

# ECE 8720: 5G Wireless Networks

This course covers several topics on fifth generation (5G) of wireless systems with a specific focus on the physical layer and air interface technologies. 5G systems are being developed by industry for deployment starting in 2020. In comparison to 4G systems, 5G systems are to support for 10 times higher the peak data rate, 10 times lower latency, and 10 times higher number of connected devices. We then look at the opportunities and challenges introduced by using mmWave frequency bands, massive MIMO, cloud-RAN, and full-duplex communications. Pre-requisites: Undergrad Signal Processing and Communication.

**Credits:** 3.0

**Prerequisites:**

ECE 3225 and ECE 3770