

Lake Technical College

# 2017 - 2018 Master Plan of Instruction

**Enterprise Desktop & Mobile Support Technology** 

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The mission of Lake Technical College is to be an integral component of the economic growth and development in our community by offering a variety of high quality career-training opportunities.

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# LAKE TECHNICAL COLLEGE Enterprise Desktop and Mobile Support Technology

#### INTRODUCTION

The tremendous growth and advancement of the computer industry during recent years have made it essential that prospective technicians receive basic training that will be applicable in many related fields.

This program focuses on operation, configuration, and troubleshooting of current operating systems, mobile devices, and a variety of enterprise PC hardware. Students will develop skills in installing, configuring, and troubleshooting business applications. The program also covers fundamental network concepts, printers, cabling, PC hardware, software, iOS, Android and more. Students will hone attitudes and relationship skills required in a customer service industry with a focus on technical skill sets. The structure of the program is intended to prepare students to complete the CompTIA A+, Network+, and Security+ industry certifications.

The program is designed as an open-entry/open-exit, competency-based, individualized program of study in which students may gain the minimum job entry-level skills in the computer systems industry. The Enterprise Desktop and Mobile Support Technology Program offers 4 courses of study totaling 1050 hours.

### **PROGRAM MISSION**

The mission of this program is to provide training within the Enterprise Desktop and Mobile Support Technology field and assist the student in the development of his/her ability to get along with others, to show integrity, to develop safe professional skills both on and off the job, to evidence personal and job cleanliness and to demonstrate the ability to become a better adjusted, more productive citizen.

## **TEST OF ADULT BASIC EDUCATION (TABE)**

All applicants for Career and Technical Education (CTE) programs 450 hours or more, with the exception of Florida Law Enforcement Academy applicants, take a state mandated TABE prior to enrollment. TABE scores are good for two years and must be valid at the time of enrollment.

Several exemptions to TABE are accepted. In order to be exempt, a student must submit official documentation to a career advisor for verification of an exemption:

- 1. Applicants who have earned a standard State of Florida high school diploma, 2007 or later, or possess a documented degree (AA, AS, AAS, BA or BS) may be exempt from TABE testing. (s.1004.91).
- 2. Applicants who have earned a State of Florida High School diploma via the GED® test no more than two years prior to the start of class.
- 3. Students taking any accepted standardized tests such as PERT or ACT may be exempt from the TABE provided the scores are at satisfactory levels and the test was taken within two years of enrollment in a Career and Technical Education program (6A-10315, 6A-10.040).
- 4. A student who has completed or who is exempt from the college-level communication and computation skills (CLAST) examination pursuant to s.1008.29 is also exempt from the TABE. Per s. 1008.29.
- 5. Documented successful completion of college-level remedial coursework may be used to meet TABE requirement.
- 6. Documented passing scores on state-designated industry certification tests may be used.
- 7. Mandated TABE exit scores may be waived for documented special needs students as per Florida guidelines. The student must enroll in AAAE and begin remediation in order to meet the exit requirements of the CTE program in which the student is enrolled. A student, with a documented disability, who is approaching completion (mastered 90% of the competencies) of the CTE program and has not met TABE scores, may be considered for a TABE exemption based on the following. It is determined through a SIT meeting that the student has successfully mastered the competencies of the CTE program in which she/he is enrolled and has been participating as expected in AAAE. The members of the SIT meeting may agree to waive TABE requirements.

According to Florida Department of Education rules, students who fail all or parts of the TABE may only retest using a different TABE version after 60 documented hours of remediation in the Applied Academics for Adult Education (AAAE) lab or three months if not attending AAAE. Students may not retake the same test version for six months. We, therefore, strongly recommend that students test early, especially for licensure programs, in order to allow time for remediation and retesting should the need arise.

Students who do not meet the minimum TABE scores set by the Florida Department of Education for their program must begin attending remediation classes in the AAAE lab prior to or at the time of enrollment in a Career and Technical Education program for at least one block a day and make acceptable progress as determined by the AAAE faculty. Students should meet state mandated TABE requirements by the time they have completed 50% of their program. Students who do not meet state mandated TABE scores may not receive a certificate of completion as per Florida Department of Education rules.

