

IT Clinical Internship

Primary Career Cluster:	Information Technology
Course Contact:	CTE.Standards@tn.gov
Course Code(s):	C10H12
Prerequisite(s):	Two credits in the <i>Networking Systems</i> program of study
Credit:	1
Grade Level:	11-12
Focus Elective Graduation Requirements:	This course satisfies one of three credits required for an elective focus when taken in conjunction with other <i>Information Technology</i> courses.
Program of Study (POS) Concentrator:	This course satisfies one out of two required courses that meet the Perkins V concentrator definition, when taken in sequence in the approved program of study.
Programs of Study and Sequence:	This is the final course in the <i>Networking Systems</i> program of study.
Aligned Student Organization(s):	SkillsUSA: http://www.tnskillsusa.com Technology Student Association (TSA): http://www.tntsa.org
Promoted Student Industry Credentials:	Credentials are aligned with post-secondary and employment opportunities and with the competencies and skills that students acquire through their selected program of study. For a listing of promoted student industry credentials, visit https://www.tn.gov/education/career-and-technical-education/student-industry-certification.html
Required Teacher Certifications/Training:	Individuals teaching this course will require either the NOCTI test code 5910: Computer Networking Fundamentals Certification, or A+, NetPlus, CIW, or CISCO Industry Certifications. If students are assigned in work-based learning settings, teachers must attend WBL training and earn the WBL Certificate provided by the Tennessee Department of Education
Teacher Endorsement(s):	153, 311, 435, 436, 470, 474, 475, 476, 477, 582, 595, 740, 953
Teacher Resources:	https://www.tn.gov/education/career-and-technical-education/career-clusters/cte-cluster-information-technology.html Best for All Central: https://bestforall.tnedu.gov/

Course-At-A-Glance

CTE courses provide students with an opportunity to develop specific academic, technical, and 21st century skills necessary to be successful in career and in life. In pursuit of ensuring every student in Tennessee achieves this level of success, we begin with rigorous course standards which feed into intentionally designed programs of study.

Students engage in industry relevant content through general education integration and experiences such as career & technical student organizations (CTSO) and work-based learning (WBL). Through these experiences, students are immersed with industry standard content and technology, solve industry-based problems, meaningfully interact with industry professionals, and use/produce industry specific, informational texts.

Using a Career and Technical Student Organization (CTSO) in Your Classroom

CTSOs are a great resource to put classroom learning into real-life experiences for your students through classroom, regional, state, and national competitions, and leadership opportunities. Below are CTSO connections for this course, note this is not an exhaustive list.

- Participate in CTSO Fall Leadership Conference to engage with peers by demonstrating logical thought processes and developing industry specific skills that involve teamwork and project management
- Participate in contests that highlight job skill demonstration; interviewing skills; community service activities, extemporaneous speaking, and job interview
- Participate in leadership activities such as Student2Student Mentoring, National Week of Service, Officer Training, and Community Action Project

For more ideas and information, visit Tennessee SkillsUSA at <http://www.tnskillsusa.com>.

Using Work-based Learning in Your Classroom

Sustained and coordinated activities that relate to the course content are the key to successful work-based learning. Possible activities for this course include the following. This is not an exhaustive list.

- **Standards 1-18** | Internship with a local business or school.

For more ideas and information, visit <https://www.tn.gov/education/career-and-technical-education/work-based-learning.html>.

Course Description

IT Clinical Internship is a capstone course and work-based learning experience designed to provide students with real-world application of skills and knowledge obtained in previous *Networking Systems* courses. Students are eligible to take the *IT Clinical Internship* if they have successfully completed all the prerequisites in the *Networking Systems* program of study. Prospective students must apply for admission to the class (acceptance at the discretion of the instructor). The internships are designed to be completed in an IT Support environment, such as the student's school, a community-based shop that provides IT Support, or the IT Support department of a local business. This course puts to practical use all of the skills attained in previous courses, and provides the student with valuable hands-on experience. It meets the recommended 500 hours' work experience to prepare each student to sit for the CompTIA A+ exams, which certifies industry-recognized IT Support technicians. Upon completion of this course, proficient students will be prepared to pursue further training at a Tennessee College of Applied Technology (TCAT) or other postsecondary institution.

