



**JORDAN UNIVERSITY OF SCIENCE AND
TECHNOLOGY
INDUSTRIAL ENGINEERING DEPARTMENT**



Course Number and Name	IE 331 Engineering Measurement
Course Description	Measurement and errors in measurements, using different methods in linear, angular and surface measurements, checking linear dimensions and angles, studying methods of measuring and checking different components in the construction of machines
Credits and contact hours	2 Credit hours; 2 hours of lectures
Pre- or Co-requisites	
Required/ Elective	Required

Text Book(s)	J. Galyer & C. Shotbolt " <i>Metrology for Engineers</i> ", 5th. Ed., ELBS.
Software tools	
References	<ol style="list-style-type: none"> 1. The Metrology Handbook, ASQ, Jay L. Bucher, Editor 2. Internet Links: http://www.asme.org 3. http://www.ansi.org

Course Objectives	<ul style="list-style-type: none"> • Know the meaning of Metrology, its relation with quality control and its importance in industry • Learn the different systems of fits and their importance in design and process of parts assembly. • Understand the different types of linear, angular measurement instruments and their usage. • Know the different types of fixed and deviation gauges. • Select and use the proper instruments for surface measurements.
Measured Outcomes	3i

Evaluation		
Assessment Tool	Expected Due Date	Weight
First Exam		25 %
Second Exam		25 %
Quizzes		10 %
Final Exam	According to the University final examination schedule	40%

Topics Covered		
Week	Topics	Chapters in Text
1	Introduction	Chapter 1
2	Linear measurements	Chapter 2
3	Fixed and deviation type gauges	Chapter 3
4	Gauging and inspection of screw thread	Chapter 4
5	Optical measurements	Chapter 5
6	Angular measurements	Chapter 6
7	Surface measurements	Chapter 7