Fall 2016 Materials Lab Schedule

Week	Lab	Output	Due
Rotation I - Introduction			
1	Introduction, Safety, Group assignments		
	Introductory Lab	Report	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	Identifying 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) (See note below)	Results	
8	Jominy Test for Comparing Heat Treatability of Steels (3,4,1,2)	Memo	
9	Phase Diagrams (4,1,2,3)	Memo	
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)		
Rotation V - Final Project			
12	Material Testing Assignment		
13	Material Testing Assignment		
14	Final Project Presentations	Report, Slides	12/2

Note: Creep Testing of Polymers (Output: Graphs) can be replaced with
Cure Optimization of Thermosetting Adhesives (Output: Memo)