

LECTURE ENG 214

Week	Date	Tuesday Lecture topic		Reading from Text	Theme	
1	1/12/2012	Class starts Thursday in Lab	ALL	Ch 1, Videomaterials	Introduction	17th MLK
2	1/17/2012	Temperature	JB	pp 341-347	Basic Electronic Laboratory	
3	1/24/2012	Dataaquisition w LabVIEW (in ECE 307)	DH	LabView Powerpoint file	Instrumentation Software	SPIE 21th - 26th
4	1/31/2012	Basic Op Amp Circuits/ECG intro	JB	pp 27-68, 261-273	Electronic Measurement System: Amplifications	
5	2/7/2012	Safety & Regulations; Electrical S, Isolator	JB		Safety and Regulations	
6	2/14/2012	Noise / Sampling theory	JB	pp 77-79	Frequency Analysis	
7	2/21/2012	Digital filters (1D, 2D)	UU	pp 77-79	Noise Reduction	
8	2/28/2012	Experimental design	JB		Experimental design	
9	3/6/2012	Spectrophotometer: Pulse Oximeter	UU	pp 90-94, 24hr midterm week	Spectrometry	
10	3/13/2012	SPRING BREAK	-	-	Stay Clean	10th -18th Spring Break
11	3/20/2012	Detection	UU		Photonic Sensing	
12	3/27/2012	Respiratory/Blood flow	JB	pp 303-311, 275-279, 287-291	Flow	
13	4/3/2012	Blood Pressure/HemoDialysis/Bypass	JB	pp 273-275, 293-296	Pressure, Systemdesigns	
14	4/10/2012	Electrodes/EEG/Pacemaker	JB	pp 228-235	Biopotentials	
15	4/17/2012	Utrasound*	JB	pp 279-285 291-293	Sound	
16	4/24/2012	Design and Constr. of Scientific Aparatus	JK		Systemdesign	
17	5/1/2012	Oral Laboratory Reports	ALL		Wrap Up	
	5/10/2012	FINAL EXAM (8:00 am - 10:00 am)	ALL	UU: Urs Utzinger JB: Jennifer Barton	DH: Darren Haskett JK: Joseph Keyes	

LABORATORY ECE 337

Week	Date	Thursday Laboratory		Due, on Thursday	Pre-Lab	
1	1/12/2011	Introduction to course and lab				
2	1/19/2011	Working with the laboratory equipment				
3	1/26/2011	Sensor Calibration: Thermistor		Results Lab Equipment (not	Thermistor	
4	2/2/2011	ECG: Instrumentation amplifier		Therm Notebook	Inst. Amp, Datasheets	
5	2/9/2011	ECG: HP, LP, filters			Filters	
6	2/16/2011	Sampling theory lab			Fourier	
7	2/23/2011	ECG: digital filter		Sampling Report	60Hz Calculations	
8	3/2/2011	ECG: demo				
9	3/9/2011	Pulse Oximeter		ECG Notebook (no report)	Hemoglobin, Photodiode/emitter	
10	3/16/2011	-	-	-	-	10th -18th Spring Break
11	3/23/2011	Pulse Oximeter				
12	3/30/2011	Project Lab		Pulseoxi Notebook		
13	4/6/2011	Project Lab				
14	4/13/2011	Project Lab				
15	4/20/2011	Project Lab				
16	4/27/2011	Project Lab				
17	5/4/2011			Proj. Report & Notebook	(Due Wednesday by 5:00 pm)	
		TA: Darren Haskett				