

# CERTIFICATE IN WIRELESS COMMUNICATIONS ENGINEERING

For communications engineers who want a focused program providing state-of-the-art instruction in the growing field of wireless communications, this program offers fundamental coursework in traditional telecommunications system design as well as computer communication networks.

## Curriculum

Code	Title	Credit Hours
<b>Required Courses</b>		<b>(6)</b>
Select a minimum of 2 courses from the following:		6
ECE 406 or ECE 504	Wireless Communications Systems Wireless Communication System Design	3
ECE 503	5G Wireless Network: Architecture, New Radio, and Security	3
ECE 510	Internet of Things and Cyber Physical Systems	3
<b>Elective Courses</b>		<b>(6-7)</b>
Select a minimum of two courses from the following:		6-7
ECE 403 or ECE 405	Digital and Data Communication Systems Digital and Data Communication Systems with Laboratory	3-4
ECE 406 or ECE 504	Wireless Communications Systems Wireless Communication System Design	3
ECE 408	Introduction to Computer Networks	3
ECE 501	Artificial Intelligence and Edge Computing	3
ECE 503	5G Wireless Network: Architecture, New Radio, and Security	3
ECE 510	Internet of Things and Cyber Physical Systems	3
ECE 511	Analysis of Random Signals	3
ECE 513	Communication Engineering Fundamentals	3
ECE 514	Digital Communication Principles	3
ECE 515	Modern Digital Communications	3
ECE 516	Coding for Distributed Storage Systems	3
ECE 517	Modern Wireless Network Protocols and Standards	3
ECE 519	Coding for Reliable Communications	3
ECE 520	Information Theory and Applications	3
ECE 530	High Performance VLSI IC Systems	3
ECE 543	Computer Network Security	3
ECE 544	Wireless and Mobile Networks	3
ECE 545	Modern Internet Technologies	3
ECE 546	Wireless Network Security	3
ECE 547		3
ECE 576	Antenna Theory	3
<b>Total Credit Hours</b>		<b>12-13</b>