Applicants transferring appropriately leveled TABE, PERT or other accepted standardized test scores from other testing centers must do so by having an official score report sent directly to the Admissions Office prior to enrollment in the program. Scores brought by hand will be accepted only if document provided by the outside testing center is in a sealed envelope. Standardized tests scores are valid for two years.

TABE scores are good for two years and must be valid at the time of enrollment. TABE scores that expire during continuous enrollment remain valid until the end of such enrollment. Under continuous enrollment, students must be enrolled at least 50% of one semester per school year and may miss no more than one consecutive semester. Continuous enrollment applies to attendance in a single program.

The TABE exit scores for this program are: Reading 9; Math 10; and Language 9.

#### **ADMISSIONS REQUIREMENTS**

Applicants must be at least 16 years of age and should be academically, physically, and emotionally capable of meeting the demands of the chosen program. Applicants make initial application through the Admissions Office. A minimum skills evaluation is part of the admission process.

The Enterprise Desktop and Mobile Support Technology program has the following minimum admissions requirements:

- 1. Complete an LTC online application.
- 2. Take the TABE.
- Meet with a career advisor.

A high school diploma or GED is not required to enroll. However, it is **recommended that all students complete** either a high school diploma or a GED prior to program completion.

Students who enroll with prior computer skills and/or training may be able to complete program requirements in less time than students who enter without this background.

#### **ESSENTIAL TASKS**

# **Physical Requirements**

- 1. Ability to reach above shoulder level
- 2. High degree of manual dexterity
- 3. Ability to stoop, crouch and/or bend
- 4. High degree of finger dexterity

## **Mental and Emotional Requirements**

- 1. Ability to plan and organize daily activities
- Ability to apply common sense understanding to carry out instructions furnished in both written and oral form
- 3. Ability to work on multiple tasks and priorities
- 4. Ability to cope with moderate to high levels of stress
- 5. Ability to cope with frustration
- 6. Ability to assist with problem resolution
- 7. Ability to perform repetitive tasks
- 8. Ability to perform and complete tasks of relative complexity
- 9. Ability to make decisions
- 10. Ability to cope with anger/hostility of others in a calm manner

- 5. Ability to see, especially colors, (near acuity)
- 6. Ability to lift at least 40 pounds
- 7. Ability to communicate clear, concise information in layman's terms
- 11. Ability to demonstrate a high degree of patience
- 12. Ability to read and understand computer and related equipment and software manuals
- 13. Ability to perform basic mathematical operations
- 14. Ability to tolerate moderate noise level
- 15. Ability to work without close, direct supervision
- 16. Ability to work with others
- 17. Ability to measure accurately

#### **ACCOMMODATIONS**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's IEP or 504 plan or postsecondary student's accommodations plan to meet individual needs to ensure equal access. Postsecondary students with disabilities must self-identify, present documentation, request accommodations if needed, and develop a plan with their postsecondary provider.

Students desiring accommodations or updates to their accommodations are encouraged to self-identify as early in the program as possible. In order to receive disability accommodations, students must self-disclose the disability to the Students with Disabilities Coordinator and provide documentation that clearly shows evidence of a disability and applicable accommodations. The Students with Disabilities Coordinator will schedule a meeting with the student and faculty to discuss the documented disability and applicable accommodations.

Accommodations received in postsecondary education may differ from those received in secondary education. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments, assessments, time demands, schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodation requested and provided is maintained in a confidential file.

## **TUITION**

Tuition is charged for adult students at a rate established by the State legislature. Current fee information is available in the Admissions Office. Tuition is waived for eligible high school dual-enrolled students. <u>Tuition is due prior to the first day of each semester based on the Lake Technical College payment calendar. Failure to pay all fees due at the time class begins will result in not being able to attend class and/or clinical if applicable.</u>

#### **CLASS SCHEDULE**

Full-time students attend class from 8:15 AM to 4:15 PM Monday through Thursday with a 30 minute lunch period. This schedule provides 7.5 hours of instruction each day for a total of 30 hours per four-day week, excluding holidays and school breaks as outlined in the current school calendar.

