INTRODUCTION TO DESIGN STUDIO: LEARNING BY DOING

BACHELOR IN DESIGN
Professor: ANDREA CARUSO
E-mail: acaruso@faculty.ie.edu

Academic year: 17-18
Degree course: FIRST
Semester: 1º
Category: BASIC
Number of credits: 6.0
Language: English

PREREQUISITES
The students are required to be familiar with hand drawing, computer skills in order to research and compile presentations (Keynote, Powerpoint, Indesign, Illustrator). It is highly recommendable to know some fundamentals of computer aid drawing - 2D and 3D (i.e. Rhinoceros, Autocad, Sketch-up etc.). Students must have a very good predisposition to manual work, using different types of materials, tools and machineries. Students must also know to be critical, share their knowledge, work both individually and in group, help the peers, respect class rules and timings.

SUBJECT DESCRIPTION
The subject aims to be an introduction to the project-based learning model and the skills needed to follow a design process in a workshop. Being projects the vertebral structure of the degree, it is relevant that the student learns the types of activities that will be carried out. The goal is to allow the student to determine, evaluate and monitor the work he develops while proposing solutions to the exercises which the teacher suggests. The interaction and observation of the different ways of approaching the same problem from similar perspectives (the work of peers) will help students to learn how to develop new skills in every situation, in the search of a personal point of view on the project, which will gradually become their own language.

OBJECTIVES AND SKILLS
The main themes and skills to be acquired will be:

- To practice problem solving by proposing, prototyping and executing solutions that will be reviewed;
- To get familiar with and put in practice the creative method: problem analysis, concept definition, research, prototyping, evaluation and communication;
- To learn how to express an idea with hand sketching and model making;
- To acquire the foundations in relation to material processing through manual work, getting familiar with carpentry techniques, manual tools and Fablab technologies;
METHODOLOGY

The course is divided into different consecutive workshops all of them composed by theoretical and practical activities and the engagement with readings through assignments, class discussion and tasks both individual and group work. Students are expected to deliver assignments constantly throughout the course, collective debates will be held every session to share contents and points of view. Interactivity and engagement is critical to the learning process and therefore students will be encouraged to share their thoughts and ideas in relation to issues presented in each seminar. The majority of sessions will be held in the workshop, students will have to get familiar with the machineries, tools and materials in order to prepare each assignment.

Based on the above competencies, the Professor will for his CLASS SESSIONS rely on a combination of the below course formats: Lectures, Discussion Sessions, Student Presentations and Student Debates. Students will dedicate their INDIVIDUAL STUDY HOURS to: Individual Study, Preparation of Assignments and Tasks.

CLASS ELECTRONIC REQUIREMENTS: This subject requires the use of a laptop in some specific class for activities like researching and preparing the assignments.

<table>
<thead>
<tr>
<th>Teaching methodology</th>
<th>Weighting</th>
<th>Estimated time a student should dedicate to prepare for and participate in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lectures</td>
<td>20.0 %</td>
<td>30 hours</td>
</tr>
<tr>
<td>Discussions</td>
<td>20.0 %</td>
<td>30 hours</td>
</tr>
<tr>
<td>Exercises</td>
<td>30.01 %</td>
<td>45 hours</td>
</tr>
<tr>
<td>Group work</td>
<td>20.0 %</td>
<td>30 hours</td>
</tr>
<tr>
<td>Other individual studying</td>
<td>10.0 %</td>
<td>15 hours</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100.0 %</td>
<td>150 hours</td>
</tr>
</tbody>
</table>
PROGRAM

SESSIONS 1 - 3
INTRODUCTION. LEARN BY DOING. CASE STUDY “SCISSORS BY CASTIGLIONI”
Presentation and Lecture
This first session is dedicated to explain the subject and its objectives, the methodology of “Learn by Doing” and the fundamentals of the design process. We will reflect upon the notions of “project, production, sale and consumption” as key factors for the design practice. We will go through the basic technique of hand-sketching as a fundamental tool of observation and analyzing the products which surround us. The professor will also present the structure of the course along with other practical aspects in relation to the evaluation system and the functioning of the class will be discussed.

