

CNST AAS DEGREE TRACKING WORKSHEET

NAME _____ STUDENT ID _____

Computer Networking and Security Technology

Computer Network Specialist
Associate of Applied Science Degree
Tech Prep - 2008 Catalog Year

Texas State Technical College – Harlingen’s Computer Networking and Security Technology department is a Tech Prep program participant. High School students may receive college credit for approved courses taken during high school.

Course #	Course Title	Sem Credit Hrs.	Sem Taken	Grade	College (If not TSTC)
	Take each of these core technical courses:				
CPMT 1303	Introduction to Computer Technology†	3			
ITNW 1325	Fundamentals of Networking Technologies†+	3			
ITSC 1309	Integrated Software Applications I†	3			
CPMT 1304	Microcomputer System Software†	3			
ITSE 1331	Intro to Visual Basic	3			
	Take each of these CNST courses:				
ITNW 1354	Implementing & Supporting Servers+	3			
ITNW 2309	Network Administration for Intranet+	3			
ITNW 2321	Networking with TCP/IP+	3			
ITNW 2354	Internet/Intranet Server+	3			
ITSY 1342	Information Technology Security+	3			
ITNW 2313	Network Hardware+	3			
ITNW 2359	Web Server Support and Maintenance+	3			
ITSY 2330	Intrusion Detection+	3			
ITNW 1380	COOP (or Approved Technical Elective)	3			
ITSY 2301	¹ Firewalls & Network Security+	3			
ITNW 1392	Special Topics in Computer Networking – Emerging Technologies				
ITNW 2350	Enterprise Network#‡+	3			
ITSY 2359	Security Assessment & Auditing+	3			
	Take each of these academic courses:				
PSYT 1313	Frameworks for Learning: Psychology of Personal Adjustment+	3			
ENGL 1301	English Composition I+	3			
MATH 1314	College Algebra+	3			
	Humanities/Fine Arts Elective ²	3			
	Social and Behavioral Science Elective ²	3			
SPCH 1318	Interpersonal Communications	3			

¹ Select from the following: ITNW 1380, ITNW 1680, or non-program course selected in accordance with career objectives and subject to department approval.

² Select from the appropriate section of the General Education Course List.

† High school articulated course

Capstone course

‡ Course with external learning experience

+ Prerequisites: See Course Descriptions.

Final approval of degree plan for graduation is provided by the Admissions Office. Application for graduation must be on file in the Admissions Office before the published deadline of the student’s final semester. The TSTC Catalog contains important information about graduation.

CNST COURSE DESCRIPTIONS

ITNW 1325 FUNDAMENTALS OF NETWORKING TECHNOLOGY (2-4-3). Instruction in networking technologies and their implementation. Topics include the OSI reference model, network protocols, transmission media, and networking hardware and software. Prerequisite: None

ITNW 1354 IMPLEMENTING & SUPPORTING SERVERS (2-4-3). A course in the development of skills necessary to implement, administer, and troubleshoot information systems that incorporate Windows Based Servers in a networked computing environment. Prerequisite: None

CPMT 1303 INTRODUCTION TO COMPUTER TECHNOLOGY (2-4-3). A fundamental computer course that provides in-depth explanation of the procedures to utilize hardware and software. Emphasis on terminology, acronyms, and hands-on activities.
Prerequisite: None

ITNW 2309 NETWORK ADMINISTRATION/ INTRANET (2-4-3). Perform the role of network administrator or system manager in an Intranet network. Prerequisite: ITNW 1325

ITSC 1309 INTEGRATED SOFTWARE APPLICATIONS (2-2-3). Integration of applications from popular business productivity software suites. Instruction in embedding data, linking and combining documents using word processing, spreadsheets, databases, and/or presentation media software. Prerequisite: Keyboarding proficiency

CPMT 1304 MICROCOMPUTER SYSTEM SOFTWARE (2-4-3). Skill development in the installation, configuration, maintenance and troubleshooting of system software in microcomputers. Topics may include operating systems, utility software and other software affecting the basic operation of a microcomputer system. Prerequisite: None

ITSE 1331 VISUAL BASIC (2-4-3). Introduction to computer programming using Visual BASIC. Emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files. Prerequisite: None

