

Mrs. Ramirez

- Office: ENGR 3.216
- Office Hours
 - MW 10:50 AM-12:05 PM
- E-mail: samantha.ramirez@utrgv.edu
- Website
 - faculty.utpa.edu/samantha.ramirez
- BlackBoard Learn will be utilized

Equipment

- Permanently bound notebook with gridded pages
- Ballpoint pen
- Safety glasses
- Appropriate lab clothing
- No Phones!

\square		Week	Lab			
		Rotation I - Introduction				
	S		Introduction, Safety, Group assignments			
\square		1	Introductory Lab			
$\left(\land \right)$	С	Rotation II - Characterization of a Metal/Alloy				
		2	Determination of Case Depth (1,2,3,4)			
	н	3	Tensile Properties of Metals (2,3,4,1)			
		4	Analysis of Failing Steel Bolts (3,4,1,2)			
		5	Identifying the Impact Transition Temperature of Steel (4,1,2,3)			
	E	Rotation III - Thermal Analysis of Materials				
		6	Residual Stress Approximation in Pipes (1,2,3,4)			
		7	Creep Testing of Polymers (2,3,4,1)			
	D	8	Jominy Test for Comparing Heat Treatability of Steels (3,4,1,2)			
		9	Phase Diagrams (4,1,2,3)			
		Rotation IV - Characterization of Polymers				
	0	10	Rate Dependence of Thermoplastic Polymers (1&2, 3&4)			
		11	Impact Testing of Thermoplastic Polymers (3&4, 1&2)			
	L	Rotation V - Final Project				
		12	Material Testing Assignment			
	E	13	Material Testing Assignment			
	-	14	Final Project Presentations			

Grades

- Reports (50%)
- Attendance (10%)
- Lab Notebook (15%)
- Final Project (15%)
- Quizzes (10%)

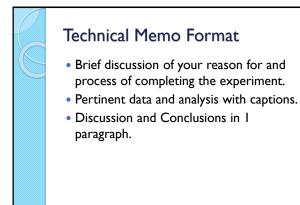
Grades • Reports (50%)

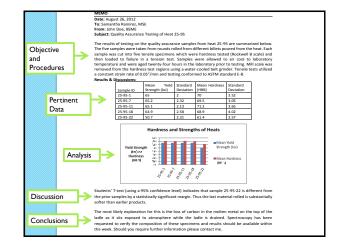
Written Reports

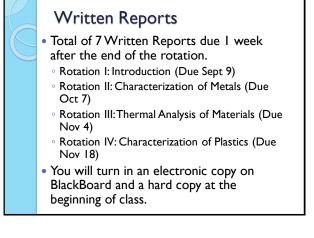
- Formal Lab Report
 - Multiple pages
 - Extensive analysis
 - Very thorough discussion
 - Relation of results to real world applications
- Technical Memo
 - I page only
 - Only necessary analysis
 - Brief discussion
 - Simple conclusions

Formal Lab Report

- Cover Page
- Background & theory
- Objective
- Experimental Setup & Procedures
- Results & Discussion
- Conclusions
- References
- Appendix



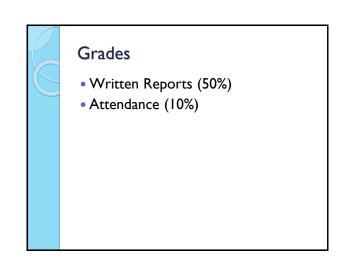




Late Written Reports

- 20 points off per day
- No written reports accepted after it is **I** week late.
 - $^{\circ}$ You will receive a 0 for that report.

