PEIMS Code: N1302815
Abbreviation: ITTROUB
Grade Level(s): 10-12
Award of Credit: 1.0

- Districts must have local board approval to implement innovative courses.

- In accordance with Texas Administrative Code (TAC) §74.27, school districts must provide instruction in all essential knowledge and skills identified in this innovative course.

- Innovative courses may only satisfy elective credit toward graduation requirements.

- Please refer to TAC

components to identify and resolve problems. The course focuses on developing a methodic in IT troubleshooting and leveraging those skills in a workplace environment. In this course, st learn and use proven troubleshooting methods and apply those in a collaborative workplace s Students will develop personal success skills, including time management and personal accour measures, strategies for collaboration and teamwork, and effective written and verbal commu skills. The knowledge and skills acquired in the course will allow students to use IT resources, information, and data safely, ethically, and following legal guidelines. Students will work withi level model that helps them to interpret, clarify, and diagnose issues with hardware, software networking.

(a) General Requirements. This course is recommended for students in *grades 10-12.* Recommended
.

duction.

Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.

The Information Technology (IT) Career Cluster focuses on building linkages in IT occupations for entry-

(3) The *IT Troubleshooting* course is about applying logic over technical components to identify and resolve problems. The course focuses on developing a methodical approach in IT troubleshooting and leveraging those skills in a workplace environment. In this course, students will learn and use proven troubleshooting methods and apply those in a

  (D) identify habits and situations to avoid when interacting with a client;

  (E) explain the importance of keeping clients informed of status changes and list the steps for putting a client on hold or transferring a call;

  (F) identify techniques and strategies for diffusing difficult calls and customers; and

  (G) document all communications and process outcomes clearly and appropriately.

 (3) The student applies procedures for various support interaction types. The student is expected to:

  (A) describe the primary responsibilities and top skills of an IT Support Specialist and identify how a professional can deliver consistent, quality service;

  (B) explain and demonstrate safety procedures for unpacking, handling, and repacking replacement parts;

  (C) demonstrate fluency with methods and technologies such as in-person, email, phone, web, or remote access used for delivering support and describe which support delivery methods for different types of support;

  (D) demonstrate the use of remote access technologies to troubleshoot an issue; and

  (E) describe the purpose and value of the security management process and the IT Support Specialist's role in that process.

 (4) The student implements proven troubleshooting methods and strategies within the context of a service level model. The student is expected to:

  (A) apply a troubleshooting process for diagnosing issues with hardware, software, and the network;

  (B) explain the importance of clearly documenting progress through the troubleshooting process;

  (C) describe activities common to a Help Desk Service Level Model (Incident Management process (Incident Management)

   (B) describe best practices for creating passwords such as increasing password length, password complexity, password blacklists, password resets, limiting attempts, or multi-factor authentication;

   (C) examine and adhere to guidelines for using media, information, and applications protected by copyright;

   (D) compare copyright, Fair Use, Public Domain, and Creative Commons licensing;

   (E) apply and enforce licensing guidelines for software, media, and other resources;

   (F) explain the importance and uses of encryption;

   (G) describe and follow principles for handling confidential information;

   (H) analyze cyber threats and social engineering vulnerabilities and ways to prevent them;

   (I) describe various types of security policies and summarize the importance of physical security measures and logical security concepts;

   (J) explain the importance of reporting security compromises such as addressing prohibited content and activity; and

   (K) determine and implement appropriate data destruction and disposal methods relevant to a given scenario.

 (6) The student applies foundational knowledge and skills for the installation, configuration, operation, and maintenance of desktops and workstations. The student is expected to:

   (A) explain the procedure used to install and configure motherboards, central processing units (CPUs), and add-on cards relevant to a given scenario, such as a custom PC configuration to meet customer specifications;

   (B) describe how to implement security best practices to secure a workstation, including software-based computer protection tools such as software firewalls, antivirus software, and anti-spyware;

   (C) demonstrate how to identify symptoms or error codes, including no power, no POST, no BOOT, and no video that indicate device issues and explain how to troubleshoot them;

   (D) describe the process used to install, troubleshoot, or replace RAM types and data storage;

   (E)

(7)

(10) The student troubleshoots issues with wired and wireless networks and cloud computing resources. The student is expected to:

(A) explain and demonstrate how to install, configure, and secure a wired network;

(B) explain and demonstrate how to install, configure, and secure a basic wired network;

(C) compare and describe wireless security protocols and authentication methods;

(D) analyze and describe troubleshoot wired and wireless network problems;

(E) demonstrate the use of appropriate networking tools safely; and

-