#### ATTENDANCE POLICY

In an effort to develop appropriate work ethics, Lake Tech students are expected to attend all class sessions. As is expected in the workplace, when it is necessary to be absent due to illness or emergency situations, all students are to notify the faculty on or before the date of absence. The student attendance policy for each postsecondary program is consistent with industry standards.

Campus attendance is kept via a computerized system. It is the responsibility of the student to **log in** <u>and</u> **out** in order to receive credit for class time. This allows the school to keep accurate attendance records for the actual number of hours and minutes attended.

### **Absences**

A student who is absent for six (6) consecutive class sessions will be withdrawn from enrollment in his/her program. A student withdrawn for absenteeism must petition administration to return. A student having medical documentation or documentation of an extenuating circumstance does not need to petition to return. Students exhibiting a pattern of consecutive absences less than six days will be subject to dismissal as determined by a School Intervention Team.

Students in non-licensure programs must have achieved a minimum of 80% attendance at the end of each quarter. Students not having met this requirement will be formally notified that continued absences will pose a threat to grades and program enrollment. School Intervention Team meetings will be held as necessary to attempt to alleviate issues resulting in excessive absences and to counsel the student of possible alternatives and consequences. Students who miss more than 20% of their program will not be allowed to re-enroll the next semester and must wait until the following enrollment period to re-register unless the student's appeal to the Executive Director has been approved. Only regularly scheduled class hours will be reported for attendance.

# **Tardiness**

As in the workplace, students are expected to be in their seats promptly in the morning, after break, and after lunch. Students are expected to notify the faculty before the start of class of any anticipated tardies.

# **Leaving Campus During School Hours**

For safety reasons, students will notify their faculty when leaving campus early. Students may leave campus for lunch provided this is done within the allotted time.

#### PLAN OF INSTRUCTIONAL PRACTICES

## **Teaching Methods**

Lecture, demonstration, discussion, group interaction, verbal and written quizzes, skill practice, individualized instruction, projects, journals, reports, simulations, hands-on computer experience, collaborative learning, computerized tutorials, interactive learning, web-based learning, guest speakers, field trips, customer service projects, program job shadowing, cooperative on-the-job training and web-based courses are among the teaching methods utilized.

Among the provisions made to allow for individual differences are pre-testing to determine entry level, workbooks and study guides for progress at individual rate, progress grading, individualized instruction, individual project assignments, and referral for basic skills remediation. Curriculum may be adapted to meet the individual needs and individual goals of students

## **Online Access**

Technology is an integral part of our daily lives. From smart phones to electronic tablets, these devices are becoming items that many cannot function without. In addition, the Internet is changing the way education is delivered. Lake Technical College strives to ensure that our students are able to compete in this technology driven world. With this in mind, it is recommended that students have an online presence and access to the internet

It is also important that students have an email address that they check on a regular basis. A lot of information may come to you through your email, so it is important that you check it regularly. If you do not have an email address, there are numerous services that provide FREE email addresses. Please make sure your faculty have a current, working email address for you. See your faculty for more information.

## **Social Media**

The advent of social media has created a world-wide communication medium for persons of all ages. While extremely popular, these websites have also created their own set of "not-so-popular" problems such as cyber-stalking, identity theft, cyber-bullying, cyber-cheating (posting of exam, or other course material), and a host of other nebulous challenges that users may face. Another reality associated with social media is its far-reaching consequences for those who share posts that may be seen by others as inappropriate.

Potential employers, current employers, civic, or educational organizations you may be associated with, and many others are looking at social media sites for information that may tell them things about an individual. Students should also be cautioned on how private their social media content really is – despite the settings on an account. All social media sites are potentially vulnerable. A simple search of how to view pages that are set as "private" for a popular social media website yielded numerous responses for ways to view the content. Everything from blogs to online videos offer to explain how to accomplish this task.

Students in all programs need to be cognizant of the fact that most professions rely on great moral character. It is recommended that when using social media, assume that all posts will be seen/read by everyone with access to the internet.

#### **Evaluation**

Class performance, quizzes, tests, attendance, portfolio assessments, completion of project assignments, decision-making, professional skills, achievement of entry-level competencies, and other methods are used for evaluation. See "Grading Procedures".

