

Date:	Examination No.:	Version:2023/2024	Start: 4/9/2023 -7/12/2023
Module Name - Code	Measurements and Instrumentation		
Module Language:	English		
Responsible:	Dr. Salar Saber Kartas Sherwani		
Lecture (s):			
College:	College of Engineering – Salahaddin University		
Duration:	15 week – 1 semester		
Course outcomes:	At the end of the semester, students would be able to understand Measurements and Instrumentation in aerospace engineering and its impact on the airplane guides and problem-solving principles. The student will get familiar to partition problems into sub-problems then solve sub problems. They will get to know the starting point of Measurements and Instrumentation in aerospace at the end of the semester. Students will learn about how the expansion of Measurements and Instrumentation in manufacturing is affecting the aerospace industry. And also they will receive handouts on theory and practice in laboratory work.		
Course Content:	Content Measurements and Instrumentation 1. Introduction. 2. Temperature Measurements. 3. Pressure Measurements. 4. Flow Measurements. 5. Level Measurements.		
Literature:	Any book having Measurements and Instrumentation and its impact on the Aviation Engineering References 1. Alan S. Morris. 2001. Measurement and Instrumentation Principles, Butterworth-Heinemann Linacre House, Jordan Hill, Oxford OX2 8DP 225 Wildwood Avenue, Woburn, MA 01801-2041 A division of Reed Educational and Professional Publishing Ltd, third edition. 491 pp. 2. Gnanavadivel, “Measurements and Instrumentation”, Anuradha Publication, Second Revised Edition 2011. 3. Jain R.K., “Mechanical and Industrial Measurements”, Khanna Publishers, 11th edition, Reprint 2005. 4. Mohanned Al-khafaji. 2014. Measurement and instrumentation. University Technology Dept. of production Eng. and metallurgy. 61pp.		
Type of Teaching:	2 hrs in lectures 2 hrs laboratory working.		
Pre-requisites:			
Frequency:	Yearly in the fall semester		
Requirements for credit points:	For the award of credit points, it is necessary to pass the module exam. The module exam (practical and theoretical) contains: [Written 120 min for theoretical] [Written 45 min for practical] Students' attendance is required in all classes.		
Credit point:	4		
Grade Distribution:	The Grade is generated from the examination result(s) with the following 10% Quizzes 10% student's activities 10% practical 20% mid-term exam 10% final practical exam 40% final theoretical Exam		
Work load:	The workload is 150h. It is the result of 60h attendance and 90h self-studies.		