

ME349
Engineering Design Projects
Fall, 2009 Syllabus

Date	Discussion Topic(s)	Assignments	Deliverables
9/3	Course introduction, Thinking preferences exercise, Discussion of class projects	Read: Introduction To Course Design Projects Team Building Keeping a Design Notebook Design Process Outline Project Planning	Define design team
9/8	Set Design Team, Project planning, Design notebook	Background research Define customer base Read: Example of a Task Report	
9/10	Standards and Patents	In class presentation Read: Design Proposal	Choose project
9/15	Introduction to QFD Process (customer driven design)	Develop Problem Statement, Define customer needs and design specifications Read: QFD Method Product Design Specification Requirements Example	Task Report
9/17	Function Development	Read: Function and Concept Overview Function Development	Design Proposal Due
9/22	Scheduled Design Review	Read: Concept Generation Creative Problem Solving	Task Report
9/24	Function/Concept Generation TRIZ Method		
9/29	Brainstorming techniques	Read: Concept Evaluation	Task Report
10/1	Concept evaluation		

10/6	Generate design ideas from concepts	Read: Preliminary Design Report	Task Report
10/8	Work Period	Read: Material Selection	
10/13	Material Selection		Task Report
10/15	Work Period	Read: FMEA: Failure Modes Effects Analysis	
10/20	Failure Modes Effects Analysis		Task Report, Preliminary Design Due
10/22	Work Period	Read: Design for Manufacturability Design for Assembly Handout on Using DFMA software	
10/27	Design for Manufacturability	DFMA 9.3	Task Report
10/29	Design for Assembly		
11/3	Work Period	Read: Product Liability	Task Report
11/5	Product Liability	Read: Final Design Report	
11/10	Ergonomics		Task Report, Notebook evaluation
11/12	Work Period		
11/17	Work Period		Task Report
11/19	Work Period		
11/24	Work Period		Task Report
	*****Thanksgiving Break*****		
12/1	Work Period		Task Report
12/3	Final Report Due by Noon 12/11		Report, drawings, etc.
12/8	Work Period		
12/10	Presentations		Presentation, prototype
12/11	Field Trip to Capital Brewery		3:00 in Middleton
12/15	Final details, evaluations, etc.		Notebooks to my office, Evaluation1 , Evaluation2