EE4382/EE5306 ANTENNA ENGINEERING/ANTENNA THEORY
SYLLABUS

Classroom  PSYCH 307
Tuesdays and Thursdays 10:30 – 11:50 AM

Instructor  Dr. Benjamin C. Flores
Professor of Electrical Engineering

Office  Engineering A336
Office Hours  MW 3:00 to 4:00 or by appointment (request by e-mail at least a day in advance)

Available as an e-book.

Other  Scientific/Graphics calculator, laptop, access to MATLAB

LEARNING OUTCOMES. By the end of the semester, the student will be able to:

1) Design a parabolic dish antenna to meet gain and half-power beam width requirements.
2) Apply the Friis equation for a satellite communication link.
3) Derive, compute and analyze array factors for one-dimensional and two-dimensional arrays.
4) Derive, compute and analyze radiation patterns of wire dipoles and corresponding arrays.

REQUIREMENTS

• Academic integrity standards will be observed and maintained at all times. Cases of alleged academic dishonesty will be reported to the Dean of Students (OSCCR).
• Class attendance is mandatory. Four unexcused absences will result in a faculty-initiated withdrawal. Each tardy appearance may count as a half absent.
• Participation in classroom teamwork activities is required. Unwillingness to collaborate may result in a letter grade reduction.
• Reports must be turned in at the beginning of the class period on the due date. Late assignments will be penalized with a 10-point deduction per day.
• Students with special accommodations needs must register with CASS at the beginning of the semester. No exceptions.

FINAL GRADE will be based on four MATLAB project and one project dedicated to the construction and testing of a helical antenna. All projects will include additional tasks for graduate students. The final grade will be determined as follows:

Final Grade = 0.8 (MATLAB project report average) + 0.2 (helical antenna design report).

Extra credit may be awarded for submitting an end-of-course binder and demonstrating IEEE or SWE membership.