

Fall 2018

# ID 363-001: Industrial Design Studio III

Charles Constantine

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**ID-363** Industrial Design Studio III Charles Constantine  
NJIT Fall 2018

Weston Hall- room 768

**Bulletin Description:**

Studio

Monday: 1PM - 5:45 PM Thursday: 1PM – 5:45 PM

Furniture and lifestyle products (user-centered, fabrication/manufacturing)

Prerequisite: ID 263. This project specific studio will address real-world needs, parameters, and research as it applies to market trends and industry focused development. Companies and entrepreneurs will be invited to submit industry or need specific project briefs to the studio which will become the project for the semester. The students will experience first-hand the challenges of designing, building and testing within a real-life, interdisciplinary framework. The company will participate as sponsor, mentor and partner to the students.

**Course Description:**

Through a self-directed process you will explore furniture and lifestyle products. This class will require you to use all of your skills as designers to develop a working prototype.

You will hit these 3 bench marks:

A design driven process (documented)

A system of design that grow out of your process (documented) A working prototype

You as designers will define your own design direction. Through weekly presentations you will check in with your peers and through weekly desk critiques you will check in with me.

This course will require you to go beyond the desk, the classroom and the internet to interact with experts and the real world. It will only be through real world interaction that you the designer will be able to identify, analyze and implement solutions for your design.

This course will incorporate lectures, group discussions, readings, critiques and weekly updates.

**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 (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 (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)

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%

### **Grades<sup>2</sup>**

The following grades will be used:

A: Superior

B+: Excellent

B: Very Good

C+: Good

C: Acceptable

D: Minimum

F: Inadequate

**Required Reading:**

There will be project specific reading assignments consisting of excerpts from books, periodicals, journals, and online 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.

**Furniture: A Concise History, Edward Lucie-Smith**

<https://www.amazon.com/Furniture-Concise-History-World-Art/dp/0500201722>

**The Anarchist's Design Book (Digital Copy), Christopher Schwarz**

<https://lostartpress.com/products/the-anarchists-design-book>

**Siddhartha, Herman Hesse**

[https://www.amazon.com/Siddhartha-Novel-Hermann-Hesse/dp/0553208845/ref=sr\\_1\\_5?s=books&ie=UTF8&qid=1536241035&sr=1-5&keywords=Siddhartha&dplD=5111eHtGLoL&preST=\\_SY291\\_BO1,204,203,200\\_QL40\\_&dpSrc=srch](https://www.amazon.com/Siddhartha-Novel-Hermann-Hesse/dp/0553208845/ref=sr_1_5?s=books&ie=UTF8&qid=1536241035&sr=1-5&keywords=Siddhartha&dplD=5111eHtGLoL&preST=_SY291_BO1,204,203,200_QL40_&dpSrc=srch)

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Office Hours: By appointment

**ID 363 Studio III Charles Constantine 09.06.2018**

**FURNITURE:** Furniture is the visualization of a culture's mores and myths. It can embody and explain cultural habits, addictions and afflictions. This course provides the student with the opportunity to conceive of and execute a piece of furniture from working drawing to full scale working model. It will embody the three most important concepts of design: Intention, Perception and Conception. The students learn the historical, mechanical, economic and cultural forces that form furniture.

**COURSE OUTLINE:** This course investigates the origin and development of furniture design from Thonet to Sottsass through research and presentations. Students study furniture and place and their relationships by researching a particular designer and the time and place the pieces were executed. The culmination of the course is an original furniture design developed and articulated by the student. Presentations and field trips to designers studios are an important component of the course work.

**EXERCISE 1: DESIGNER PROFILE:** Research and presentation of a furniture style, designer or movement. Each student researches and develops a presentation that explains not only a piece of furniture but the context in which it was designed with special emphasis on the music, food, major cultural events and news of the times. Size 18 X 24 inches.

**EXERCISE 2: ELEGANT SOLUTIONS:** All students come to a class with preconceived ideas or sketches. Use these as starting points for the full size working drawings.

**EXERCISE 3: FULL. SIZE WORKING DRAWING:** Students are asked to draw a piece of furniture full size, expressing the emotional feelings the furniture is to evoke; stressing the relationships between context and individual expression. Students are encouraged to design and develop powerful visual solutions to furniture in context.

**EXERCISE 4 "TAG":** Through the use of prose or poetry students produce a critique of their designs, finding a form that best expresses the story behind the furniture. This tag allows others to understand how and why the piece of furniture was conceived.

**EXERCISE 5 DESIGN BRIEF:** Design Brief Outline: A-Product positioning: B-Design objectives: C-General benefits: D-Scope: E-Specific benefits: F-Code compliance: G-Completion; H-Product link objectives: I-User profile: J-Expected volume: K-Manufacturers objectives: L- Timing objectives: "Activities of Daily Life" gerunds, action words such as sleeping,

cooking, sewing, computing, typing, jumping help designers visualize tasks. Designers support the activities of every day life .

**EXERCISE 6 "FULL SIZE PAPERBOARD MOCK-UP":** Structural analyses of models; Paper, foam-core and cardboard when used as mock-Up materials behave structurally very much like i stronger and more difficult to manipulate materials such as steel or wood. By observing how certain parts of the paper models succeed and fail much is learned as construction proceeds towards a final model.

**EXERCISE 7: SCALE MODELS:** Once a more or less successful full scale model has been constructed study models can be built. An understanding of scale has been achieved with the full-scale model which can be carried over into a scale model. Draw the full size model before you construct the scale model, try to develop a rhythm between the use of models and drawings. Investigations and information that can be understood from models is complimented by drawing and vice versa.

**EXERCISE 8- MATERIALS & PROCESSES:** Working on models whether full or scale and thinking about the materials and processes that make the idea a reality imposes criteria that can have significant impact on the form the object takes. Some students start with materials as the basis for their design, others do not. Materials can help visualize ideas by providing concrete limits and criteria.

**EXERCISE 9- PROJECT PROFILE OUTLINE:** This exercise requires the students to answer questions in writing about the piece they will build and permits an evaluation of areas that are unclear or need development. PROJECT TITLE; OBJECTIVES; RESULTS; FUNCTION; MATERIALS & PRODUCTION TECHNIQUES; DESIGN; COMMENTS.

**EXERCISE 10 "FIELD TRIPS":** Students make trips to factories and showrooms, broadening their point of view.

**EXERCISE 11 SHOP DRAWINGS:** "Concurrent Engineering" Technical detailing. Shop drawings are drawings that someone else can read, that helps construct a prototype. These are "working" drawings.

**EXERCISE 12 PROTOTYPES:** "How do you make it?" What does it look like? This is the prototypical form. The prototype is the first fully functional piece.

**EXERCISE 13 PRESENTATION:** Prototypes do for presentation & integration of "tags" and "Verbal" presentation Prototypes/Objectives/Results/Function. An Exhibition of - A full size piece of furniture 8- A set of full scale drawings/sketches C-"TAG" attached to the furniture