### **Work Based Activities**

Work-based learning activities play an integral part of the curriculum of LTC's career-technical training programs. These activities are planned with two objectives in mind. First, the activity provides students with the opportunity to develop and apply a "real world" experience using the knowledge and skills attained in the program. Second, the activity provides the faculty with objective input from potential employers or customers of program graduates. Each work-based activity has a written instructional plan outlining objectives, experiences, competencies and evaluation required during the activity.

Work-based activities are program specific and may include:

- Unpaid in-school shop/lab activities to provide customer service opportunities under the direct supervision of the program faculty.
- Unpaid job shadowing experiences that may include in-school or off-campus employer-based experiences under the supervision of a qualified employer representative who is working closely with the program faculty.
- Paid or unpaid cooperative training experiences conducted at the employer's work location under the supervision of a qualified employer representative and under the direction of the program faculty.

# **Cooperative Education**

Cooperative training is available for students and coordinated by the faculty. Cooperative training is for students who have shown competence in program training that indicates readiness for placement in an on-the-job program. High school students participating in the cooperative job placement program must be in at least grade 12. To be eligible for a cooperative education experience, students must have completed one-half the required program hours and requirements.

Students may be returned to the program for additional training if they do not function satisfactorily on the job or when the cooperative agreement is terminated at the request of the student, parent, employer, or program faculty. Veterans will be accepted into the program in accordance with the Department of Veterans Affairs approved program.

Additional information regarding co-op opportunities may be obtained from the program faculty.

# Job Shadowing

Job shadowing experiences, or volunteer experiences, are available to students as part of their program training. These experiences are designed to give the student actual hands-on experience doing a variety of related tasks. Length and type of experiences will vary. The program faculty determines appropriateness of the experience. Additional information regarding job-shadowing experiences may be obtained from the program faculty.

## **Career Dual Enrollment Students**

All students enrolled in Lake Technical College are expected to function as adults. High school students will be held to the same behavioral and performance standards as adult students.

#### **GRADING PROCEDURE**

# **Grading Scale**

The grading policy for this program is as follows:

94 – 100 Excellent
 87 – 93 Average
 80 – 86 Below Average

< 80 Failing

Lake Technical College is a postsecondary institution designed to provide trained individuals to industry. The grading scale for this program reflects industry standards. The approved postsecondary program grading requirements must be met if the student is to receive a certificate.

Program grades are based on the three criteria: Skills, Knowledge, and Professional Skills. Each area counts as one-third of the course grade. A minimum grade of 80% in each area is required in order to receive a passing grade. If a student's grade is below 80%, the student will be counseled as to what steps need to be taken to bring the grade to a satisfactory level.

## **Program Progress**

Students are expected to complete the program of training within the hours allotted by the State of Florida for completion. The student's rate of progress will be closely monitored by the faculty to ensure program completion in a timely manner.

### Requirements for a Certificate

All competencies specified in the State of Florida Curriculum Framework for the program must be successfully completed with at least an 80% in the areas of skills, knowledge, and professional skills. Students must also meet minimum TABE requirements prior to graduation.

### **Professional Skills**

Effective professional skills are the cornerstone to successful employment. Students are expected to demonstrate productive professional skills during all phases of enrollment. Faculty will work with students who need assistance in this area to improve the overall possibility for successful employment.

**Attendance:** Attends class for all scheduled hours assigned, arrives/leaves on time, contribute to class discussion and is actively involved in all activities.

**Character:** Displays academic integrity (inclusive of not committing plagiarism), trustworthiness, dependability, reliability, self-discipline, and self-responsibility.

**Teamwork:** Respects the rights of others; is a team worker; is cooperative; ensures confidentiality in all classroom, clinical and other matters; demonstrates professional behavior in interactions with peers, preceptors, and faculty.

**Appearance:** Displays appropriate dress, grooming, hygiene, and wears full regulation uniform of the day.

**Attitude:** Displays a willingness to cooperate and accept constructive criticism; sets realistic expectations; approaches assignments with interest and initiative.