ITNW 2321 NETWORKING WITH TCP/IP (2-4-3). Preparation to set up, configure, use, and support Transmission Control Protocol/Internet Protocol (TCP/IP) on networking operating systems. Prerequisite: Co-requisite: ITNW 1325

ITSY 1342 INFORMATION TECHNOLOGY SECURITY (2-4-3). Instruction in security for network hardware, software, and data including physical security, backup procedures, firewalls, encryption, and protection from viruses. Prerequisite: ITNW 2321

ITNW 2354 INTERNET/INTRANET SERVER (2-4-3). Installing, configuring, maintaining, and managing an Internet server. Prerequisite: ITNW 1325

ITNW 2313 NETWORKING HARDWARE (2-4-3). Maintain network hardware devices. Topics include network cables, servers, and workstations; network connectivity devices such as routers, hubs, bridges, gateways, repeaters, and uninterruptible power supplies; and other networking hardware devices. Prerequisite: ITNW 2321

ITNW 2359 WEB SERVER SUPPORT AND MAINTENANCE (2-4-3). Instruction in the installation, configuration, and implementation of web servers. Prerequisite: None

ITSY 2330 INTRUSION DETECTION (2-4-3). Computer information systems security monitoring, intrusion detection, and crisis management. Includes alarm management, signature configuration, sensor configuration, and troubleshooting components. Emphasizes identifying, resolving, and documenting network crises and activating the response team. Prerequisite: ITNW 2321

ITNW-1380 CO-OP: BUSINESS SYSTEMS NETWORKING & TELECOMMUNICATIONS (1-19-3). An intermediate or advanced course with lecture and work-based instruction that helps students gain practical experience in the discipline, enhance skills, and integrate knowledge. Indirect supervision is provided by the work supervisor while the lecture is provided by the college faculty or by other individuals under the supervision of the educational institution. Cooperative education may be a paid or unpaid learning experience. Prerequisite: 4th Semester Standing.

ITSY 2301 FIREWALLS AND NETWORK SECURITY (2-4-3). Identify elements of firewall design, types of security and responses to security attacks. Use best practices to design, implement, and monitor a network security plan. Examine security incident postmortem reporting and ongoing network security activities. Prerequisite: ITNW 2313

ITNW 1392 SPECIAL TOPICS (2-4-3). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Graduate standing.

ITNW 2350 ENTERPRISE NETWORK (2-4-3). Capstone experience for the curriculum. A case study in Convergence Technologies requiring a network engineer to study a problem and design a network solution for an enterprise network. Prerequisite: Graduate standing.

ITSY 2359 SECURITY ASSESSMENT AND AUDITING (2-4-3). Synthesizes technical material covered in prior courses to monitor, audit, analyze, and revise computer and network security systems to ensure appropriate levels of protection are in place. Prerequisite: ITSY 2301

PSYT 1313 FRAMEWORKS FOR LEARNING: PSYCHOLOGY OF PERSONAL ADJUSTMENT (2-2-3). Development of personal, social, and work adjustment skills. Prerequisite: None.

ENGL 1301 ENGLISH COMPOSITION I (3-0-3). Principles and techniques of written composition, textual analysis, and critical thinking. Prerequisites: READ 0200 & WRIT 0200 or equivalent as determined by English Placement Test.

MATH 1314 (3-0-3). The study of complex numbers, exponential and logarithmic functions, inequalities, determinants and matrices, and sequences and series. The course includes non-linear systems of equations and higher-degree equations. Prerequisites: DMTH 0200 or equivalent as determined by MATH Placement Test.

SOCIAL/BEHAVIORAL SCIENCE (3-0-3). Elective. Select from the appropriate section of the General Education Course List. Prerequisite: READ 0200 or equivalent as determined by English Placement Test.

HUMANITIES/FINE ARTS (3-0-3). Elective. Select from the appropriate section of the General Education Course List. Prerequisite: None

SPEECH 1318 (3-0-3). Theories and exercises in verbal and nonverbal communication with focus on interpersonal relationships. Prerequisite: None

Last Updated: 6/24/2008