

ME472 – ENGINEERING METROLOGY & QUALITY CONTROL

COURSE INFORMATION & OUTLINE

Lecturer

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Course Outline

Chapter 1: Introduction to Measurement & Units

Definitions, History & Units of Measurement, National Metrology Institutes

Chapter 2: Linear & Angular Measurements

Methods and Instrumentation in Direct Measurements

Chapter 3: Advanced Measurement Methods

Methods and Instrumentation in Indirect Measurements

Chapter 4: Measurement of Geometric Tolerances

Rotational & Rectilinear Measurements of Geometric Tolerances

Chapter 5: Measurement of Surface Texture

Measurement of Form, Waviness and Roughness of Surfaces

Chapter 6: Design of Limit Gauges

Basic Concepts of Limits & Tolerances, Design of Limit Gauges

Chapter 7: Measurement of Screw Threads

Methods and Instrumentation for Measurements of Screw Threads

Chapter 8: Measurement of Gears

Methods and Instrumentation for Measurements of Gears

Lecture Notes & Announcements

Lecture Notes, Announcements & Other Info at GAUN Academic Web Page:

akbis.gantep.edu.tr/detay/?A_ID=148576

Reference Books

- **Metrology & Instrumentation** (S. Mekid, 2021)
- **Engineering Metrology & Measurements** (N. V. Raghavendra, 2013)
- **The Metrology Handbook** (J. L. Bucher, 2012)

Grading

Two Midterm Exams [30% each] + Final Exam [40%]