1. GENERAL COURSE INFORMATION AND SCHEDULING

Instructors
Nikolas Beaudin, B.I.D. Section A, email: Nikolasbeaudin@cunet.carleton.ca
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Office Hours
Studio hours are designated for lectures, discussions and act as office hours. If there is an important concern, please send your instructor an email.

Time and location
2nd Year Studio: Monday and Tuesday 9:35-16:25 With 1 hour for lunch and breaks as needed.

Student Emails
Students should monitor their Carleton email accounts, for emails from instructors.

2. GENERAL COURSE CONTENT INFORMATION

Course description: Introduction to the design principles associated with adapting products to an existing product semantic. Topics covered: principles of design, product semantics, design analysis, design synthesis, design evaluation, and modeling techniques. The design project(s) explore some or all of the design principles covered in the lectures.

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

1. Apply product analysis and synthesis theory from IDES 1001.
2. Apply material and manufacturing theory from IDES2101.
3. Demonstrate awareness of multi-sensory aspects of design theory from IDES2205.
4. Demonstrate elevated knowledge of freehand orthographic and perspective sketching process and technique, including construction, line weight management, shading and shadows.
5. Analyze the visual language of a brand in terms of brand characteristics and design cues.
6. Incorporate design constraints in projects including standards.
7. Have a working knowledge of product design semantics.
8. Product General Arrangement drawings showing all parts and assembly including a Bill of Materials.
9. Compile and present professional looking presentation boards utilizing analog and digital methods.
10. Develop physical prototyping and modelmaking knowledge and skills in medium to high fidelity materials utilizing analog tools and work safely in shops under supervision.
11. Develop awareness of electrical and electronic requirements and constraints.
12. Demonstrate professional behaviour.
13. Design as part of a team.
### 3. PARTICULAR COURSE INFORMATION AND SCHEDULING

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
<th>Studio Activity</th>
<th>Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 8/9</td>
<td>Warm up exercise</td>
<td>Work on warm up assignment</td>
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<tr>
<td>Jan 15/16</td>
<td>P1 Introduction</td>
<td>Meet and greet. Course description and overview. Project 1 - Introduction</td>
<td></td>
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<tr>
<td>Jan 22/23</td>
<td>P1 Progress meetings: initial ideas</td>
<td>Discussion on low and high-fidelity modeling. Project 1: Individual meetings: observation, analysis, synthesis and conceptualization. Meetings and individual reviews.</td>
<td>Project 1: 1- Collage of Analysis Sketches 2 - Identify specific clutter issues</td>
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<tr>
<td>Jan 29/30</td>
<td>P1 Progress meetings: concept sketches</td>
<td>Presentation on materials. Individual discussions of proposed concepts for the given clutter problem.</td>
<td>Project 1: 3 - Concept sketches</td>
</tr>
<tr>
<td>Feb 5/6</td>
<td>P1 Progress meetings</td>
<td>Project 1: Work on final design boards and appearance models. Individual Progress meetings as needed. Schedule time with instructor to go over progress/issues.</td>
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<tr>
<td>Feb 12/13</td>
<td>P1 Final Review P2 Introduction</td>
<td>Project 1: Final Review Project 2: Introduction</td>
<td>Project 1: 4 - Final design boards 5 - Appearance Model 6 - Catalogue Item</td>
</tr>
<tr>
<td>Feb 19/20</td>
<td>Winter Break</td>
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<tr>
<td>Feb 26/27</td>
<td>P2 progress meetings</td>
<td>Discussion on iOT devices and UI/UX</td>
<td>Project 2: Final Review</td>
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<tr>
<td>Mar 5/6</td>
<td>P2 Progress meetings</td>
<td>Project 2: Work on deliverables/models Individual Progress meetings as needed. Schedule time with instructor to go over progress/issues.</td>
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<tr>
<td>Mar 19/20</td>
<td>P3 Progress meetings</td>
<td>Lecture on brand essentials. Project 3: Meet with teams to review initial research, thoughts and concepts for all aspects of the project. Sketchbook explorations to be reviewed with each group.</td>
<td>Project 3: 1 - Brand Board 2- Ideation</td>
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<tr>
<td>Mar 26/27</td>
<td>P3 Progress presentations</td>
<td>Demo on clay modeling. Project 3: Informal group presentation on brand research and initial concept ideation.</td>
<td>Project 3: 3 - Clay Model Hand in sketchbooks</td>
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<tr>
<td>Apr 2/3</td>
<td>P3 Progress meetings</td>
<td>Project 3: Work on clay models, technical drawings and presentation Schedule time with instructor to go over progress/issues.</td>
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<tr>
<td>Apr 9/10</td>
<td>P3 Final Review</td>
<td>Project 3: Final Review</td>
<td>Project 3: 3 - Clay Model Hand in sketchbooks</td>
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4. **COURSE COMPLETION AND EVALUATION INFORMATION**

**Course Projects**

1) Warm up exercise
2) Project 1 Review
3) Project 2 Review
4) Project 3 Review
5) SID Sketchbook Deliverable

**Electronic Submission**

Each project may have some requirements for uploading files to CULearn as part of the hand-in for the review. These files are to be uploaded as per instructions on CULearn, by the assigned due date.

**Course Completion Requirements**

In order to complete the course, the overall grade of the course must be at least C-.