**Productivity:** Follows safety practices; conserves materials and supplies; maintains equipment; stays on task and utilizes time constructively; demonstrates proactive leaning through involvement in activities and contributions to class discussions.

**Organization:** Manifests skill in prioritizing and management of time and stress; demonstrates flexibility in handling change; completes assignments on time; uses work time appropriately.

**Communication:** Contacts faculty to report concerns; notifies faculty of tardy/absence one hour before start of class; seeks clarification and understanding through appropriate, pertinent questions.

**Leadership:** Displays leadership skills; appropriately handles conflict and concerns; demonstrates problem-solving capability; maintains appropriate relationships with supervisors/faculty and peers; follows the chain of command. **Respect:** Deals appropriately with cultural/racial diversity; does not engage in harassment of any kind to include but

not limited to verbal, nonverbal, and written; addresses faculty and peers in appropriate tone and with appropriate language to include but not limited to electronic (email, text, etc.) communications.

## **CLASSROOM RULES**

### Students will:

- 1. Maintain a neat, clean, appropriate appearance.
  - When in uniform, be dressed according to the dress code.
  - Notify a faculty ½ hour prior to expected arrival time regarding tardiness or absences.
  - Seek permission and follow procedure to leave early when necessary.
  - Return from breaks and meal times at the specified time.
- 2. Respect the rights of others.
  - Be attentive and polite.
  - Do not distract neighbors thus preventing others from learning.
  - Respect the property of others.
  - Be patient and considerate of others.
  - Pay attention.
  - Think before speaking to avoid misunderstanding.
  - Be respectful of others opinions and questions.
- 3. Demonstrate good interpersonal relationships with peers and faculty.
  - Exhibit a congenial and cooperative attitude with others.
  - Show respect for faculty and peers.
- 4. Contribute to a learning atmosphere.
  - Assist classmates if able and time is appropriate.
  - Contribute new or pertinent material on topic when appropriate.
  - Make good use of classroom/laboratory time.
- 5. Take responsibility for own learning.
  - Come to class prepared.
  - Complete assignments and participate in class discussions.

- 7. Respect school property.
  - Always leave the classroom and lab areas neater than found.
  - Do not eat, drink, or smoke except in designated areas.
  - Do not deface property of others.
  - Students will not use College copiers for personal use.

# **REASONS FOR DISMISSAL FROM PROGRAM**

- 1. Unsatisfactory academic, lab or professional skills.
- 2. Cheating in any manner.
- 3. Violations of the attendance policy.
- 4. Failure to satisfy identified probationary requirements within the stated time.
- 5. Failure to comply with requirements as stated in the Master Plan of Instruction.

#### STUDENT DRESS CODE

Students who attend Lake Tech shall dress in a manner appropriate for the job in which they are receiving training, including any special protective gear and professional uniforms. All clothing must be clean, neat, modest, in good repair, appropriately sized, and be neither distracting nor offensive. Jewelry and makeup, if worn, must be in accordance with the program Master Plan of Instruction. Please refer to the Master Plans of Instruction for individual program dress code policies.

The Director or designee has the final authority for determining whether or not a student's apparel conforms to the dress code. If it is determined that it does not, students will be required to change into clothing which will conform to this code or leave campus. Students may return to campus when they have changed into appropriate clothing.

Students are expected to wear the LTC Enterprise Desktop and Mobile Support Technology uniformed shirt each day to class and if on assignment, a Job Shadow, or Co-op. No shorts are permitted. On other designated days, students will be required to dress in business attire suitable for a job interview. This is defined to be clothing that would be acceptable for most job candidates to wear to a standard job interview. If a student is absent on a designated day, they will dress in normal business attire or business attire suitable for a job interview on their next day of attendance. Designated days will be announced at least five class days in advance.

<u>NOTE</u> - Remember that you are preparing for employment in a position in which public relations may be a factor in your success. Individual desires cannot always take precedence.

#### **GENERAL SCHOOL INFORMATION**

### **Campus Safety**

Lake Technical College makes every effort to provide a safe environment for all students, visitors, faculty and staff. Basic safety standards, which will include fire drills, weather drills, equipment usage, and traffic regulations, will be covered in the program orientation. These basic safety standards will be reinforced throughout the program enrollment. See the current school catalog for additional campus safety information.

