

ECE 440L

Fall 2013

Last updated: 09/12/13

## Lab 3 rubric

### Overview

- 100 points possible
- Grade basis: Completeness, clarity, and correctness
- Assign partial credit when appropriate.

Problem	Item
1	DC offset and amplitude correctly give mod. index = 0.5
	Time and frequency plots are given
2	Calculations are shown for each of three methods
	- Max and min observed on oscilloscope
	- Trapezoid pattern in XY-mode
	- Spectrum analyzer
3 (a)	RC chosen correctly
	Oscilloscope plot of properly working envelope detector shown
	Oscilloscope plot of failure-to-follow distortion shown
	Maximum mod. index correct
(b)	Clear, correct answer given about maximum index
4 (a)	Students demonstrate (in-lab):
	- Tuning in to different carrier frequencies
	- Adjusting frequency and shape of message
	Students demonstrate (in-lab):
	- CD player modulation and demodulation
	Typical CD-modulated scope display given with mod. index
	Is radio playable with mod. index = 0.1?
(b)	Each of three messages is correctly identified in reports