

Engin 103 March 3, 2011 back to e-syllabus	Topics: Project 1 -Part I Presentations Logbook questions
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Project 1 Part I Presentations: Design for System Predictability

Project 1 leaders: please copy this page and fill in your team response below. Then save as a web page: name “p1p1.html” and upload to your ftp *files* folder.

Section 1 (9:30 AM)

Team #	Picture of system <small>*If you took a picture of the system you can insert it here, otherwise leave it blank, we will take care of it.</small>	a) System name b) What are the input X and output Y along with their units	c) How did your design make sure the system can produce at least 10 pairs of distinctive values for X and Y d) How did your design reduce to a minimum any uncertainty in the system so to increase its predictability	e) What mathematical models may work for this system using the Spreadsheet? f) Which model you think will best describe the system, why?	
1 section 1					
2 section 1					
3 section 1			a)	b)	
4 section 1					
5 section 1					
6 section 1					
7 section 1					
8 section 1					
9 section 1					
10 section 1					

Section 2 (2:00 PM)

Team #	Picture of system <small>*If you took a picture of the system you can insert it here, otherwise leave it blank, we will take care of it.</small>	a) System name b) What are the input X and output Y along with their units	c) How did your design make sure the system can produce at least 10 pairs of distinctive values for X and Y d) How did your design reduce to a minimum any uncertainty in the system so to increase its predictability	e) What mathematical models may work for this system using the Spreadsheet? f) Which model you think will best describe the system, why?
<u>1</u> section 2				
<u>2</u> section 2				
<u>3</u> section 2			i)	j)
<u>4</u> section 2				
<u>5</u> section 2		a)		b)
<u>6</u> section 2				
<u>7</u> section 2				
<u>8</u> section 2				
<u>9</u> section 2				
<u>10</u> section 2				

Report for team #		
Submitted		On time Late
Uploaded electronic copy		Yes No
Project 1 web page		Yes No
Team participation table		Yes No
Report submitted (80)	Progress Report: p1pr.html (5)	
	p1p1.html (5)	
	p1p2.html (5)	
	Introduction (10)	
	Design/Building (25)	
	Analysis: Spreadsheets (20)	
	Conclusions (10)	
Good writing practices (20)	Grammar and presentation (5)	
	Logical arguments and structures (5)	
	Accurate, completeness; non-plagiarism (10)	
Deduction		
Project report total (100)		
Project presentation total (200)		Performance and Design (180):
		Web pages Parts I and II (20):
Project 1 total (300)		

Section 1

Project 1 -part I P&D/ Teams	1	2	3	4	5	6	7	8	9	10
Project completed (35)										
Design for predictability (15)										
Performance& readiness (25)										
Presentation (15)										
Total part I P&D (90)										

Section 2

Project 1 -part I P&D/ Teams	1	2	3	4	5	6	7	8	9	10
Project completed (35)										
Design for predictability (15)										
Performance& readiness (25)										
Presentation (15)										
Total part I P&D (90)										

Project 1 -part I P&D/ Teams	1	2	3	4	5	6	7	8	9	10
	Pendulum	Free Fall	Marble & Ramp	Rubber Band Propelled Car	Circuit with Resistors in Series	Adjustable Ramp & Toy Car	Pendulum	Marble Ramp	Parachute & Weights	Ball Launcher
Project completed (35)	35	35	35	35	35	35	35	35	35	35
Design for predictability (15)	15	12	14	12	15	13	13	14	13	14
Performance& readiness (25)	25	25	25	25	25	25	25	25	25	25
Presentation (15)	15	15	15	15	15	15	15	15	15	15
Total part I P&D (90)	90	87	89	87	90	88	88	89	88	89

Project 1 -part II P&D/ Teams	1	2	3	4	5	6	7	8	9	10
	Pendulum	Free Fall	Marble & Ramp	Rubber Band Propelled Car	Circuit with Resistors in Series	Adjustable Ramp & Toy Car	Pendulum	Marble Ramp	Parachute & Weights	Ball Launcher 2.0
Percentage error	1.31%	1.95%	8.90%	3.35%	0.51%	8.65%	0.89%	6.65%	5.90%	1.38%
Project completed (35)	35	35	35	35	35	35	35	35	35	35
Spreadsheet and data modeling (15)	20	15	17	17	20	15	12	17	14	14
System predictability (25)	24	24	19	21	25	19	25	19	19	25
Presentation (15)	15	15	15	15	16	15	15	15	15	15
Total part II P&D (90)	94	89	86	88	96	84	87	86	83	89

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LOGBOOK: [example of a logbook page](#)

- Use a quadrille notebook; number all pages; date all entries
- Write your notes for all activities, thoughts, problems and solutions, and learning conclusions related to Engin 103. You should write down progress, outcomes, and conclusions on projects and teamwork; conclusions from class work (including LabVIEW) and homework.
- In addition you should answer in the logbook all questions listed in these notes in blue, as shown below:

25) Sketch the system built by your team, describe the input and output variables on the sketch. What units will you measure these variables, and with what instruments.

26) Explain with a sketch the different design elements your team used to increase predictability. Explain what mathematical model will be the best to describe the system using the X and Y variables mentioned in the previous question.

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