## **Competency-based Instruction**

Any student who enters a LTC program with previous experience or educational background that would enable the student to successfully complete a test of competence in any area may, with the permission of the faculty, complete a test to measure that competence.

## **Follow Up**

Lake Technical College is proud of its graduates and celebrates the next step graduates take whether it is employment, military or further education. Prior to completing, students may visit the Career Success Center for assistance with employability skills such as resume writing. In addition, faculty may provide students with employment leads. However, it is up to the individual student to actively pursue employment opportunities. We like to hear how our graduates are doing and want to celebrate your successes so be sure to communicate with your faculty any employment, military, or further education you enter. Students are required to participate in an Exit Interview prior to their last day in their program.

## **Food and Drink**

To protect equipment and furnishings in the classroom and laboratory areas, only water, in closed, covered containers, is permitted. No other food or drinks are allowed, unless specific permission is granted by the faculty. However, under no circumstance may food or drinks be in the laboratory areas.

### Lunch

Food services are provided on the main campus by the Culinary Institute and are available during breaks and lunch.

Adult students may leave the LTC campus during the scheduled 30-minute lunch break as long as they return to the program on time.

## **Parking Regulations**

Students may park only in the south parking lot in spaces not designated as staff or customer service parking. For safety, loitering in or around vehicles once the vehicle is parked is not allowed, and a 5 mph speed limit is enforced. In consideration of the neighbors and classes in session, loud music in vehicles on campus is prohibited.

# **Smoking**

Lake Tech is a tobacco free institution. The use of tobacco products of any kind, including e-cigarettes, is not permitted at any Lake Tech location. This includes the parking lots.

#### **FINANCIAL AID**

Policies and guidelines for the administration of all financial aid are established according to federal and state law. Applicants complete an information form, Free Application for Federal Student Aid, and furnish documentation needed to verify eligibility. More information on the application process may be obtained in the Financial Aid Office.

The Financial Aid Office will assist students, where possible, with access to financial support offered by federal agencies (U.S. Department of Education – Pell Grants, Department of Veterans' Affairs), other state and local agencies and local organizations (scholarships).

# **Program Occupation Completion Points/Courses**

ОСР	Course Number	Course Title	Teacher Certification	Length	SOC Code
Α	CTS0000	Computer Hardware Fundamentals		150 hours	15-1151
^	CTS0001	Operating System Fundamentals	BUS ED 1 @2 COMPU SCI 6 COMP SVC 7G	150 hours	15-1151
В	CTS0002	Advanced Operating Systems		150 hours	15-1151
	CTS0003	Mobile-Security-Domain Environment Fundamentals	INFO TECH 7 G	150 hours	15-1151
С	CTS0005	Desktop Support Technician	CYBER TECH 7 G	150 hours	15-1151
D	CTS0020	Network Fundamentals	ELECTRONIC @77G	150 hours	15-1152
	CTS0033	Network Technician		150 hours	15-1152

#### **Laboratory Activities**

Shop or laboratory activities are an integral part of this program. These activities provide instruction in the use of tools, equipment, materials, and processes found in the industry. Students will use various types of precision test equipment for analyzing, troubleshooting, and repairing computer circuitry.

# **Intended Outcomes**

After successfully completing this program, the student will be able to perform all tasks as set forth in the Florida Department of Educational Curriculum Framework (attached).

## Florida Department of Education Curriculum Framework

Program Title: Enterprise Desktop and Mobile Support Technology

**Program Type: Career Preparatory** 

Career Cluster: Information Technology

PSAV						
Program Number	Y300600					
CIP Number	0511100124					
Grade Level	30, 31					
Standard Length	1050 hours					
Teacher Certification	Refer to the Program Structure section.					
СТЅО	SkillsUSA Phi Beta Lambda BPA					
SOC Codes (all applicable)	15-1151 Computer User Support Specialists 15-1152 Computer Network Support Specialists					
CTE Program Resources	http://www.fldoe.org/academics/career-adult-edu/career-tech-edu/program-resources.stml					
Basic Skills Level	Mathematics: 10 Language: 10 Reading: 10					

## **Purpose**

The purpose of this program is to prepare students for employment or advanced training in a variety of occupations in the information technology industry.

