

## **EL 330 - High Frequency Communication Circuits with Lab**

4 Credit Hours

This course contains designing bias circuits, H-parameter modeling, and filters. There will be a brief introduction to electric and magnetic fields and their interactions with conductors and dielectric media, and Maxwell's equations. This course offers a deep dive into types of antennas, antenna parameters, and radiation mechanisms/efficiency. This introduction includes a theoretical understanding of maximum directivity, maximum effective area, the Friis transmission equation, free space, radio waves, and line-of-sight propagations. Data for physical systems will be sampled using computer-aided design tools.

### **Prerequisites**

[EL 250](#) [EL 310](#)