
DESIGN STUDIO in Fall 2019 (AR1091FB3)

Course Code	AR1091FB3	Professor(s)	Stéphane Treilhou
Prerequisites	None	Office Number	
Class Schedule	T: 09:00-11:55 in C-501	Office Hours	
Credits	4	Email	streilhou@aup.edu
Semester	Fall 2019	Office Tel. Ext.	

Course Description

General Topic: The goal of this course is give an introduction to the fundamental concepts of 3-D design. The students will acquire skills while building a variety of models and prototypes. The stress will be on the creative process behind the artifact production.

Questions that will be explored:

- What is design?
- What is a model?
- How can the making of prototypes help us better understand the built environment?
- How can we use different materials “properly?”
- Models and simulations as **mental tools**.
- How do we develop models in different media?
- What can be modeled?
- What are the **limits of design**?
- Creativity and how we might be able to **increase it**?

The course is cross-listed with **Dr Georgi Stojanov’s Social Robotics CS2021**. This pair of

courses explores two complementary ways of creating stuff. The first one (in AR1003B) is by using different materials (play-doh, clay, wood, carton, pen and paper) to produce abstract and representational sculptures and drawings. In CS2021 we will be designing virtual objects (movies, web pages, computer programs). We will then go on to compare the two approaches by analysing the creative processes, writing narratives about them, and identify what are their similarities and the differences.

This FirstBridge will culminate in merging the “material” and “virtual” approach by learning to design engaging interactive machines or robots using Lego Mindstorms robotic kits as a starting point. These robo-sculptures will move and interact with humans or among themselves in order to do things that are useful, funny, beautiful, or all of the above!

The assessment comprises:

- weekly homework assignments
- in class tests;
- midterm review
- final review
- final project (may be done in groups)

STUDENT LEARNING GOALS:

At the end of the course, students will:

- + learn how to create simple 3-D toys and models
- + learn how to create simple interactive machines
- +have a general understanding of the role materials play for basic design

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- +have acquired critical skills to assess objects designed by others
 - +have an appreciation of the creative process in the arts and sciences
 - +have an informed opinion about the current state of design and the marketing of design objects
 - +(in context of the FB learning community) be able to comprehend the connections between creative design and the scientific world

Course Learning Outcomes

General Education

The general education program at AUP consists of four requirements: Speaking the World, Modeling the World, Mapping the World, and Comparing Worlds Past and Present.

This course can be used to fulfill the Modeling the World requirement and as such has the following learning objectives:

Students will learn diverse ways of approaching design problems.

Students will learn how to control various materials used for design products.

Students will be better equipped to judge the contemporary world of design after this FirstBridge.

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Course Outline

Individual Topics covered over 14 weeks may include:

1. Wire Self

With three meters of 0.9 gauge wire and the help of pliers create a 3-D abstract representation of yourself and present your “wire me” to the class.

Homework: Using any materials, create a sculptural “anti-self” that shows what you consider yourself not to be.

2. Bristol Paper Animal

With Bristol paper and the help of a mat knife, ruler, and compass (but NO adhesives) create a sculpture of a four legged mammal standing on three or four of its legs. The sculpture must be as anatomically correct as possible, volumetric, and not made using origami techniques.

3. Transformer

With found volumetric objects (plastic bottles, small boxes, etc) and various types of hinges that may be purchased, create a two-in-one transformable toy. The toy must remain intact (monoblock, with no removable/replaceable pieces) at all times.

4. Automata Study

The class will visit the Musée des Arts et Métiers and draw the automata on display.

5. Moving Models

Using appropriate found materials create a vehicle that can move in any possible way through air or water or on land for a minimum of 45 seconds. All motors must be made by the students.

6. Sense Enhancer

Chose one or several of the five senses and create an instrument that stimulates the chosen senses.

7. Sculpting Clay

Three approaches to sculpting a life-sized hand will be taught. The first method is completely additive: small balls of clay will be stuck together while measurements of a human hand are taken in order to make a one to one scale sculpture. The second method is entirely subtractive: a block of clay slightly larger than the size of a hand is cut until the one to one sculpture is created. The third method is a combination of the two previous methods.

8. Figure Studies

Using both the additive and subtractive method small figure sculptures will be made from a live model and/or skeleton.

9. Mould Making

Basic mould making techniques with rubber and plaster will be taught.

10. New Creatures from Old Ones

Bones from a bird (chicken, duck, turkey, etc) will be saved and cleaned. The cleaned bones will

be assembled with wire and glue in a way that does not resemble the original creature but looks like the skeleton of a new species.

11. **Fleshing out the Creature**

The new species will be sculpted in clay using the created skeleton as a guide to give volume and form to the musculature.

12. **Bringing the Creature to Life – The Final Project**

Textbooks

This course doesn't have any textbook.

Attendance Policy

Students studying at The American University of Paris are expected to attend ALL scheduled classes, and in case of absence, should contact their professors to explain the situation. It is the student's responsibility to be aware of any specific attendance policy that a faculty member might have set in the course syllabus. The French Department, for example, has its own attendance policy, and students are responsible for compliance. Academic Affairs will excuse an absence for students' participation in study trips related to their courses.

Attendance at all exams is mandatory.

IN ALL CASES OF MISSED COURSE MEETINGS, THE RESPONSIBILITY FOR COMMUNICATION WITH THE PROFESSOR, AND FOR ARRANGING TO MAKE UP MISSED WORK, RESTS SOLELY WITH THE STUDENT.

Whether an absence is excused or not is ALWAYS up to the discretion of the professor or the department. Unexcused absences can result in a low or failing participation grade. In the case of excessive absences, it is up to the professor or the department to decide if the student will receive an "F" for the course. An instructor may recommend that a student withdraw, if

absences have made it impossible to continue in the course at a satisfactory level.

Students must be mindful of this policy when making their travel arrangements, and especially during the Drop/Add and Exam Periods.

Grading Policy

Assessment Components:

(30%) Homework

(20%) Laboratory work

(10%) Mid-term review

(20%) Final review

(20%) Final Project

Grade Scales:

[A+, A, A-] = [95, 93, 90] %

[B+, B, B-] = [86, 82, 78] %

[C+, C, C-] = [72, 63-71, 57-62] %

[D+, D, D-] = [56, 52, 48] %

[F] = [47 or below] %

Other
