

# CET: COMPUTER ENGINEERING TECH

Courses	Credit(s)	Contact	Lab
CET 1610C. CISCO ROUTER TECHNOLOGY.	3	2	2
CET 2114C. DIGITAL SYSTEMS.	3	2	2
CET 2118C. FPGA DESIGN USING VHDL. FPGA DESIGN USING VHDL Prerequisite: CET 2114C or CET 2113C	3	2	2
Introduction to the theory of FPGA (Field Programmable Gate Array) logic design with the implementation of VHDL (Very High Speed Integrated Circuit Hardware Description Language). Topics will include: combinational logic circuit design, graphical method for designing logic circuits, flip-flop designs, memory devices design, frequency division, encoders/decoders design, and counter design. (Special Fee: \$98.00).			
CET 2123C. FUNDAMENTALS OF MICROPROCESSORS.	3	2	2
CET 2178C. COMPUTER HARDWARE. COMPUTER HARDWARE The computer hardware course is a hands-on laboratory-oriented course designed to introduce the student to the operation, support, and troubleshooting of PCs, peripherals, and network connectivity issues. Major terms covered in this course are hardware concepts, troubleshooting, repair, maintenance and support. (Special Fee: \$67.00).	3	3	1
CET 2486C. LOCAL AREA NETWORKS. LOCAL AREA NETWORKS This course introduces the architectures, models, protocols, and networking elements that connect users, devices, applications and data through the internet and across modern computer networks - including IP addressing and Ethernet fundamentals. By the end of the course, students can build simple local area networks (LANs) that integrate IP addressing schemes, foundational network security, and perform basic configurations for routers and switches. This is the first of a three-part series designed to prepare students for the Cisco Certified Networking Associate exam. (Special Fee: \$67.00).	3	3	1
CET 2544C. COMPUTER VIRTUALIZATION TECHNOLOGY.	3	2	2
CET 2615C. ROUTING & SWITCHING IN THE ENTERPRISE.	3	2	2
CET 2620C. NETWORK FIREWALLS.	3	2	2
CET 2660C. LINUX NETWORKING AND SECURITY. LINUX NETWORKING AND SECURITY Prerequisite: CET 2486C and CNT 2417C This course provides an essential foundation for students requiring the Linux operating system to perform cyber security related operations. The course engages the student with numerous network security and digital forensics-related labs designed to introduce concepts and develop techniques essential for success in cyber security field. Students will engage in numerous interactive activities and hands-on exercises. Emphasis is made in the use of both open-source software and security-related utilities. (Special Fee: \$53.00) 202110.	3	2	2
CET 2792C. INSTALLING AND CONFIGURING WINDOWS SERVER.	3	2	2
CET 2793C. ADMINISTERING WINDOWS SERVER.	3	2	2
CET 2830C. INFORMATION SECURITY.	3	2	2
CET 2880C. DIGITAL FORENSICS I. DIGITAL FORENSICS I Prerequisites: CET 2660C, CET 2792C, and CNT 2414C This course offers a solid foundation to computer forensics investigations: preparing students to acquire and analyze digital evidence. The course covers tools and techniques and explains topics such as file structure, data recovery, e-mail and network investigations, and expert witness testimony. In addition, the student will gain practical knowledge in conducting digital investigations and preserving digital evidence that maybe used in court or corporate inquiries. (Special Fee: \$50.00).	3	2	2
CET 2881C. DIGITAL FORENSICS II. DIGITAL FORENSICS II Pre-requisite: CET 2880C Digital Forensics II builds upon the foundational knowledge learned in Digital Forensics I. Students will utilize industry standard tools to conduct examinations of various digital media and document their findings. Devices to be studied include computers (server, desktop, laptop), mobile devices (tablets, cellphones, smartphones, MP3 players, GPS), and devices such as DVRs and routers. Emphasis will be placed upon real-world digital forensics scenarios and the investigative thought process. At the conclusion of the class, students will be prepared to take the AccessData Certified Examiner (ACE) examination. (Special Fee \$132.00).	3	2	2
CET 2890C. ADVANCED CYBERSECURITY OPERATIONS.	3	2	2
CET 2892C. ETHICAL HACKING. ETHICAL HACKING Prerequisites: CET 2830C The overarching objective of this course is to arm the student with the practical knowledge necessary to integrate the defense-in-depth strategy, as detailed by the National Security Agency (NSA), in deploying, hardening, monitoring, and defending critical information infrastructure. The National Security Agency (NSA) and the Committee on National Security Systems (CNSS) has recognized this course for meeting the CNSS 4013 training standard. (Special Fee: \$53.00).	3	2	2
CET 2894C. PROJECTS IN CYBER SECURITY: CAPSTONE COURSE.	3	2	2
CET 2942. INTERNSHIP IN NETWORKING. INTERNSHIP IN NETWORKING Prerequisites: CET 2830C and CET 1610C This course is a planned work-based experience that provides students with an opportunity to fine-tune skill sets learned in coursework and enhance workplace skills through supervised practical experience related to their career objectives. Each earned credit of Internship require a minimum of 80 clock hours of work. Multiple credit course. May be repeated for credit, but grade forgiveness cannot be applied. (Internship fee: \$10.00).	1-4	variable	
CET 3136C. LOGIC DEVICES PROGRAMMING. LOGIC DEVICES PROGRAMMING Prerequisite: CET 2113C or CET 2114C and Minimum grade of C in CET 3464C An in-depth study of hardware and software architecture of programmable logic devices. Topics include PLDs architecture and design of Altera hardware and software description language, HDL format and syntax, and representation of data in VHDL logic circuits. Minimum grade of C required if used to satisfy Electrical and Computer Engineering Technology, B.S. Degree requirement. (Special Fee: \$64.00).	3	2	2
CET 3464C. SOFTWARE APPLICATIONS IN ENGINEERING TECHNOLOGY.	3	2	1