Work-Based Learning Framework

Clinical experiences must comply with the Work-Based Learning Framework guidelines established in SBE High School Policy 2.103. The TDOE provides a *Personalized Learning Plan* template to ensure compliance with the Work-Based Learning Framework, state and federal Child Labor Law, and Tennessee Department of Education policies, which must be used for students participating in WBL opportunities. Additionally, this course must be taught by a teacher with an active WBL Certificate issued by the Tennessee Department of Education and follow policies outlined in the Work-Based Learning Policy Guide available online at <https://www.tn.gov/education/career-and-technical-education/work-based-learning.html>.

Program of Study Application

This is the capstone course in the *Networking Systems* program of study. For more information on the benefits and requirements of implementing this program in full, please visit the Information Technology website at <https://www.tn.gov/education/career-and-technical-education/career-clusters/cte-cluster-information-technology.html>.

Course Requirements

This capstone course aligns with the requirements of the Work-Based Learning Framework (established in Tennessee State Board High School Policy), with the Tennessee Department of Education's Work-Based Learning Policy Guide, and with state and federal Child Labor Law. As such, the following components are course requirements:

Course Standards

- 1) A student will have a Personalized Learning Plan that identifies their long-term goals, demonstrates how the Work-Based Learning (WBL) experience aligns with their elective focus and/or high school plan of study, addresses how the student plans to meet and demonstrate the course standards, and addresses employability skill attainment in the following areas:

- a. Application of academic and technical knowledge and skills (embedded in course standards)
 - b. Career knowledge and navigation skills
 - c. 21st Century learning and innovation skills
 - d. Personal and social skills
- 2) Accurately read, interpret and demonstrate adherence to safety guidelines appropriate for the roles and responsibilities of an employee in an IT setting. Listen to safety instructions and be able to explain why certain rules apply. Demonstrate safety techniques and follow all applicable guidelines related to the clinical placement. Based on placement, document completion of training topics on the appropriate work-based learning (WBL) and work site forms.
- 3) Develop a personalized student-learning plan, in accordance with approved policies, to address the methods for practicing and demonstrating each of the skills identified in the pre-requisite IT course standards. Relate how each skill applies to a placement in an IT setting, and document day-to-day applications. Participate in ongoing review and communications around progress of plan with WBL Coordinator.
- 4) Observe and analyze organizational culture and practices, e.g., how to interact with supervisors, clients, and co-workers, and how to recognize and address health, safety, and sustainability issues. Seek information from supervisors and other employees about appropriate methods of pursuing employment in the industry, and determine what knowledge, skills, and educational credentials are required.
- 5) Apply learning experiences from internship placement to review and update an education and career pathways plan based on the knowledge and feedback acquired. Proactively identify areas of strength and opportunities for professional growth, encourage and act on feedback from peers, supervisors, and customers, and seek and use resources and support to improve skills.
- 6) Identify and ask significant questions to solve problems in the workplace. Use inductive and deductive reasoning methods to recognize faulty reasoning, and to understand problems and alternative solutions.
- 7) Analyze quality assurance methods used by IT professionals in a variety of industries. Solve problems using systems thinking, e.g., by understanding problems in terms of complex processes and environments. Identify key components and relationships that enable, influence, and produce outcomes.
- 8) Demonstrate integrity and ethical behavior when engaging in all worksite activities, including the secure use of client data, responsible Internet use, use of tools and materials, documentation of services provided, sharing of information, client relations, and completion of all personnel-related forms.
- 9) Articulate ideas effectively in written personal communications with supervisors, coworkers, and customers using appropriate IT terminology, reviewing and revising as needed and

developing claims with appropriate evidence and reasoning. Verbally articulate ideas effectively in interpersonal communications with supervisors, coworkers, and customers. Develop and deliver messages effectively in oral presentations. Demonstrate effective listening skills, attending to the meaning and intention of communication, and accurately paraphrasing what has been heard. Communicate effectively with individuals of diverse backgrounds who may also speak languages other than English, using foreign language skills as appropriate.

