OU-Tulsa Electrical and Computer Engineering
SPRING 2023 COURSES

ECE 5123 Sec 980 CRN 44418 Mon/Wed 11:00-12:15PM Dr. H. Refai (918-660-3243) Room 3106
Wireless Communication. Course focuses on wireless communications principles, multiple access techniques, wireless networking, plus systems and standards.

ECE 5973 Sec 980 CRN 42874 Tue/Thur 1:30-2:45PM Dr. S. Cheng SYNC
Computer Vision. Familiarity with linear algebra and Matlab is expected. Course covers topics including filtering techniques, feature detection, tracking techniques, camera models, and multiscale pyramids.

ECE 5973 Sec 981 CRN 43047 Tue/Thur 5:00-6:15PM Dr. S. Cheng SYNC
Artificial Neural Networks. Familiarity with high-level programming languages such at Python is expected. Course covers topics including autoencoders, backpropagation algorithm, convolutional neural networks, and recurrent neural networks. Applications on computer vision and natural language processing will be explored.

ECE 5973-985 CRN 44417 ONLINE Dr. Walid Balid ONLINE
PCB Design Principles and Practices. This comprehensive class teaches variety of essential topics and will expand on in-depth topics to advance the attendees knowledge of using Altium Designer Schematic Capture and PCB Layout tools. The class will also dive into more challenging topics including mixed-signal high-speed PCB design considerations and techniques, differential pair routing, length matching, signal integrity aspects, circuit replication with multi-channel design, and design for manufacturing (DFM) techniques.

CS 5173-001 CRN: 42027 Mon/Wed 1:30-2:45pm Dr. Shangqing Zhao Zoom for Tulsa Students
Computer Security. This course provides an overall view and essential knowledge of computer security, and it is not heavily theory-oriented, but application-oriented with appropriate mathematical content. It is self-contained and covers basic elements in communication, network and data security, including information-theoretic security, cryptographic primitives, secret sharing, basic security attacks and countermeasures.

(All courses listed above are 3 hours of credit unless noted.)

The courses listed below are offered every semester. They are not held in a classroom and are 1-on-1 with a professor. These courses are variable hour credit courses. Please refer to the ECE Course Catalog for limitations.

ECE 5880 Professional Internship	ECE 6950 Research in ECE	ECE 6990 Independent Study
ECE 5980 Res MS Thesis	ECE 6960 Directed Readings	
ECE 5990 Special Studies	ECE 6980 Res. Drs. Dissertation	

For general questions contact Denise Davis at 918-660-3235 or dldavis@ou.edu

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