

Class schedule - ME 310

Period	Date	Topic	Reading	Problems
1	Th Aug 26	Course introduction/Basic concepts/Generalized Measurement System	Ch. 1	
2	Th Aug 26	Dynamic measurement basics	Ch. 2	
3	Tu Aug 31	Uncertainty Analysis	Ch. 3	
4	Tu Aug 31	Probability Distributions and Confidence Intervals	Ch. 3	
5	Th Sep 02	Curve Fitting and Correlation	Ch. 3	
6	Tu Sep 02	Sample Statistics	Ch. 3	
7	Tu Sep 07	Lab 1: Uncertainty		
8	Th Sep 09	TEST ONE: Basic Concepts and Analysis of Experimental Data		
9	Tu Sep 14	Basic circuits	Ch. 4	
10	Tu Sep 14	Amplifiers & Signal Conditioning	Ch. 4	
11	Th Sep 16	Lab 2: Signal conditioning lab		
12	Tu Sep 21	Signal Conditioning and electrical instruments	Ch.4	
13	Tu Sep 21	Transducers	Ch. 4	
14	Th Sep 23	Lab 3: Frequency response and digital data acquisition		
15	Tu Sep 28	Filters	Ch. 4	
16	Tu Sep 28	Op amp circuits	Ch. 14	
17	Th Sep 30	Logic circuits; A/D and D/A conversion	Ch. 14	
18	Tu Oct 05	TEST TWO: Electrical Measurements and Signal Conditioning		
19	Tu Oct 05			
20	Th Oct 07	Test two review, electrical transducers		
21	Tu Oct 12	Lab 4: Displacement and area transducers		
22	Tu Oct 12	Stress and Strain	Ch. 10	
23	Th Oct 14	Load and Torque	Ch. 10	
24	Tu Oct 19	Lab 5: Stress and strain and the bridge circuit		
25	Tu Oct 19	Lab 5: Stress and strain and the bridge circuit, cont.		
26	Th Oct 21	Lab 5: Stress and strain and the bridge circuit, cont.		
27	Tu Oct 26	Measurement of Moderate Pressures and Dynamic Pressure Measurement	Ch. 6	
28	Tu Oct 26	Low Pressure Measurement	Ch. 6	
29	Th Oct 28	TEST THREE: Mechanical Measurements		
30	Tu Nov 02	Positive Displacement, Obstruction, and Pressure Probe Flow Meters	Ch. 7	
31	Tu Nov 02	Drag Effect, Thermal and Magnetic Flow Meters; Flow visualization	Ch. 7	
32	Th Nov 04	Lab 6: Flow measurements		
33	Tu Nov 09	Mechanical and Electrical Temperature Measurement	Ch.8	
34	Tu Nov 09	Heat Transfer Effects and Transient Response	Ch. 8	
35	Th Nov 11	Lab 7: Temperature measurements		
36	Tu Nov 16	Conductivity, Calorimetry, Convection, Heat Flux	Ch. 9	
37	Tu Nov 16	Viscosity, Diffusion, Humidity, pH	Ch. 9	
38	Th Nov 18	TEST FOUR: Thermo-Fluid Measurements		
39	Tu Nov 23	Test four review		
40	Tu Nov 23	Spectroscopy		
	Th Nov 25	HAPPY THANKSGIVING!		
41	Tu Nov 30	Vibration and Seismic Measurements	Ch. 11	
42	Tu Nov 30	Acoustic Measurements	Ch. 11	
43	Th Dec 02	Lab 8: Vibrations and acoustics		
44	Tu Dec 07	Air pollution standards and sampling techniques	Ch. 13	
45	Tu Dec 07	Particulates, Opacity, and Odors; Optical Measurements	Ch. 13	
46	Th Dec 09	Review Day	Review	
47	Tu Dec 14	FINAL EXAM: Comprehensive		