

D. A. DORSEY TECHNICAL COLLEGE

STUDY A CAREER FOR REAL SUCCESS



Computer Systems & Information Technology

Work-Base Activity

Instructional Plan

2024-2025

Mission

Our mission is to positively impact the residents of this community through educational and economic empowerment by providing sound academic programs spanning literacy through vocational certification.

Vision

The vision for D. A. Dorsey Technical College is to be the cornerstone of the Liberty City community and surrounding areas of Miami-Dade County while connecting students to their maximum earning potential. All D. A. Dorsey Technical College graduates will be highly trained and ready for the workforce.

Core Values

Excellence: We pursue the highest standards in academic achievement and organizational performance.

Integrity: We build positive relationships through honesty, respect, and compassion, which enhance the self-esteem, safety, and well-being of our students, families, and staff.

Equity: We foster an environment that serves all students and aspires to eliminate the achievement gap.

Citizenship: We honor the diversity of our community by working as a team to ensure the educational success of all our students and recognize that our obligations go beyond our professional responsibilities to promote democratic principles.

Hours of Operation

The campus has classes in session Monday through Friday between 8:00 a.m. and 1:45 p.m. Evening classes are offered Monday through Thursday between 3:55 p.m. and 8:00 p.m. to serve the needs of post-secondary and adult general education students.

Work-Based Activity Instructional Plan

Professional Staff/Roles and Responsibilities

The work-based activity is coordinated by the Computer Systems Information Technology instructor. The instructor is the liaison between the school and the employment agency. The instructor is responsible for the initial contact with the employer/agency to coordinate the work experiences and communicate the expected objectives, experiences, competencies, and evaluations that are required.

The instructor will also accompany the student to the work experience site and introduce the student to the on-site employer representative responsible for guiding and overseeing the students' learning experiences and participate in the students' written evaluations.

Scope of the Work-Based Plan

This work-based experience is a supervised, unpaid experience of contact hours in the information technology industry. Students ready for the work-base experience have completed all other program requirements and are eligible for this final phase in the program.

The program should ensure that the experience and instruction of students are meaningful and parallel in content and concept with the material presented in lecture and laboratory sessions. Sites should be selected so that each student is afforded a variety of experiences, while at the same time all students are provided consistent learning opportunities.

The student's work-based experience should be performed in a professional environment under conditions of strict supervision and guidance of a Computer Systems Technician. An individual knows the profession must provide on-site supervision of the student.

The actual hands-on experiences will tie-in all the educational components based on theory and competency-based instruction that the student learned in the laboratory and classroom setting.

The work-based Experience will include the following components:

- Objectives, experiences, competencies, and evaluations

- On-site employer representative responsible for guiding and overseeing the students' learning experiences
- On-site employer representative responsible for participating in the students' rated evaluation

Current and Relevant Standards and Outcomes:

- 01.0 Demonstrate proficiency with personal computer hardware.
- 02.0 Apply troubleshooting, repairing and maintenance techniques.
- 03.0 Understand operating systems and software.
- 04.0 Identify and construct a basic network.
- 05.0 Analyze and react to various security threats and vulnerabilities.
- 06.0 Explain the basic physical security elements of a network.
- 07.0 Demonstrate proficiency with operational procedure.
- 08.0 Demonstrate language arts knowledge and skills.
- 09.0 Demonstrate mathematics knowledge and skills.
- 10.0 Demonstrate proficiency with installing, configuring, and troubleshooting personal computer hardware.
- 11.0 Apply techniques to various operating systems.
- 12.0 Build, secure and troubleshoot medium to large.
- 13.0 Use oral and written communication skills in creating, expressing and interpreting information and ideas.
- 14.0 Solve problems using critical thinking skills, creating and innovation.
- 15.0 Use information technology tools.
- 16.0 Describe the roles within teams, work units, departments, organizations, interorganizational systems, and the larger environment.
- 17.0 Describe the importance of professional ethics and legal responsibilities.
- 18.0 Describe the operation of data networks.
- 19.0 Verify connectivity between two end devices.
- 20.0 Configure a Layer 3 switch.
- 21.0 Program a router with basic configurations
- 22.0 Explain how IPv6 address assignments are implemented in a business network.
- 23.0 Explain how data is moved across the network, from opening an application, to receiving data.
- 24.0 Demonstrate the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance.

- 25.0 Demonstrate leadership and teamwork skills needed to accomplish team goals and objectives.
- 26.0 Explain the importance of employability skill and entrepreneurship skills.
- 27.0 Describe a switched network a small-to-medium-sized business.
- 28.0 Describe a routing environment.
- 29.0 Explore the concept of switches and security.
- 30.0 Configure and troubleshoot a Layer 3 environment.
- 31.0 Configure, troubleshoot and implement ACLs.
- 32.0 Demonstrate knowledge of how network services and protocols interact to provide network communication in order to securely implement and use common protocols.
- 33.0 Demonstrate an understanding of cybersecurity concepts and research.
- 34.0 Recognize attacks and apply appropriate solutions.
- 35.0 Recognize and be able to differentiate and explain the following access control models.
- 36.0 Comprehend and develop an understanding of protocol security and associated risks.
- 37.0 Recognize and understand remote access technologies.
- 38.0 Identify and administer security fixes as defined by the appropriate OSI layers.
- 39.0 Recognize and understand the administration of the following directory security concepts.
- 40.0 Identify wireless technologies, concepts and vulnerabilities.
- 41.0 Apply advanced principles of security techniques.
- 42.0 Define concepts of Key Management and Certificate Lifecycles.
- 43.0 Understand the application of the following concepts of physical security.
- 44.0 Understand security concerns for types of network topologies and media.
- 45.0 Implement the process of network system hardening within a computer network.
- 46.0 Describe the security implications of the following topics of disaster recovery options.
- 47.0 Demonstrate proficiency in applying the concepts and uses of the following types of policies and procedures.
- 48.0 Understand different types of privilege management.
- 49.0 Understand the concepts of cybersecurity guidelines.
- 50.0 Understand training of end users, executives and human resources in security vulnerabilities.

Evaluation During the Work Experience:

The designated on-site employer representative is responsible for guiding and overseeing the students' learning experiences will participate in the students' written evaluation by documenting the student's attendance and rate the student performance as it relates to a demonstration of the current and relevant standards and outcomes.