



Jordan University of Science and Technology
Faculty of Engineering
Aeronautical Engineering Department

Course name and number:

AE370 Instrumentation

Credit, contact hours and categorization:

Credit and contact hours	Contact hours	Categorization
3 Credit Hours	Sunday-Tuesday-Thursday 1-hour lecture Or Monday-Wednesday 1.5-hours lecture	Engineering Topic

Instructor's or course coordinator's name:

Name	Dr. Yazan Taamneh
Office location	N1-L2
Email address	ymtaamneh@just.edu.jo

Textbook and other supplemental materials:

Textbook			
Title	Instrumentation for Engineering Measurements		
Author(s)	James W. Dally		
Edition	2 nd Edition		
Other Information	John Wiley & Sons		
References			
Book Name	Author(s)	Edition	Other Information
Experimental Methods for Engineers	J. P. Holman	8th Edition	McGraw Hill

Course information:

Course Catalogue		
Analysis of experimental data. Statistics; mean and variance, Basic electronic measurement and sensing devices, Displacement, area, force , torque , pressure, strain, fluid flow, temperature, and thermal and transport properties measurements.		
Course type : This course is Required to fulfill the program.		
Prerequisites or co-requisites		
Line Number	Course Name	Prerequisite Type
243032	EE303 Principles Of Electrical Engineering (Non Ee-Students)	Prerequisite / Study
713410	AE341 Fluid Mechanics	Prerequisite / Study



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Specific goals of the course :

Specific outcomes of instruction and the student outcomes (SO) mapping		
Outcomes	SO Mapping	Course Outcome Weight (Out of 100%)
Analyze experimental data.	30SO 6	30%
Evaluate different instrumentation components and systems .	30SO1	30%
Investigate different modern measurements systems .	40SO 2	40%

Brief list of topics to be covered:

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Applications of electronic instrumentation systems	Textbook
Weeks 2, 3, 4	Statistical methods	Textbook
Week 5	Analysis of circuits, Analog Recording instruments	Textbook
Week 6	Sensors for transducers	Textbook
Weeks 7, 8, 9	Signal Conditioning circuits	Textbook
Weeks 10, 11	Resistance-Type strain gages	Textbook
Week 12	Force, torque and pressure measurements	Textbook
Week 13	Displacement, Velocity, and acceleration measurements	Textbook
Week 14	Temperature measurements	Textbook
Weeks 15, 16	Fluid flow measurements	Textbook