Course Descriptions for all COMPUTER NETWORKING courses
(in order by semester)

CISC 100 Computer Technology I (Cr4) (4:0)
Introductory course for Computer Information Technology majors with the goal of establishing entry-level skills for three CIT options: Software, Networking, and Web. HTML, programming logic and design, and basic networking concepts will be covered as well as the exploration of CIT careers, and Excel and Word core level skills.

CISC 231 Data Communications and LANs (CCENT 1) (Cr4) (4:0)
This course provides the foundation for work in data communications and local area networks. It introduces the architecture, structure, functions, components, and models (OSI, TCP/IP) of the internet and computer networks. The principles of IP addressing, Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. By the end of the course, students will be able to build simple LANs, perform basic configurations for major networking devices, and implement IP addressing schemes. This is the first semester of the Cisco Networking Academy Program. [CCENT1 Cisco Certified Entry Networking Technician I]. Offered fall semester only.

ELEC 130 PC Support and Troubleshooting (Cr4) (3:2)
Students will gain a complete, step-by-step approach for learning the fundamentals of supporting and troubleshooting desktop hardware and software. This course maps fully to CompTIA’s latest A+ Exam objectives.

ELEC 131 Introduction to Networking Hardware (Cr2) (2:1)
Companion course to ELEC 130 to give a jump-start to students who already grasp the general concepts of PC repair and troubleshooting, but would like to focus attention in starting toward NET+ certification studies and an introduction to networking hardware components and the OSI model; networking equipment includes NICs, hubs, switches, routers and cabling, along with network topologies and the OSI model. Pre- or coreq- ELEC 130.

ENGL 101 English I (Cr3) (3:0)
A writing-intensive course giving close attention to the process of writing through networked workshops and conferences involved in preparation and revision of drafts. The course develops skills in logical and focused writing, through development of a main point by means of supporting ideas and evidence. In addition, students learn to integrate information from secondary sources through the use of summary, paraphrase, and direct quotation in various forms of thesis-based writing. Prereq. - Competence in reading and writing as determined by English Department through testing and/or course work. Approved for the Honors Program.

CISC 105 Desktop Operating Systems (Cr4)(4:0)
This course will introduce Desktop Operating System functions and utilities using operating systems such as Windows, Mac, Linux/Unix. Students will compare how the different operating systems handle user interface, file management, memory management, processor management, and network management.

CISC 267 Routing and Switching Essentials (CCENT2) (Cr4) (3:2)
This is an advanced course intended for networking professionals and students who already grasp the
general concepts of data communications and networking, but would like a more detailed understanding of networking switching and routing. This course describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPv2, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. [CCENT2 CISCO Certified Entry

CMTH 102 Speech Communication (Cr3) (3:0)
Basic principles of communication theory and practice, including speech preparation and delivery, and the effective use of critical thinking and listening in relation to intrapersonal, interpersonnal, intercultural, and group communication. Networking Technician 2] Prereq. - CISC 231. Offered spring semester only.

ENGL 151 English II (Cr3) (3:0)
Students continue to develop the academic writing and critical reading skills begun in English I. Students may elect to work on introduction to literature (L), report writing (R), or technical writing (T). Prereq.- ENGL 101. ENGL 151L (literature option) is approved for the Honors Program and has a designated as a Diversity (D) core course.

ELEC 254 Server I (Cr3) (2:2)
This course is designed to introduce students to installing and configuring server operating systems. This is an intensive hands-on course where students will learn the skills and knowledge necessary to implement a core Windows Server Infrastructure into an existing enterprise environment. Prereq. - ELEC 130.

BUSA 221G Business Communications (Cr3) (3:0)
Comprehensive overview of the communications processes with special emphasis on practical workplace applications; students assess and develop their listening, speaking, writing, and research skills as they prepare business letters, memos, reports, presentations, proposals, and employment packages; students plan and conduct business meetings and practice effective group problem-solving skills. Only one of BUSA 221 or OFAD 221 may be applied to a degree. Prereq. - ENGL 151 and CMTH 102.

CISC 265 Networking Architectures, Processes and Protocols (Cr4) (3:2)
Detailed understanding of the processes and protocols used in today's networks; network architectures from an OSI model perspective of the networking protocol stack; detailed analysis of the protocol using traces taken with protocol analyzers. Pre- or coreq.- CISC 231 or ELEC 251. Offered fall semester only.

CISC 271 Intermediate Routing & Switching, Interconnectivity and Troubleshooting (CNNA R&S) (Cr4) (3:2)
This is an advanced course intended for networking professionals and students who already grasp the general concepts of data communications and networking. This course describes the architecture, components, and operations of routers, and switches in a larger and more complex network. Students learn how to configure routers and switches for advanced functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, STP, and VP in both IPv4 and IPv6 networks. Students will develop the knowledge and skills needed to implement DHCP and DNS operations as well WAN technologies. IPSec and virtual private network (VPN) operations in a complex network. There is a strong emphasis on network design,
configuration and troubleshooting. [CCNA R&S CISCO Certified Network Associate Routing & Switching] Prereq.- CISC 267. Offered fall semester only.

CISC 272 Building Scalable Internetworks (CCNP-Route) (Cr3) (2:2)
This course introduces students to scaling IP addresses using VLSM, NAT and PAT. It focuses on advanced concepts and implementation if RIPv2, ISIS, multi-area OSPF, SLA management, IPV6 and BGP. Additional topics include router filtering, path control, Policy Based Routing (PBR) and route distribution. [CCNP-Route Cisco Certified Network Professional-Route] Prereq.- CISC 271. Offered spring semester only.