The students must acquire for this session:
- x1 black pen (Muji 0,5mm or similar);
- x1 notebook A4 (plain white, no lines, no graphics, no decoration);
- x5 felt pens ABT markers, colors: N95, N75, N25, 990, 243 (more if you like, very light colors are suggested rather than dark / intense ones);

It is very important that students start documenting their work from the first sessions with pictures and videos, since the last assignment is the editing of a video “teaser” telling the story of the whole process of their assignments.

Reading:
- BIS Publisher, Koose Eissen, Sketching The Basics, 2011.

Task 1:
Workshop “Scissors by Castiglioni”, Biopsy and Sketching. Task description: find two different scissors for specific and different uses. On a 50x70cm format drawing paper hand sketch the analysis of these two objects in comparison: views (elevation, sections etc.), relationship with the human hand and the object to cut, showing the design peculiarities, the use of materials and finishes. Finally mount the scissors on two supports of MDF wood - 5mm thickness - 30x30cm with rounded shape of 1 cm radius. Label the two panels with a white paper tag - 6x2cm, font Helvetica Regular 9tp, state the “Title” of scissor and the “Material” which is made of.

SESSIONS 4 - 6
REFLECTING UPON THE DIFFERENCE BETWEEN GOOD AND BAD DESIGN
Lecture and Discussion
In this session we will discuss upon the concept of “Good - proper - and Bad Design - improper”, reflecting upon which values are fundamental when analyzing a product and promoting a critical approach the students must acquire for their future career. The aim of this session is also to understand the rules behind the mass market manufacturing system that influence the way products are designed, and be able to recognize the ones which are correct, useful and made to last.

Task 2:
Workshop “Shop at Tiger”, Scouting, Biopsy and Sketching. Task description: find two products from the same category, the first must be found in a store for cheap products (Tiger, Chinese Bazaars etc.), the second one must be a long lasting object, which can be found for example at home or in antique shops, still working. On a 50x70cm format drawing paper sketch the analysis of these two objects in comparison: views (elevation, sections etc.), relationship with the human hand and the object to interact with, showing the design peculiarities, the use of materials and finishes. It is very important to highlight the negative attributes that define the “improper” objects.

SECTIONS 7 - 9

CASE STUDY “SUPERNORMAL”

Lecture and Discussion

Industrial designers Jasper Morrison and Naoto Fukosawa have been working together in curating of a famous exhibition called “Super Normal”, compiling a selection of mass produced products that follow the practice of good design. Students have to understand why the products have been selected and propose a new one to be insert in the selection explaining the aspects that justify their choice.

Reading:
Lars Muller Publisher, Naoto Fukasawa and Jasper Morrison, Super Normal, 2007.

Task 3:
Writing “The Supernomal”. Task description: Write an article to publish on a design magazine, commenting on the relationship between shape and function of three objects in the exhibition “Super Normal”, describing their peculiar characteristics, in terms of form-design relationship, so that these products have been selected to be part of the exhibition. Give your opinion regarding contemporary industrial products, how is the design process related to themes such as the need to sale or the quality of the design. You can write about concepts which have been discussed in class as the “programmed obsolescence”, sustainability and the impact products have on our daily life (2000 words approximately).

SECTIONS 10 - 12 (LABORATORY)

Tutoring and Work in class on Tasks 1,2,3, Assignment Preparation.

SECTIONS 13 - 15

SHAPES, PROPORTIONS AND FUNCTIONS. CASE STUDY “BRAUM & APPLE”

Lecture and Discussion

In this session students will learn the relation between brands like Braum and Apple, following the practice of their two creative directors, Dieter Rams and Jonathan Ive. Students will have to study two products and sketch their similarities in terms of shape, texture, proportions and materials.

Assignment:
Delivery of Tasks 1,2,3

Task 4:
Workshop “BRAUM & APPLE”, Biopsy and Sketching. Task description: Study the similarities between two products, one of Braum designed by Dieter Rams and the another of Apple by Jonathan Ive, highlighting how the shapes and proportions have been maintained, although the functions have changed. On a dark blue 50x70cm format drawing paper - sketch the analysis using the technique of white pencil only.
SESSIONS 16 - 18

IS SHAPE ALWAYS RELEVANT? CASE STUDY “A DOOR HANDLE”

Lecture and Discussion

Students will learn the relation between form and function in the design of a door handle. In this session each student will have to design and produce a prototype of two versions of this kind of object, the first one designed with a geometric shape, the second with an organic one.