**Course Evaluation Information**

Warm up exercise: 5%
Project 1: 30%
Project 2: 20%
Project 3: 30% (group and individual project 60/40 grade split)
Sketchbooks: 10% (thoroughness, skill and evidence of problem solving)
Studio Assessment*: 5% (evaluation is based on student work and participation in class)

*The studio replicates a professional studio environment, where designers work alongside each other as well as in groups on assigned projects. Please refrain from inappropriate behavior, understand that studio is for peer learning and do not work on other than IDES 2302 projects in studio. Please turn off cell phones and do not run laptops during lectures or reviews. Also see Student Responsibilities below.

**Textbook**


**Material Requirements**

S.I.D Sketchbook
Sketching tools, such as markets, pens, pencils etc.
Roll of trace paper (white or yellow, must fit over 11x17 sheet).
Modelmaking materials (available from ID shops)
Clay Billets for Group Project 3
Basic Modelmaking tools (Set of rasps, Dremel is useful)
Grades of sandpaper (80, 220, 320 grit)

**Software Requirements**

Illustrator: to do technical drawings (e.g. orthographic drawings, general arrangement drawings, floor plans/elevations/ceiling plans), renderings, graphic design, presentation boards, etc.
Photoshop: to do renderings, graphic design, presentation boards.
InDesign: to do presentations and reports.
Solidworks: for high level 3D CAD models
Keyshot or equivalent: for renderings
General Notes:

Individual/Group Work
Courses may include various combinations of individual and group work. Students must demonstrate individual aptitude. It is important where collaborative work is undertaken that students be able to clearly demonstrate that individual contribution has been made. Where the evaluation for individual work is below a passing grade, that grade will be awarded for the course.

Review Attendance
Attendance at scheduled SID reviews is mandatory. These are equivalent to exams in IDES courses when indicated in the course outline. Failure to attend will result in a grade of F. If you are not able to attend a review, you are required to call the General Office (613-520-5672) and/or send an email to id@carleton.ca to leave a message in advance. A comprehensive medical certificate or other documentation to substantiate the absence must be submitted as soon as possible after the review. The documentation must state the date of illness onset, the expected date of recovery, and the extent to which the student is incapacitated. The student is also required to set up a meeting with the instructor as soon as he or she is well enough to discuss and schedule an alternative date.

Any student in the review should submit materials for presentation and present as scheduled. In addition, a student who does not remain for the complete review session, who does not present as scheduled, or who arrives late for the review, without approval from the instructor, will receive a 10% grade reduction for that review.

Personal Electronic Devices
Cell phones and other smart devices cannot be used during a review and should be out of sight, in silent mode or turned off completely.

Late Submission of Deliverables
Course Deliverables for reviews and other due dates
All deliverables submitted late will accrue a 10% per day deduction from the determined grade, to a maximum of 3 days, from the original deadline time and date. Failure to submit within 3 days, without approval from the instructor, will result in a grade of F.

Participation and Professionalism
Active participation and professional conduct are particularly important in studio courses and will be evaluated. At the same time, when the student’s work is reviewed at the end of the course, an evaluation will be made based on one or more of the following: in class discussion; consultations with instructors; and work ethic. However, none of these evaluations will be used to raise an overall failing grade, to a passing one, based on the quality of the work.

Student Access to Exam Papers
Examinations are for evaluation purposes only and will not be returned to the student.

5. STUDENT CONSIDERATIONS AND RESPONSIBILITIES

Academic Accommodation (Equity Services)
You may need special arrangements to meet your academic obligations during the term. For an accommodation request the processes are as follows:
Pregnancy obligation: write to me 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 visit: http://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf
Religious obligation: write to me 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 visit: http://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

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 disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your Letter of Accommodation at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). Requests made within two weeks will be reviewed on a case-by-case basis. After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website (www.carleton.ca/pmc) for the deadline to request accommodations for the formally-scheduled exam (if applicable).

Instructional Offenses / Plagiarism
The regulations of the university require that we bring to your attention regulations on Instructional Offenses, descriptions of which can be found in the current Academic Integrity Policy available on the Student Affairs website. The policy governs the academic behavior of students. At the same time it seems that students do not always understand the meaning of plagiarism and how to avoid it.

In industrial design, ideas and concepts come from a multitude of sources to be modified and utilized in the design and development process. The student should reference sources appropriately.

Student Responsibility
The student is responsible for knowing the content of this course outline, the schedule of classes, assignments, and reviews; and material covered during any absence from scheduled classes.

Unless otherwise arranged, the class will meet during regularly scheduled studio hours. These meetings are mandatory; important issues and questions will be raised, and announcements might be made. Everyone is expected to be based in studio and to work during scheduled hours. The studio should be considered a professional design studio environment. Because of the special involvement of external professionals, scheduling changes for guest lectures, presentations, and reviews may occur at short notice; students should stay informed regularly.

Other Considerations
Whereas students have the freedom to be creative and explore various paths for their projects, they are also expected to develop their project in consultation with the instructor as well as project partners. In cases where the student disagrees with any specific direction received, this should be discussed further with the instructor who ultimately decides what is expected from the student.

It is imperative that the students take responsibility for communicating issues that may be affecting their progress to the instructor ahead of any deliverable and resolve any changes to their project plans in consultation with the instructor. There should be no “big surprises” at the review.

Changes to the Course Outline
The course outline may be subject to change in the event of extenuating circumstances.