This program focuses on broad, transferable skills and stresses understanding and demonstration of the following elements of the information technology industry; technical and product skills, underlying principles of technology, planning, management, finance, labor issues, community issues and health, safety, and environmental issues.

The content includes but is not limited to communication, leadership skills, human relations and employability skills; and safe, efficient work practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

#### **Program Structure**

This program is a planned sequence of instruction consisting of four occupational completion points. When the recommended sequence is followed, the structure is intended to prepare students to complete the CompTIA A+ and Network+ industry certifications. A student who completes the applicable competencies at any occupational completion point may either continue with the training or become an occupational completer.

This program is comprised of courses which have been assigned course numbers in the SCNS (Statewide Course Numbering System) in accordance with Section 1007.24 (1), F.S. Career and Technical credit shall be awarded to the student on a transcript in accordance with Section 1001.44(3)(b), F.S.

To teach the courses listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the postsecondary program structure:

ОСР	Course Number	Course Title	Teacher Certification	Length	SOC Code
Α	CTS0000	Computer Hardware Fundamentals	DUO ED 4 @ 0	150 hours	15-1151
	CTS0001	Operating System Fundamentals	BUS ED 1 @2 COMPU SCI 6	150 hours	15-1151
В	CTS0002	Advanced Operating Systems	COMP SVC 7G	150 hours	15-1151
	CTS0003	Mobile-Security-Domain Environment Fundamentals	INFO TECH 7 G	150 hours	15-1151
С	CTS0005	Desktop Support Technician	CYBER TECH 7 G	150 hours	15-1151
D	CTS0020	Network Fundamentals	ELECTRONIC @77G	150 hours	15-1152
	CTS0033	Network Technician		150 hours	15-1152

# <u>Common Career Technical Core – Career Ready Practices</u>

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

- 1. Act as a responsible and contributing citizen and employee.
- 2. Apply appropriate academic and technical skills.
- 3. Attend to personal health and financial well-being.
- 4. Communicate clearly, effectively and with reason.
- 5. Consider the environmental, social and economic impacts of decisions.
- 6. Demonstrate creativity and innovation.
- 7. Employ valid and reliable research strategies.
- 8. Utilize critical thinking to make sense of problems and persevere in solving them.
- 9. Model integrity, ethical leadership and effective management.
- 10. Plan education and career path aligned to personal goals.
- 11. Use technology to enhance productivity.
- 12. Work productively in teams while using cultural/global competence.

#### **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Identify characteristics of medium size enterprise information systems as a business unit and its critical role and purpose in successful and efficient business operation.
- 02.0 Demonstrate proficiency using enterprise-class computer/devices connectors, jacks, plugs, cables and their function, versions and purpose.
- 03.0 Demonstrate proficiency with motherboards, CPU options, system components, BIOS types and BIOS-UEFI configurations options.
- 04.0 Demonstrate proficiency with tools, ESD concepts-procedures, personal and equipment safety and chemicals related to maintenance and repair of computers, mobile devices, peripherals, printers and network devices.
- 05.0 Demonstrate an understanding of storage, video, audio, display, and network-cellular found in the business/enterprise.

