January**

*REVIEW – One Week Drawing Assignment*
Presentation - Form Development

Sketching Organic Form

Form Development – In-Class Assignment

Safety / Technique Presentation by Walter Zanetti

Form Development Assignment Presented

WEEK 3 – Monday 20th January

Studio Session – Form Development

WEEK 4 – Monday 27th January

REVIEW – Form Development Assignment

Presentation on Presentation Grids

Work Session – Major Project 1

WEEK 5 – Monday 3rd February

Studio Session – Major Project 1

WEEK 6 – Monday 10th February

REVIEW – MAJOR PROJECT 1

HAND-IN Sketch Books
STUDY BREAK - Monday 17th to Friday 21st February

WEEK 7 – Monday 24th February

Use Cycle/Layout Project Presented

Major Project 2 Presented • CAD/Surfaces

Sketching Exercises

Indesign Tutorials

WEEK 8 – Monday 2nd March

REVIEW • Use Cycle

Sketching/Visualizing Exercise

WEEK 9 – Monday 9th March

Solidworks Tutorials / Session

Present Technical Drawing Project

WEEK 10 - Monday 16th March

Solidworks Studio Session
WEEK 11 – Monday 23rd March

Review Technical Drawing

Studio Session- Keyshot/Solidworks

WEEK 12 – Monday 30th March

Studio Session Major Project 2

WEEK 13 – Monday 6th April

REVIEW – Major Project 2

Hand-in sketchbooks at Final Walkthrough & email all term’s projects as a single pdf.

*Final Walkthrough – tentative date April 14th – all work pinned up by 9:30am – pick up after 3pm.

*Studio Clean-Out / Bin Clean out and Key Return April 17th

*Dates to be confirmed