

eDynamic Learning Course Title: Computer Maintenance 1a / 1b

State: TX
State Course Title: Computer Maintenance
State Course Code: 130.303
State Standards: Information Technology
Date of Standards: 2015

TEKS	Course Title (a or b), if applicable, e.g. Game Design 1a	Unit Name(s)	Lesson(s) Numbers
(1) The student demonstrates professional standards/employability skills as required by business and industry.			
(A) employ effective reading and writing skills;	Computer Maintenance 1a	Unit 4: Operational Procedures for Optimal Network Performance	Activity 1
(B) employ effective verbal and nonverbal communication skills;	Computer Maintenance 1a	Unit 4: Operational Procedures for Optimal Network Performance	Activity 1
(C) solve problems and think critically;	Computer Maintenance 1a	Unit 1: Software Applications	Lesson 5
(D) demonstrate leadership skills and function effectively as a team member;	Computer Maintenance 1a	Unit 4: Operational Procedures for Optimal Network Performance	Activity 1
(E) identify and implement proper safety procedures;	Computer Maintenance 1a	Unit 4: Operational Procedures for Optimal Network Performance	Lesson 3
(F) demonstrate an understanding of legal and ethical responsibilities in relation to the field of IT; and	Computer Maintenance 1a	Unit 4: Operational Procedures for Optimal Network Performance	Lessons 4, 5
(G) demonstrate planning and time-management skills such as project management , including initiating, planning, executing, monitoring and controlling, and closing a project .	Computer Maintenance 1a	Unit 2: Operating Systems	Activity 1
(2) The student identifies various employment opportunities in the IT field.			
(A) identify job opportunities and accompanying job duties and tasks; and	Computer Maintenance 1a	Unit 1: Software Applications	Activity 1
(B) examine the role of certifications, resumes, and portfolios in the IT profession.	Computer Maintenance 1a	Unit 1: Software Applications	Activity 1
(3) The student applies academic skills to the requirements of computer technologies.			
(A) demonstrate effective verbal and written communication skills with individuals from varied cultures such as fellow workers, management, and customers; and	Computer Maintenance 1a	Unit 4: Operational Procedures for Optimal Network Performance	Activity 1
(B) interpret appropriate documentation such as schematics, drawings, charts, diagrams, technical manuals, and bulletins.	Computer Maintenance 1a	Unit 4: Operational Procedures for Optimal Network Performance	Lesson 2
(4) The student acquires an understanding of computer hardware technologies.			
(A) explain the fundamentals of microprocessor theory;	Computer Maintenance 1a	Unit 7: Motherboards, CPUs and RAM	Lesson 4

(B) define the use of Boolean and Binary logic in computer technologies;	Computer Maintenance 1a	Unit 4: Operational Procedures for Optimal Network Performance	Lessons 1, 2
(C) explain the theories of magnetism, electricity, and electronics as related to computer technologies;	Computer Maintenance 1a	Unit 5: Power and Peripherals	Lessons 1, 2
(D) explain proper troubleshooting techniques as related to computer hardware;	Computer Maintenance 1a	Unit 7: Motherboards, CPUs and RAM	Lesson 6
(E) differentiate among digital and analog input and output electronics theory;	Computer Maintenance 1a	Unit 5: Power and Peripherals	Lesson 1
(F) explain the relationships relative to data-communications theory;	Computer Maintenance 1a	Unit 4: Operational Procedures for Optimal Network Performance	Lesson 1
(G) describe the architecture of various computer systems;	Computer Maintenance 1a	Unit 7: Motherboards, CPUs and RAM	Lesson 1
(H) describe the function of computer components such as central processing units, storage devices, and peripheral devices;	Computer Maintenance 1a	Unit 5: Power and Peripherals	Lesson 3
(I) explain computer system environmental requirements and related control devices; and	Computer Maintenance 1a	Unit 4: Operational Procedures for Optimal Network Performance	Lesson 3
(J) identify new and emerging technologies that may affect the field of computer technology.	Computer Maintenance 1b	Unit 1: Mobile Devices and Laptops	Lesson 4
(5) The student uses hardware design, operation, and maintenance knowledge and skills to identify major computer components.			
(A) identify the purpose and function of computer components in the operation of the computer system such as central processing unit, mother board, sockets, chipsets, basic input and output system and their drivers, memory, hard drive technologies, video cards, input and output devices and ports, and modem and network interface cards (NIC);	Computer Maintenance 1a	Unit 5: Power and Peripherals	Lesson 3
(B) identify how mobile devices such as personal data assistants and cell phones operate;	Computer Maintenance 1b	Unit 1: Mobile Devices and Laptops	Lesson 2
(C) identify how mobile devices such as personal data assistants and cell phones connect and share data;	Computer Maintenance 1b	Unit 1: Mobile Devices and Laptops	Lessons 2, 3
(D) demonstrate an understanding of the rationale behind error messages and symptoms of hardware failures;	Computer Maintenance 1a	Unit 7: Motherboards, CPUs and RAM	Lesson 6
(E) research interrupt sequences and beep codes; and	Computer Maintenance 1a	Unit 7: Motherboards, CPUs and RAM	Activity 1, 2
(F) identify priorities and interrupts at the system level.	Computer Maintenance 1a	Unit 7: Motherboards, CPUs and RAM	Activity 2
(6) The student acquires knowledge of operating system design, including operation and maintenance.			
(A) explain the fundamentals of an operating system;	Computer Maintenance 1a	Unit 2: Operating Systems	Lesson 1
(B) compare and contrast different operating systems; and	Computer Maintenance 1a	Unit 2: Operating Systems	Lesson 1
(C) identify the operating systems of mobile devices.	Computer Maintenance 1a	Unit 2: Operating Systems	Lesson 1

(7) The student acquires knowledge of the theory behind the installation, configuration of software programs, and updates in IT systems.			
(A) identify the operational features and proper terminology related to computer software systems;	Computer Maintenance 1a	Unit 1: Software Applications	Lesson 1
(B) evaluate application software packages;	Computer Maintenance 1a	Unit 1: Software Applications	Lesson 1
(C) verify that software is properly licensed prior to installation;	Computer Maintenance 1a	Unit 1: Software Applications	Lesson 2
(D) differentiate between types of software such as Software as a Service, single-user, per-seat, enterprise, freeware, shareware, and open-source licensing; and	Computer Maintenance 1a	Unit 1: Software Applications	Lesson 2
(E) explain proper troubleshooting techniques related to computer software.	Computer Maintenance 1a	Unit 1: Software Applications	Lesson 5
(8) The student acquires knowledge of the installation and configuration of network connections.			
(A) explain the fundamentals of network connections and interface requirements;	Computer Maintenance 1b	Unit 2: Network Fundamentals	Lessons 1-5
(B) explain the steps required to install and configure a computer on a network; and	Computer Maintenance 1b	Unit 2: Network Fundamentals	Lessons 1-5
(C) identify the steps to troubleshoot network connectivity.	Computer Maintenance 1b	Unit 4: Network Hardware Devices	Lesson 5