

TLEN 5830-AWL HW-03 – DUE 07-Feb-2017

This Homework and associated lab exercise focuses on signal impairments. This Homework is weighted relatively more compared to the previous homework exercises - be sure and spend the appropriate time on this assignment.

1. Eye Diagram transmission signal reception diagnostics summary (cheat-sheet)

This week's SDR-based lab assignment focuses on utilizing the Eye Diagram to assess digital receive signal transmissions. In association with the Eye Diagram you are to compose an *Eye Diagram "Cheat-sheet"* that summarizes the diagnostic assessments that can be made with the Eye Diagram. Think of this as a cheat-sheet you will keep and evolve; thus the expectation is to do a very good job. Include all diagnostic assessments that can be made, specify what to look for, and include relevant theory (equations where applicable) in a nicely formatted table.

2. Signal Impairments summary

There are many different signal impairments that wireless engineers must deal with - in fact it is the one focus area that differentiates wireless communications from other forms of data communications. Be comprehensive. Generate a table with the signal impairment term and a concise definition of the impairment term. Organize/categorize as applicable. Generate a *professionally useful* table.