- 06.0 Demonstrate proficiency in building a basic PC system using standard components, following best practices in equipment and personal safety, following manufactures' procedures and steps for every component involved in the system.
- 07.0 Demonstrate proficiency with installation and configuration of enterprise desktop-laptop operating systems.
- 08.0 Demonstrate proficiency installing and configuring expansion cards, RAM, storage devices, video adapters, audio, and a variety of system components.
- 09.0 Demonstrate proficiency in installing, updating and troubleshooting drivers in desktop-laptop-tablet devices.
- 10.0 Demonstrate proficiency with PC Laptop specification for purchase— Laptop systems for a variety of corporate functions such as, basic desktop user, CAD, CAE, video-audio editing and client-side virtualization.
- 11.0 Demonstrate the importance of health, safety, and environmental procedures in organizations and their importance to organizational and personal performance and regulatory compliance.
- 12.0 Demonstrate proficiency in connecting, configuring and troubleshooting multi-displays, data projectors, smart boards, and document cameras and kiosks systems.
- 13.0 Demonstrate proficiency of installing, configuring and troubleshooting enterprise desktop-laptop operating systems in a network environment.
- 14.0 Demonstrate proficiency of installing and configuring and troubleshooting variety of business applications in a network environment.
- 15.0 Demonstrate proficiency in configuring and troubleshooting basic desktop, laptop network connectivity, including software, services, cables, switches, and access points.
- 16.0 Understanding the fundamentals of active directory domains, organization units, the role of computers and users in that environment and how the technician interacts with this secure environment.
- 17.0 Describe the roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment.
- 18.0 Describe the importance of professional ethics and legal responsibilities.
- 19.0 Explain and demonstrate the basic features of mobile operating systems.
- 20.0 Establish mobile network connectivity and configure email, and applications and configure application synchronization.
- 21.0 Configure, compare and contrast methods for mobile security and hardware platforms.
- 22.0 Identify and enterprise attack vectors, remove malware, viruses, and other security risk software from desktops, laptop, and mobile devices.
- 23.0 Demonstrate proficiency identifying, and mitigating malicious threats using social and human elements in the workplace.
- 24.0 Demonstrate leadership and teamwork skills needed to accomplish team goals and objectives.
- 25.0 Identify and compare and contrast business type printers.
- 26.0 Install, configure and troubleshooting directly connected printers and share to the local network.
- 27.0 Install, configure and troubleshooting server-based printers and validate the clients printing functionality.
- 28.0 Demonstrate command-line fundamentals, including hard drive navigation, network tools, basic scripts and the fundamentals of PowerShell.
- 29.0 Demonstrate proficiency in share permissions and file and folder security including fundamentals of domain users, local users, groups in an active directory environment.
- 30.0 Demonstrate the fundamentals of network architectural structure of LANs, fundamentals and roles of the network switch, router and WAN.
- 31.0 Demonstrate proficiency in tools and equipment for troubleshooting network connectivity.
- 32.0 Demonstrate the use of network services including DNS, DHPC, cellular, cloud services and applications.
- 33.0 Demonstrate the fundamentals TCP/IP, OSI and Internet models of network layer addressing.
- 34.0 Setup and configure basic VoIP telephony functionality for business users.
- 35.0 Setup and configure VPN on desktop, tablet, and laptop platforms.
- 36.0 Demonstrate proficiency installing, configuring, and troubleshooting management system agents, anti-virus, group policy objects, operating systems and applications updates.
- 37.0 Demonstrate proficiency in installing, configuring and troubleshooting client-side virtualization.
- 38.0 Demonstrate proficiency with different operating systems.
- 39.0 Demonstrate proficiency of user data backup, configuration, and recovery.
- 40.0 Demonstrate troubleshooting of PC and laptop hardware failures.
- 41.0 Demonstrate troubleshooting of PC-laptop boot failures, BSOD, shutdown, devices failing to start, missing DLL message.
- 42.0 Describe the operation of data networks.
- 43.0 Differentiate between various network media and topologies.
- 44.0 Identify, install, and configure basic network devices.

- 45.0 Implement an IP addressing scheme to meet network requirements.
- 46.0 Demonstrate use of network management tasks and methodologies.
- 47.0 Demonstrate proficiency using basic network tools.
- 48.0 Demonstrate an understanding of network security threats and mitigation techniques.
- 49.0 Configure, verify and troubleshoot a switch with VLANs and interswitch communications.
- 50.0 Implement an IP addressing scheme and IP Services to meet network requirements in a medium-size Enterprise branch office network.
- 51.0 Understand basic router operation.
- 52.0 Demonstrate Proficiency with configuring and troubleshooting a WLAN.
- 53.0 Demonstrate Proficiency with configuring and troubleshooting a Server.
- 54.0 Demonstrate Proficiency with configuring and troubleshooting a VPN.
- 55.0 Demonstrate Proficiency with configuring and troubleshooting a VOIP.
- 56.0 Demonstrate Proficiency with configuring and troubleshooting Virtualization.