

ME 474 - SENIOR DESIGN PROJECTS
LECTURE and LAB SCHEDULE
FALL 2020

Prepared by Richard LaGrotta

The second course in the Senior Design Project is also designed to cover important topics that are essential for a design and fabrication process. In this course, in order to provide students with the materials not ordinarily found in previous courses or textbooks, a number of lectures of a diverse nature are provided. Such lectures are made by invited speakers from industry whenever possible, and the rest are provided by faculty experts. Students are required to write a short, accurate and complete summary of each lecture in their logbook. The schedule is given below.

DATE	DAY	TIME	LAB/LECTURE	SUBJECT
27-Aug	Thursday	3 to 5	Lecture	Material Selection, Detailed Drawings
1-Sep	Tuesday	2 to 5	Lab	WORKSHOP ORIENTATION REVIEW OF PROJECTS, WORK ON FINAL DRAWINGS ORDER LONG LEAD ITEMS
3-Sep	Thursday	3 to 5	Lecture	DESIGN FOR AUTOMATION DESIGN FOR ASSEMBLY PROTOTYPE BUILD AS IT RELATES TO PRODUCTION BUILD
8-Sep	Tuesday	2 to 5	Lab	REVIEW OF MATERIALS AND CONSTRUCTION TECHNIQUES
10-Sep	Thursday	3 to 5	Lecture	DESIGN FOR AUTOMATION DESIGN FOR ASSEMBLY PROTOTYPE BUILD AS IT RELATES TO PRODUCTION BUILD
15-Sep	Tuesday	2 to 5	Lab	COMPLETE FINAL DRAWING
17-Sep	Thursday	3 to 5	Lecture	DESIGN VERIFICATION, SCHEDULES COST ESTIMATES
22-Sep	Tuesday	2 to 5	Lab	PEER REVIEW OF FINAL DRAWINGS
24-Sep	Thursday	3 to 5	Lecture	QUALITY CONTROL, SAFETY AND DESIGN DEFECTS
29-Sept	Tuesday	2 to 5	Lab	ORDER PARTS
1-Oct	Thursday	3 to 5	Lecture	LIABILITY AND DESIGN
6-Oct	Tuesday	2 to 5	Lab	BUILD MODELS REVISE DRAWINGS
8-Oct	Thursday	3 to 5	Lecture	RAPID PROTOTYPING
13-Oct	Tuesday	2 to 5	Lab	BUILD MODELS REVISE DRAWINGS
15-Oct	Thursday	3 to 5	Lecture	CAD/ CONCURRENT DESIGN
20-Oct	Tuesday	2 to 5	Lab	BUILD MODELS REVISE DRAWINGS
22-Oct	Thursday	3 to 5	Lecture	CONTENT OF FINAL REPORT AND FINAL PRESENTATION
27-Oct	Tuesday	2 to 5	Lab	BUILD MODELS REVISE DRAWINGS
29-Oct	Thursday	3 to 5	Lecture	SAFETY FACTORS AND HUMAN FACTORS ENGINEERING
3-Nov	Tuesday	2 to 5	Lab	BUILD MODELS REVISE DRAWINGS
5-Nov	Thursday	3 to 5	Lecture	PATENTING A DESIGN
10-Nov	Tuesday	2 to 5	Lab	COMPLETE BUILD OF MODEL
12-Nov	Thursday	3 to 5	Lecture	SIMULATION OF MANUFACTURING PROCESS
17-Nov	Tuesday	2 to 5	Lab	START TESTING MODEL
19-Nov	Thursday	3 to 5	Lecture	PLANT LAYOUT AND MATERIAL HANDLING
24-Nov	Tuesday	2 to 5	Lab	FIRST DRAFT OF FINAL REPORT DUE FINISH TESTING

26-Nov	Thursday	3 to 5	Lecture	NO CLASS
1-Dec	Tuesday	2 to 5	Lab	DRY RUN OF FINAL PRESENTATION
3-Dec	Thursday	3 to 5	Lecture	ART OF PRESENTATION
8-Dec	Tuesday	2 to 5	Lab	FINAL PRESENTATION

Note: Some Lab classes will meet T-C4 the student shops in the Steinman Hall.

ME 474

**SENIOR DESIGN PROJECTS
Fall 2018**

Prof. Richard LaGrotta

ROOMS: On line, Steinman C36 and the Student Shop

**TUESDAYS, Steinman C36, and on line 2:00 – 4:50, Steinman C36, and on line 5:00 – 7:50
THURSDAYS, Lecture On line, 3:00 – 4:50**

**TEXT: Lecture notes: Richard LaGrotta
Engineering Design, Rudolph Eggert, Pearson Prentice Hall, 2005
The Mechanical Design Process, Ullman, David G. McGraw-Hill, New York,
1992
Also, companies catalogs and Mechanical Engineering Handbooks will be used.**

Office: T-218

Tel: 973-879-5271

EMAIL: rlagrotta@ccny.cuny.edu

Office Hours: Tuesdays and Thursdays: by appointment or after class

Grading: Relative weight of course components

Professional Conduct:

Attendance,	15%	Individual
Team work	5%	Individual
Initiatives, peer reviews,	5%	Team
Modification of the design	5%	Team
Fabrication/prototype	20%	Team/individual
Final Presentation	15%	Team/Individual
Final Report	35%	Team

Approximately 60% of the grade will depend on team performance, leaving 40% for individual efforts.