

Exact dates and topics subject to change

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RED- Team Project Assignments

Session	DATE	Topic	Class activity	Assignment	Hand-in
1	Sep 4	Introduction to course, the design process, where do new products come from?	Exercise in ideation- dry run: how to weigh your head, Dorm	Intersection Drawing	
2	Sep 9	SCAMPER Project List	SCAMPER on skateboard, dishwasher	SCAMPER list for dishwasher	Dorm Drawing
3	Sep 11	Engineering Design Process	Present SCAMPER DW in class Choose Project, BREAK INTO TEAMS	Select project and write problem definition.	SCAMPER list for dishwasher
4	Sep 16	Prototyping	Team project Discuss Problem Definition SCAMPER project	SCAMPER project	Project Definition Draft
FINAL PROJECT CHOICES AND TEAM END of 4 th SESSION					
5	Sep 18	Reverse Engineering	Present SCAMPER for project Determine Critical Path	Morph/Pugh charts- critical path	Final Project Definition+ SCAMPER
6	Sep 23	Injection Molding, 3D printing	3D cord organizer		
7	Sep 25	Sheet Metal and Machining			Morph/Pugh Critical Path
8	Sep 30	Gibbscam in B05, bring laptop, use citrix	Critical Path Readout 3D cord organizer should be submitted to printers by today	Whistle	

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9	Oct 2	Materials Selection			
10	Oct 7	Adhesives Good vs Bad Design Overview	Demo Soft Prototypes		
11	Oct 9	Form as a Material		James Bond	Cord organizer
12	Oct 15	Mechanisms I			
13	Oct 16	Costing	Critical Path Demos	Calculate manufacturing cost of one or two parts in final project	
14	Oct 21	Mechanisms II	Demo your whistles		
15	Oct 23	CREO 4 BAR (In ECL)!		4-bar mechanism	James Bond
16	Oct 28	Interim project presentation			Calculate manufacturing cost of one or two parts in final project Whistles
17	Oct 30	Arduino I—Digital IO	Last chance to modify design	In-class circuits	

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Sess ion	DATE	Topic	Class activity	Assignment	Hand-in
18	Nov 4	Arduino II- Analog IO	Build Time	In-class circuits	
19	Nov 6	Arduino McGyver			
20	Nov 11	Safety Creo Structures CAD practice			4-bar mechanism (last individual assignment)
21	Nov 13	Thermal properties James Bond Solution			
22	Nov 18	CREO Thermal analysis Design for Manufacturing	Build Time		
23	Nov 20	Quality Control M&M QC Experiment	Build Time		
24	Nov 25	4 bar Assignment Feedback Design for Quality Project Presentation and Paper Guidelines Creo Gears and Belts, more 4Bar	Build Time		
Thanksgiving Break Nov 27-Dec 1					

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Session	DATE	Topic	Class activity	Assignment	Hand-in
25	Dec 2	Flex	Last build time		
26	Dec 4	Intellectual Property- the short version Course evaluations			
27	Dec 9	Flex			
28	Dec 11	Project presentation with FINAL prototypes in class	Chance to incorporate project feedback into final report		Final project report submitted- paper and online