

Fall 2018

ID 263-001: Industrial Design Studio I

Jose Alcala

Follow this and additional works at: <https://digitalcommons.njit.edu/sad-syllabi>

Recommended Citation

Alcala, Jose, "ID 263-001: Industrial Design Studio I" (2018). *School of Art and Design Syllabi*. 25.
<https://digitalcommons.njit.edu/sad-syllabi/25>

This Syllabus is brought to you for free and open access by the NJIT Syllabi at Digital Commons @ NJIT. It has been accepted for inclusion in School of Art and Design Syllabi by an authorized administrator of Digital Commons @ NJIT. For more information, please contact digitalcommons@njit.edu.

NJIT Fall 2018
Weston Hall – 758 / 754

Monday: 1:00 PM - 5:35 PM
Thursday: 1:00 PM - 5:35 PM

“A human being should be able to change a diaper, plan an invasion, butcher a hog, conn a ship, design a building, write a sonnet, balance accounts, build a wall, set a bone, comfort the dying, take orders, give orders, cooperate, act alone, solve equations, analyze a new problem, pitch manure, program a computer, cook a tasty meal, fight efficiently, die gallantly. Specialization is for insects.”

-Robert A. Heinlein, Lazarus Long

Course Description

Industrial Design is the activity of creating and humanizing the tools that help us to interface with our environment, expand our breadth of experiences, and deepen our relationship with the world around us. It couples the innate human activity of “making” with the desire to give meaning and purpose to what we create.

The Industrial Design Studio will introduce you to the fundamental concepts, ideas and methods involved with the human activity called Design as well as introduce you to the skills and tools needed to communicate them verbally, two-dimensionally and three-dimensionally. You will explore, analyze and give shape to the objects within the human ecology as well as challenge yourself and existing paradigms by searching unlikely places for insight and inspiration. In order to accomplish this you will need to be part artist, philosopher, sociologist, psychologist, ethnographer, anthropologist, inventor, craftsperson, engineer, scientist, researcher, writer, poet, salesperson and, most importantly, magician.

This semester we will engage in a series of exercises that will build upon each other and culminate in a final product. The exercises will vary in scale, duration, complexity and intent with the concentration on developing critical thinking skills and exploring creative problem-solving methodologies within a context of “making”. By looking at the user’s, as well as the designer’s, point of view we aim to develop and nurture ideas and concepts into viable, necessary and beautiful designs within a general atmosphere of analysis and reflection. Feedback will occur in the form of lively intellectual discourse and critique.

There will be various prototyping demonstrations as well as possible guest appearances.

Course Objectives

- Develop a depth and understanding of three-dimensional design
- Introduce you to lateral thinking techniques
- Develop 2D and 3D ideation skills
- Introduce you to prototyping methods, techniques and tools
- Hone research, critical thinking and presentation skills
- Produce a presentation and product that demonstrates these acquired skills

Your Responsibility

- Everyone will play the role of instigator, facilitator, agitator and objective observer. You will be required to present your research and experiments as well as discuss methodology and process throughout the semester and the rest of the class will be responsible to provide feedback and discussion. Your grade is heavily weighted on class participation, so come prepared to talk.
- You are responsible for documenting your work in the form of digital images. You are to compile and submit a CD of digital images to me on the final day of class. All work must also be posted on Kepler3 at the end of the semester. **This is mandatory – failure to do so may result in a failing grade for the class.**
- Regular attendance is expected. When possible, please give advance notice of your absence. NJIT requires attendance for **ALL** students. After 3 recorded absences, your grade will be lowered by one-half ($\frac{1}{2}$) grade point for each additional absence, if you are not carrying a medical, school or religious related excuse. No excuses will be accepted without a written note from the Dean or a doctor. Students with particular needs and foreseen absences should present them to their instructor within the first week of class.
Attendance for student athletes: No student athlete may miss any regularly scheduled classes for any practice activities. This means students can neither miss nor leave class early (or arrive late) to attend a practice. While student athletes may miss class when participating in intercollegiate competition, it is the responsibility of the student athlete to proactively inform the instructor well in advance to make appropriate arrangements to complete or make up any assignments or exams in a timely fashion.
- Lateness will not be tolerated. Five lates will lower your grade by one-half ($\frac{1}{2}$) grade point.
- Everyone must have an active e-mail address. You can receive a free e-mail address and access to the Internet from NJIT.
- Academic integrity and honesty are of paramount importance in this class. The NJIT “University Code on Academic Integrity” will be upheld and any violation can, and will be, brought to the immediate attention of the Dean of Students by either a faculty member or student.

You must have the following available to you in the studio at all times:

- a box of push pins
- an 18” x 24” newsprint sketch pad and drawing implements
- a bound journal / sketchbook of your thoughts, sketches, and research throughout the semester
- Non-hardening modeling clay
- cameras, video cameras, tape recorders, etc. (optional)
- a sense of humor

You will be asked throughout the semester to bring in project-specific supplies, materials and tools.

Grading

Final grade will be based on the following criteria: Level of effort and commitment, quality of work, reading assignment comprehension, class participation, project progress, timely submissions, personal growth, attendance and courage.

- All homework assignments must be completed and submitted on time in order to meet the requirements of the course.
- A CD of digital images of ALL your work for the semester must be submitted to me at the end of the semester (these will not be returned).
- All work must be posted on Kepler before the end of the semester. Failure to do so will result in a failing grade.