- 10) Work effectively as a member of a team and address conflict with sensitivity and respect for diverse points of view. Demonstrate understanding of one's own impact and build on different perspectives to strengthen joint efforts. Demonstrate leadership where appropriate to collaborate on workplace tasks. Effectively employ meeting management strategies, such as agenda setting, time keeping, and meeting facilitation strategies, and list action items to identify and schedule next steps.
- 11) Access information efficiently, using sources appropriate to task, purpose, and audience. Distinguish between credible and non-credible sources, including the difference between advertising and legitimate research. Evaluate information for usefulness, bias, and accuracy, and question information that may not originate from credible sources. Demonstrate the ability to organize and manage information effectively and efficiently. Demonstrate ethical and legal use of information, including adherence to all rules and regulations related to sharing of protected information. For example, when a user reports a network system problem, investigate and verify that the problem exists, determine how many users are affected, and diagnose the problem using the information at hand.
- 12) Use appropriate technology for information search and retrieval, synchronous and asynchronous communications, multimedia presentations, document production, quantitative and qualitative analysis, and information management. Use social networking and online collaboration tools such as shared documents and web conferencing to create, integrate, and manage information in group projects.
- 13) Access and manage online communication and information, such as a customer relationship management system, using multiple digital devices. Demonstrate adherence to all rules and regulations related to the use of electronic tools and the Internet, including appropriate protection of passcodes and adherence to all security protocols.
- 14) Complete tasks as directed without direct supervision, knowing when questions or guidance should be requested. Exhibit resourcefulness and initiative in taking on new tasks and solving problems on one's own as appropriate to the workplace setting. Demonstrate how to learn and exhibit personal agency in identifying and achieving instrumental and ultimate learning objectives. Demonstrate curiosity to learn more about the tasks, workplace, and/or industry. Explore deeper content on one's own and request opportunities for professional development. Demonstrate self-efficacy and confidence in one's ability to succeed in specific situations.
- 15) Present oneself professionally and respectfully when interacting with coworkers, supervisors, and customers. Demonstrate reliability and responsibility in attendance and in

following through on agreed upon tasks, and communicate with supervisor when circumstances change. Understand and adhere to appropriate workplace non-discrimination standards on the basis of sex, race, color, age, national origin, religion, disability, marital status, sexual orientation, gender identity, pregnancy, veteran status, or any characteristic of a person or group unrelated to the workplace. Respect cultural differences and work effectively with people from diverse social and cultural backgrounds.

- 16) Exhibit flexibility by adapting to varied roles, jobs responsibilities, schedules and contexts; working effectively in a climate of ambiguity and changing priorities; and dealing positively with praise, setbacks, and constructive criticism.
- 17) Manage time and projects effectively by setting goals; developing and using a system for prioritizing, planning and managing daily work; persisting in the face of challenges; and seeking assistance and adjusting plans to adapt to changing circumstances. Demonstrate attention to detail and accuracy appropriate to the task. Demonstrate accountability to supervisors, coworkers, and customers by delivering work to agreed-upon standards; accepting constructive criticism; completing agreed-upon projects on time; and exhibiting pride in workmanship.
- 18) Create a portfolio, or similar collection of work, that illustrates mastery of skills and knowledge outlined in the previous Networking Systems courses and applied in the internship experience. The portfolio should reflect thoughtful assessment and evaluation of the progression of work involving the application of steps of the troubleshooting process, as outlined by the instructor. The following documents will reside in the career portfolio:
 - a. Career and professional development plan
 - b. Resume
 - c. Documentation of work hours at each site
 - d. List of responsibilities undertaken throughout the placement
 - e. Examples of materials developed and used throughout the placement
 - f. Periodic journal entries reflecting on tasks and activities
 - g. Supervisor evaluations and observations
 - h. Approved WBL forms
 - i. WBL coordinator evaluations and observations

Standards Alignment Notes

*References to other standards include:

- P21: Partnership for 21st Century Skills [Framework for 21st Century Learning](#)
 - Note: While not all standards are specifically aligned, teachers will find the framework helpful for setting expectations for student behavior in their classroom and practicing specific career readiness skills.