



Activity 6.5 - Material Testing Requirements

Page	Must Include	Grading
Title	"Material Testing Unit" "Principles of Engineering" Your name The date	10 points
SPC Tape	The SPC tape, scotch-taped to the paper	15 points
Labeled Graph	Force vs. Elongation Graph with the following points clearly identified and labeled: Proportional Limit, Ultimate Point, Breaking/Rupture Point, Points used to find Young's Modulus	15 points
Stress at the Proportional Limit	At top-center of page: "Stress at the Proportional Limit" Under title: state the definition All work for problem solving method to find stress at the proportional limit	20 points (1 for title; 4 for definition; 15 for problem solving)
Ultimate Stress	At top-center of page: "Ultimate Stress" Under title: state the definition All work for problem solving method to find ultimate stress	20 points (1 for title; 4 for definition; 15 for problem solving)
Breaking/Rupture Stress	At top-center of page: "Breaking Stress" Under title: state the definition All work for problem solving method to find breaking stress	20 points (1 for title; 4 for definition; 15 for problem solving)
Total Strain	At top-center of page: "Total Deformation/Strain" Under title: state the definition All work for problem solving method to find total strain	20 points (1 for title; 4 for definition; 15 for problem solving)
% Elongation	(Can be shown at bottom of Total Strain page) Center of page: "% elongation" Under title: state the definition All work for problem solving method to find % elongation	20 points (1 for title; 4 for definition; 15 for problem solving)
% Reduction	At top-center of page: "% Reduction" Under title: state the definition All work for problem solving method to find % reduction	20 points (1 for title; 4 for definition; 15 for problem solving)

Modulus of Elasticity	At top-center of page: "Modulus of Elasticity" Under title: state the definition of the modulus of elasticity All work for problem solving method to find modulus of elasticity	20 points (1 for title; 4 for definition; 15 for problem solving)
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Requirements & Grading for Material Testing Packet (continued)

Modulus of Toughness	<ul style="list-style-type: none"> ➤ At top-center of page: "Modulus of Toughness" ➤ Under title: state the definition ➤ All work for problem solving method to find modulus of toughness 	➤ BONUS (up to 10 points)
Modulus of Resilience	<ul style="list-style-type: none"> ➤ At top-center of page: "Modulus of Resilience" ➤ Under title: state the definition ➤ All work for problem solving method to find modulus of resilience 	➤ BONUS (up to 10 points)
Design Problem	<ul style="list-style-type: none"> ➤ Use Design Problem Page handed out in class ➤ Show all work required to provide an answer (all mathematical work in the form of the problem solving method) ➤ Make sure to answer questions 	➤ 20 points (15 for problem solving work; 5 for written responses)
Total:		➤ 200 points