COURSE OUTLINE IDES 3302B • PROJECTS IIIB • Winter (2024)

Instructor: **Nathalie Tambay**

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Location: **434 AP**

Office Hours: Tuesday

Teaching Assistant: **First Name Last Name**

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Office Hours: TBD

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

Introduction to the principles of innovation as found in industrial design. Invention, innovation, entrepreneurship, basic mechanisms. The design project(s) explore some or all of the design principles covered in the lectures.

Includes: Experiential Learning Activity.
Precludes additional credit for IDES 3301 (no longer offered).
Prerequisite(s): IDES 3300 or IDES 3310 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:

1. Generate creative and compelling design solutions through the meeting to the deliverables presented in a design brief.

2. Develop a final design solution that integrates a test protocol for quality assurance of a specific product requirement and a detailed assembly drawing with Bill of Materials.

3. Demonstrate an ability to develop prototypes to explore, prove and understand ergonomics, materials, and structures as a collective requirement.

4. Design and test a mechanism incorporating movement through sliding, hinging, or another relevant principle of movement.

5. Recognize the relationships between aesthetic, ergonomic, and usability to develop an industrial design solution.

6. Employ research synthesis tools- to Identify latent user needs and contextual concerns.

7. Apply the given business and/or technological requirements presented by a third party to develop a product opportunity.

8. Demonstrate professional behavior as an industrial designer.

Course Deliverables

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

1.Major Project - 65%
- Phase 1 – Research synthesis + Moodboard - 15 %
- Check point - Mandatory before going to shop – draft drawings, materials list + consult with Walter or Paul
- Phase 2 – Deliverable 1- Final Model and Mechanism Review - 30%
- Phase 3 – Technical Drawings, Specifications and Presentation boards - 20%

2. Minor Projects - 25%
- Submission to competition – Presentation boards, renders - 15%
- Outro – Minor Project - 10%

3. Professionalism – 10%
- Attendance, Participation, Accountability - 10%

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 Brightspace for a more comprehensive list of required materials.

Sketchbook, Digital Living document – to which you will send me and Alesya a link.

Other tools and materials you should have available:

In studio:

Sketching / Conceptualizing:

•One pack of 8 ½ x 11" bright white inkjet paper or similar
•Various nylon-tipped, rollerball, and/or ball-point pens
•Colored drawing pencils (e.g., Verithin non-repro blue, indigo blue, and/or black)
•Designer markers (grayscale and preferred accent colors)
•Cork-back steel ruler (14" minimum)

Modeling/prototyping:

•Safety Glasses or Goggles
•Tape Measure (metric and imperial)
•Self-healing cutting mat (12" x 18" minimum)
•Segmented utility knife and replacement blades (a pack of 50 is recommended)
•Hot glue gun and glue sticks (small craft glue guns are not sufficient)
•Roll of masking/drafting tape (25mm)
•Sandpaper of various grits
•Engineer square or equivalent

Materials you may need to purchase:

• Fasteners as specified in your design
• Hardware as specified in your design (feet, standoffs, edging, handles)
• Veneer or equivalent for finish modeling
• Stain / Colouring
• Accent materials
• Lumber, wood, or equivalent
• Edge banding
• Wood Glue

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 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 desired 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 desired section.

Topics:

- Counselling
- Resource Guide
    - Thriving on Campus
    - Everyday Stress
    - Mild Mental Health Concerns
    - Moderate Mental Health Concerns

       o   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

Type here to provide a course schedule, or if it is an attachment due to special formatting reasons, please ensure that it is title**: IDES 3302B PROJECTS IIIB W24 - Nathalie Tambay - Appendix A Course Schedule** and sent it with your course outline.

Week 1 – Jan 11
- Review the Course Outline and Outcomes
- Professionalism and the Document
- Introduce the Major Project Brief
- Review Competition Deliverables
- Meet at the main doors to the Library near Second Cup 2pm
- WBS – Presentation – Assignment / Activity/
- Waiver signed and submitted

Week 2 – Jan 18

- Field Trip Day – Itinerary and Map will be on Brightspace
- Meet at KJP Select Hardwoods at 10AM SHARP – No Waiver = No Entry
- Dress for the weather – there will be some walking
- Scavenger hunting

Week 3 – Jan 25 – Review Phase 1

- Visual Synthesis – Mood Board Pin up -
- Share link for Process Document - Present Formalized WBS and Game plan Cabinet 101
- Sketching for Furniture/mechanism ideation
- Scales, Standards, Function, and Ergonomics

Week 4 – Feb 1
- Presentation – Norman Pirollo
- Veneer Exercise
- WBS and Game plan
- Concept technical development / refinement

Week 5 – Feb 8
- Shop time – 1-on –1 furniture concept refinement
- Mid-Phase check-ins and informal presentation
- Lo-fi mechanism exploration

Week 6 – Feb 15
- Shop time – 1-on –1 furniture concept refinement
- Mechanism and Structural Reviews/test

-------------------=*STUDY BREAK*=------------------------
Week 7 – Feb 29
- Shop time – 1-on –1 furniture concept refinement
- Final adjustments, details, assembly

Week 8 – Mar 7 Phase 2 REVIEW
- Major Phase 2 Review – Model and Mechanism

Week 9 – Mar 14
- **Major Phase 3 – begins**
  - Material and component sourcing
  - Specifications
  - Technical Drawings
  - 3D model/ Detailed Assembly Drawings
  - Quality Assurance

Week 10 – Mar 21 – Phase 3 REVIEW
- Pin Up and Peer Review / feedback
- Streamline and align to client requirements per original project Brief
- Introduction of the Minor Project

Week 11 – Mar 28
- Revisions from Feedback and Project Submission prep work
- Studio time for Renderings and High-end Presentation Boards
- Work Session Minor Project

Week 12 – April 04 – REVIEW Minor Project

- Minor - Review of Submission materials
- Submission to Competition - Final Check-in and Sign off
- Final Minor Review