CET 4126C. MICROPROCESSOR PROGRAMMING.	3	2	2
MICROPROCESSOR PROGRAMMING Prerequisite: CET 2113C and CET 2123C and minimum grade of C in COP 3275 This course is designed to introduce the student to the hardware architecture and Software architecture programming of the microprocessors. Main topics include Microcomputer Assembly Programming, operating system environment, and the hardware characteristics of the microprocessor. A minimum grade of C is required if used to satisfy Electrical and Computer Engineering Technology, B.S. Degree requirement. (Special Fee: \$92.00).			
CET 4190C. DIGITAL SIGNAL PROCESSING.	3	3	1
CET 4367C. MICROCONTROLLER DEVICES.	4	2	2
CET 4370C. ADVANCED PROGRAMMING APPLICATIONS.	3	2	1
CET 4382. DATA COMMUNICATION AND NETWORKING.	3	3	0
DATA COMMUNICATION AND NETWORKING Prerequisite: Minimum grade of C in EGN 3046 or MAP 2302 and EET 2325C An in-depth study of different layers in a computer network and processes related to each one of them. Topics include Physical, Data link, Network, Transport and Application Layers and their roles in communication of data in networking. Design and performance of a network will be analyzed through mathematical techniques. Minimum grade of C required if used to satisfy Electrical and Computer Engineering Technology, B.S. Degree requirement.			
CET 4542. COMPUTER ARCHITECTURE AND DATA COMMUNICATION.	3	3	0
COMPUTER ARCHITECTURE AND DATA COMMUNICATION Prerequisites: CET 2113C or CET 2114C, and a minimum grade of C in EGN 3046 or a minimum grade of C in EGN 3428, and CET 2123C A study of computer organization and architecture, architectural performance issues, different layers in a computer network, and processes related to each one of them. Design and performance of computer architectures and networks will be analyzed through mathematical techniques.			
CET 4663. COMPUTER AND NETWORK SECURITY.	3	3	0
COMPUTER AND NETWORK SECURITY Prerequisite: Minimum grade of C in EGN 3046 or minimum grade of C in EGN 3428, and CET 2123C This course introduces fundamental concepts and techniques of computer security. Topics include secure communications, secure operating systems, and network protection technologies such as firewall, intrusion detection systems, and access control policies. Minimum grade of C required if used to satisfy Electrical and Computer Engineering Technology, B.S. Degree requirement.			