Week	Lab	Output	Due			
	Rotation I - Introduction					
	Introduction, Safety, Group assignments					
I	Introductory Lab		9/9			
	Rotation II - Characterization of a Metal/Alloy					
2	Determination of Case Depth (1,2,3,4)	Memo	10/7			
3	Tensile Properties of Metals (2,3,4,1)	Graphs				
4	Analysis of Failing Steel Bolts (3,4,1,2)	Memo				
5	entifying the Impact Transition Temperature of Steel (4,1,2,3) Memo					
	Rotation III - Thermal Analysis					
6	Residual Stress Approximation in Pipes (1,2,3,4)	Memo	11/4			
7	Creep Testing of Polymers (2,3,4,1)	Results				
8	ominy Test for Comparing Heat Treatability of Steels (3,4,1,2)	Memo				
9	Phase Diagrams (4,1,2,3)	Diagram				
	Rotation IV - Characterization of a Polymer					
10	Rate Dependence of Thermoplastic Polymers (1&2, 3&4)	Report	11/18			
11	Impact Testing of Thermoplastic Polymers (3&4, 1&2)	Report				
	Rotation V - Final Project					
12	Material Testing Assignment					
13	Material Testing Assignment					
14	Final Project Presentations	Report, Slides	12/2			



Attendance

- Will be taken every week
- If late, you will be counted absent.
- I absence the entire semester
 - Only excused absences can be made up
- Any more than I absence, you will be dropped.
- Do not leave the laboratory during lab time.
- Remain with your group at all times.

Grades

- Written Reports (50%)
- Attendance (10%)
- Lab Notebook (15%)

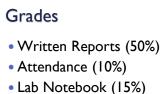
Lab Notebook

- Must be graded after each lab before you leave
 - Forgetting your notebook is not an excuse. You will not receive credit if you forget it.
- Only write in ballpoint pen
- Must be legible
- Scratch out with one line
- Do not write on scratch paper and recopy later.
- Make mistakes

Importance of a Lab Notebook

- A detailed record of all experimental work which includes study rationale, materials, methods, models, raw experimental data, incorrectly performed work, interpretations, calculations, conclusions, and future work
- Ensures that future workers may repeat the previously done work
- Verifies unclear results and intellectual property

	MECE 2140 Materials Laboratory													
				Lab No	tebook Gradin	g Sheet								
	Lab Day: Monday Tuesday Wednesday Thursday Friday Group #: 1 2 3 4													
	Name:													
			Objective (1 point)	Procedure (1 point)	Data (1 point)	Analysis (3 points)	Conclusions (3 points)	Shared Data with Class? (1 point)	Total Grade					
	Characterization of Metals	Case Depth												
		Tensile Testing												
		Failing Steel Bolts												
		Impact Test												
		Residual Stress												
	Thermal	Creep												
	Properties of Materials	Jominy												
		Phase Diagram												
	Characterization	Rate Dependence												
	of Polymers	Impact Test												
			Final Lab Notebook Grade											



• Quizzes (10%)

Quizzes

- Cover laboratory procedures and safe operating procedures for the lab you will be performing that day
- Must know terminology definitions
- Must be completed in BlackBoard Learn before lab time each week.

Grades

- Written Reports (50%)
- Attendance (10%)
- Lab Notebook (15%)
- Quizzes (10%)
- Final Project/Presentation (15%)

Final Project

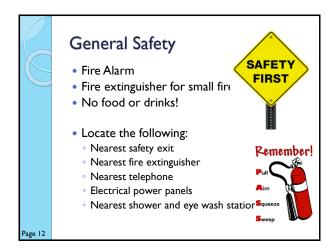
- Research project of your choosing but approved by me
- Final project presentation week of April 27, 2016
- Final project report and slides due at time of presentation

Plagiarism

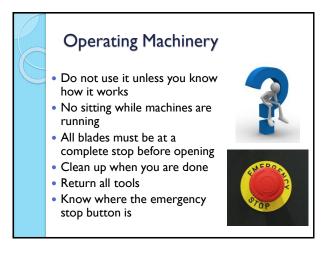
- DO NOT CHEAT!
- If caught, you will:
 - Lose credit for the work
 - Be reported to the Dean of Students

Acknowledgement of Receipt of Syllabus

• Take quiz in Blackboard by next week.







Behavior

- You must fix any safety violation IMMEDIATELY.
- NO HORSEPLAY
- Any extremely careless behavior that endangers the safety of others will result in you immediately losing lab privileges for the semester
- Safety quiz by next week!
 - All information in lab procedures