Task 5:

Workshop “A Door Handle”, Model making and prototyping. Task description: Study the shape of two handles, thought of different materials: one should have an organic shape and the other geometric, to be used on a standard house door. The design must be suitable for an industrial production scale and be at a competitive cost to reach the mass market. On a 50x70cm format drawing paper study the shapes of these two proposals, similarly to what made in the past assignments. Finally create a real model of both designs in 1:1 scale, mounted on two supports of MDF wood - 5mm thickness - 30x30cm with rounded shape of 1 cm radius. Label the two panels with a white paper tag - 6x2cm, font Helvetica Regular 9tp, state the “Title” of handle and “Material” used for the prototype.

SESSIONS 19 - 21

Tutoring and Work in class on Task 4-5, Assignments Preparation.

SESSIONS 22 - 24

WOOD CARPENTRY AND FURNITURE DESIGN

Lecture and Discussion

This sessions are dedicated to the learning of wood carpentry techniques and methodology behind the design of a piece of furniture. Students will learn the different wood formats, types of joints, as well as the machineries needed for wood manufacturing. We will discuss concepts like stability, material resistance and ergonomics. Group of two students work on these tasks.

Assignment:
Delivery of Tasks 4-5

Reading:
- PDF: Wood Focus, Notes on Wood Joinery and Carpentry Techniques.

Task 6:

Workshop “Wood Joinery”, Model making and prototyping. Task description: Students will receive an instruction manual in order to produce different types of wood joints using carpentry tools and mixing kinds of wood. Group of two students work on this task.

Task 7:

Workshop “Design of a Chair”, Model making and prototyping. Task description: Students will have to replicate and produce a 1:1 scale model of an existing wooden chair. The chair must be as solid, confortable and well finished as the original one. Small changes to the original design are allowed only if they are justified by solid argumentation. Group of two students work on this task.

SESSIONS 25 - 33

Tutoring and Work in class on Tasks 6-7, Assignment Preparation.
SESSIONS 34 - 36

METAL AND GLASS MANUFACTURING
Lecture and Discussion
This sessions are dedicated to the manufacturing of metal and glass. Students will have to research products made in those two materials. They will also have to design and prototype a stationery product, though in steel and prototyped using cardboard. Finally we will pay a visit to the Real Fabrica de Vidrio in La Granja to learn the blowing glass techniques.

Assignment:
. Delivery of Tasks 6-7

Task 8:
. Workshop “Cut & Fold Metal”. Task description: Students must design and prototype a stationery product, though in steel and prototyped using cardboard. Group of two students work on this task.

Task 9:
. “Blowing Glass”. Task description: Students must understand the technique of blowing glass while visiting the Real Fabrica de Vidrio in La Granja.

Task 10:
. “Tell The Story”. Task description: Students must edit a 1-2 minutes long “teaser” video, resuming the whole experience of the subject, describing the workshop process and results. Group of two students work on this task.

SESSIONS 37 - 42

Tutoring and Work in class on Tasks 8-9-10, Assignment Preparation.

SESSIONS 43 - 45

FINAL EXAM
This is a handwritten, no open book and in class exam. The professor will provide a object to hand sketch in a A2 format (time 1:30 hours).

Assignment:
Delivery of Tasks 8-9-10

Late Deliveries:
Tasks 1-2-3-4-5-6-7. The maximum grade for late deliveries is 5/10, Final Exam session only (#43-44-45).
The readings assigned for each seminar, as detailed above, are mandatory. These readings will be provided as PDF documents through the Documents folder of the course page on the Campus Online.
The followings books will be also used in this course:

**COMPULSORY**

Title: Super Normal  
Author: Naoto Fukasawa and Jasper Morrison  
Publisher / Edition / Year: Lars Muller Publisher  
ISBN / ISSN: 978-3-03778-106-7  
Medium: PRINT

Title: Sketching -The Basics  
Author: Koos Eissen and Roselien Steur  
Publisher / Edition / Year: BIS Publisher  
ISBN / ISSN: 978 90 6369 253 7  
Medium: PRINT

**RECOMMENDED**

Title: Historia del Diseño  
Author: Renato de Fusco  
Publisher / Edition / Year: Santa Cole  
ISBN / ISSN: 84-934626-2-4  
Medium: PRINT

**EVALUATION CRITERIA**

Students will be evaluated continuously over the course of the semester, taking into account attendance and student commitment and participation in class, especially during discussions and debate, as well as the completion of assignments and tasks as assigned per the syllabus.