Grade distribution:

- Participation in class discussions and critiques: 20%
- Project development: 30%
- Final project: 40%
- Documentation of Work: 10%

Required Reading

- There will be project specific reading assignments consisting of excerpts from books, periodicals, journals, and on-line articles handed out throughout the semester. You are expected to come prepared to engage in a round table discussion of the reading material in the following class.
- *The New York Times*, with particular attention to the Business (Patents, Information Industries), Technology, Science, Health (Research), Arts and Style Sections as well as all of Sunday's paper and magazine.

Contact Information

Email: jose.m.alcala@njit.edu

Office Location: Weston 679

Office Hours: Mondays and Thursdays 12:00 – 1:00

Weekly Schedule - Fall 2018

Studio Instructor: Jose Alcalá
 Industrial Design Studio I
 ID 263

3D and the Handheld Object

Week	Day	In-Class Activities	Assignment	Project Focus
1	6 September	Introduction · Education at NJIT · Course Expectations In-class Assignment: Primer Project 1 - Self Portrait 3D - 5 adjectives, 1 sculpture each	Primer Project: Self Portrait 3D Assignment: Complete sculpture + 2 empathic drawings	Self - Portrait 3D
	10 September	Review Project 1: Self Portrait 3D Assignment: Complete sculpture + 2 empathic drawings	Project 2: SubCulture Phase: Research Assignment: 10 Minute Presentation	
2	13 September	Review Project 2: SubCulture Phase: Research Assignment: 10 Minute Presentation	Project 2: SubCulture Phase: Morphology Assignment: 3 Models + 1 Drawing	3D Relationships and Analysis
	17 September	Review Project 2: SubCulture Phase: Morphology Assignment: 3 Models + 1 Drawing	Project 2: SubCulture Phase: Morphology Assignment: redo 1 model + 2 new models	
3	20 September	Review Project 2: SubCulture Phase: Morphology Assignment: redo 1 model + 2 new models	Project 2: SubCulture Phase: Morphology Assignment: Choose 2 refine and remake high quality in white and mounted	
	24 September	Review Project 2: SubCulture Phase: Morphology Assignment: Choose 2 refine and remake high quality in white and mounted	Project 2: SubCulture Phase: 3D Analysis Assignment: TBD	
4	27 September	Review Project 2: SubCulture Phase: 3D Analysis Assignment: Drawing	Project: Parasitic / Symbiotic Relationships Project 2: SubCulture Assignment: TBD	
	1 October	Review Project 2: SubCulture Phase: 3D Analysis Assignment: TBD	Project 2: SubCulture Phase: 3D Analysis Assignment: TBD	
5	4 October	Review Project 2: SubCulture Phase: 3D Analysis Assignment: Drawing	Project 2: SubCulture Phase: 3D Analysis Assignment: TBD	
	8 October	Review Project 2: SubCulture Phase: 3D Analysis Assignment: TBD	Project 2: SubCulture Phase: 3D Analysis Assignment: TBD	
6	11 October	Final Presentation Project 2: SubCulture Phase: 3D Analysis		

7	15 October	In-class Assignment: Ideation sketching to be presented at end of class	Project 2.1: Eat or be Eaten Phase: Ideation Assignment: TBD	Handheld Object: Eat or be Eaten Utensils
	18 October	Review Project 2.1: Eat or be Eaten Phase: Ideation Assignment: Drawing	Project 2.1: Eat or be Eaten Phase: Design Development Assignment: TBD	
8	22 October	Review Project 2.1: Eat or be Eaten Phase: Design Development Assignment: TBD	Project 2.1: Eat or be Eaten Phase: 3D Modeling and Print Assignment: TBD	
	25 October	Review Project 2.1: Eat or be Eaten Phase: 3D Modeling and Print Assignment: Drawing	Project 2.1: Eat or be Eaten Phase: Finishing Assignment: TBD	
9	29 October	Final Review: Project 2.1: Eat or be Eaten		
	1 November	New Project Introduction Project 2.2: Object redesign Phase: Hack & Document Assignment: Ideation Drawing	Project 2.2: Object redesign Phase: Hack & Document Assignment: TBD	
10	5 November	Review Project 2.2: Object redesign Phase: Hack & Document Assignment: TBD	Project 2.2: Object redesign Phase: Ideation Assignment: TBD	
	8 November	Desk Crits Project 2.2: Object redesign Phase: Ideation Assignment: Drawing	Project 2.2: Object redesign Phase: Design Development Assignment: TBD	
11	12 November	Desk Crits Project 2.2: Object redesign Phase: Design Development Assignment: TBD	Project 2.2: Object redesign Phase: Design Development Assignment: TBD	
	15 November	Desk Crits Project 2.2: Object redesign Phase: Design Development Assignment: Drawing	Project 2.2: Object redesign Phase: Design Refinement Assignment: TBD	
12	19 November	Desk Crits Project 2.2: Object redesign Phase: Design Refinement Assignment: TBD	Project 2.2: Object redesign Phase: Design Refinement Assignment: TBD	
	22 November	No Class Thanksgiving		
13	26 November	Desk Crits Project 2.2: Object redesign Phase: Modeling and Prototyping Assignment: TBD	Project 2.2: Object redesign Phase: Modeling and Prototyping Assignment: TBD	
	29 November	Desk Crits Project 2.2: Object redesign Phase: Modeling and Prototyping Assignment: TBD	Project 2.2: Object redesign Phase: Modeling and Prototyping Assignment: TBD	
				Handheld Object: Hack and Redesign

14	3 December	Final Review (Date and Location TBD) Project 2.2: Object Redesign	
	6 December	Submit High Resolution Images and Upload to Kepler	