At the conclusion of the semester, the final grade will be determined by the students’ capacity to analyze, conceptualize and prototype products, integrating all the knowledge acquired during sessions. The result of this process of learning will be evaluated through the course assignments and tasks, and the final exam. Special consideration will be made for students’ commitment to and engagement with the material, their participation in the discussion and debate sessions, as well as their initiative and creativity in their personal investigation.

Your final grade in the course will be based on both individual and group work of different characteristics that will be weighted in the following way:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Percentage</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermediate Tests</td>
<td>70 %</td>
<td></td>
</tr>
<tr>
<td>Class Participation</td>
<td>10 %</td>
<td></td>
</tr>
<tr>
<td>Final Exam</td>
<td>20 %</td>
<td></td>
</tr>
<tr>
<td>Final Exam</td>
<td>0 %</td>
<td></td>
</tr>
</tbody>
</table>
Individual Work:
Task 1: “SCISSORS BY CASTIGLIONI”
Task 2: “SHOP AT TIGER”
Task 3: “THE SUPER NORMAL”
Task 4: “BRAM & APPLE”
Task 5: “A DOOR HANDLE”

Workgroups of two students:
Task 6: “WOOD JOINERY”
Task 7: “DESIGN OF A CHAIR”
Task 8: “CUT AND FOLD METAL”
Task 9: “BLOWING GLASS”
Task 10: “TELL THE STORY”

PROFESSOR BIO

Professor: **ANDREA CARUSO**
E-mail: acaruso@faculty.ie.edu

E-mail: acaruso@faculty.ie.edu

Professor Andrea Caruso earned his BA in Industrial Design at the Politecnico di Torino, Italy, with a Master course in design IED Madrid, Spain. He is founder of Ciszak Dalmas studio - www.ciszakdalmas.com - and La Clinica Design firm ased in Madrid - www.laclinicadesign.com - working in the fields of product, installation, interior design and creative direction. Parallel to his practice he is as a visitor professor at various institutions such as Politecnica di Madrid, Universidad Europea EUM, Francisco de Vitoria and IED Madrid.

OTHER INFORMATION

OFFICE HOURS

Office hours: Office hours will be held by appointment on Friday.

Contact details: acaruso@faculty.ie.edu

CODE OF CONDUCT IN CLASS

1. **Be on time:** Students arriving more than 5 minutes late will be marked as “Absent”.

Only students that notify in advance in writing that they will be late for a specific session may be granted an exception (at the discretion of the professor).

2. **If applicable, bring your name card and strictly follow the seating chart.** It helps faculty members and fellow students learn your names.

3. **Do not leave the room during the lecture:** Students are not allowed to leave the room during lectures. If a student leaves the room during lectures, he/she will not be allowed to re-enter and, therefore, will be marked as “Absent”.

Only students that notify that they have a special reason to leave the session early will be granted an exception (at the discretion of the professor).

4. **Do not engage in side conversation.** As a sign of respect toward the person presenting the lecture (the teacher as well as fellow students), side conversations are not allowed. If you have a question, raise your hand and ask it. If you do not want to ask it during the lecture, feel free to approach your teacher after class.
If a student is disrupting the flow of the lecture, he/she will be asked to leave the classroom and, consequently, will be marked as “Absent”.

5. **Use your laptop for course-related purposes only.** The use of laptops during lectures must be authorized by the professor. The use of Social Media or accessing any type of content not related to the lecture is penalized. The student will be asked to leave the room and, consequently, will be marked as “Absent”.

6. **No cellular phones:** IE University implements a “Phone-free Classroom” policy and, therefore, the use of phones, tablets, etc. is forbidden inside the classroom. Failing to abide by this rule entails expulsion from the room and will be counted as one absence.

7. **Escalation policy: 1/3/5.** Items 4, 5, and 6 above entail expulsion from the classroom and the consequent marking of the student as “Absent.” IE University implements an “escalation policy”: The first time a student is asked to leave the room for disciplinary reasons (as per items 4, 5, and 6 above), the student will incur one absence, the second time it will count as three absences, and from the third time onward, any expulsion from the classroom due to disciplinary issues will entail 5 absences.