TEXAS TECH UNIVERSITY
TTU K-12™

To the Student:

After your registration is complete, you may take the online Credit by Examination for PRINIT 1A.

ABOUT THE EXAM

The examination for Principles of Information Technology 1A consists of 71 multiple choice, true/false, matching, and short essay questions. The exam is based on the Texas Essential Knowledge and Skills (TEKS) for this subject. The full list of TEKS is included in this document (it is also available online at the Texas Education Agency website). The TEKS outline specific topics covered in the exam, as well as more general areas of knowledge and levels of critical thinking. Use the TEKS to focus your study in preparation for the exam. TEKS covered in this semester are indicated by a checkmark; the exam will focus on the checkmarked TEKS, but may touch on any of the full list.

The examination will take place under supervision, and the recommended time limit is three hours. You may not use any notes or books. A percentage score from the examination will be reported to the official at your school.

EXAM PREPARATION

To prepare for the CBE, you *must* have experience with the following software:

- Microsoft Windows XP or later

- Any Internet browser

- A word processing program in an office suite: **OpenOffice.org Write is the suggested program; however, you may also use Microsoft Word 2003 or later.** OpenOffice.org is a free program you can download and install on your computer. (Do *not* use Microsoft Works to prepare for this exam.)

You may refer to any computer textbook for study material, and you will need to use the Help feature on your computer. The Internet is a great source for information; use a search engine like Google to find help, and practice using your software. It is important to prepare adequately.

Good luck on your examination!

PRINIT 1A Key Concepts

Before taking this exam, the student should be able to do the following:

- demonstrate necessary skills for career development and employability;

- demonstrate knowledge of the different hardware components and software associated with information systems;

- understand legal and ethical procedures as they apply to the use of information technology; and

- apply word processing, database, spreadsheet, and presentation software to solve common business problems.

Texas Essential Knowledge and Skills
PRINIT 1A – Principles of Information Technology, First Semester

TTU: PRINIT 1A CBE, v.1.0	
TEKS: §130.272. Principles of Information Technology (One-Half Credit)	
TEKS Requirement (Secondary)	**TEKS Covered**
§130.272. Principles of Information Technology (One-Half to One Credit).	
(a) General requirements. This course is recommended for students in Grades 9-10.	
(b) Introduction. Students develop computer literacy skills to adapt to emerging technologies used in the global marketplace. Students implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. Students enhance reading, writing, computing, communication, and reasoning skills and apply them to the information technology environment.	
(c) Knowledge and skills.	
(1) The student demonstrates the necessary skills for career development, employability, and successful completion of course outcomes. The student is expected to:	
(A) identify and demonstrate positive work behaviors that enhance employability and job advancement such as	✓
regular attendance, promptness, attention to proper attire, maintenance of a clean and safe work environment, appropriate voice, and pride in work;	✓
(B) identify and demonstrate positive personal qualities such as flexibility, open-mindedness, initiative, listening attentively to speakers, and willingness to learn new knowledge and skills;	✓
(C) employ effective reading and writing skills;	
(D) employ effective verbal and nonverbal communication skill;	
(E) solve problems and think critically;	
(F) demonstrate leadership skills and function effectively as a team member;	
(G) identify and implement proper safety procedures;	
(H) demonstrate an understanding of legal and ethical responsibilities in relation to the field of information technology; and	✓
(I) demonstrate planning and time-management skills such as project management and storyboarding.	
(2) The student identifies various employment opportunities in the information technology field. The student is expected to:	
(A) identify job opportunities and accompanying job duties and tasks;	
(B) research careers of personal interest along with the education, job skills, and experience required to achieve personal career goals; and	
(C) describe understanding of the functions of resumés and portfolios.	✓
(3) The student uses emerging technologies to exchange information. The student is expected to:	
(A) identify and describe functions of various new and emerging technologies;	
(B) send and receive text information and file attachments using electronic methods such as email, electronic bulletin boards, and instant message services;	
(C) demonstrate effective Internet search strategies, including keywords and Boolean logic using various available search engines;	✓
(D) dissect and identify the various components of a Uniform Resource Locator;	
(E) demonstrate ability to effectively test acquired information from the Internet for accuracy, relevance, and validity;	
(F) explain issues concerning Internet security protocols such as computer viruses, online predators, hacking, and identity theft;	
(G) define and identify unethical practices such as hacking, phone fraud, online piracy, and data vandalism; and	
(H) demonstrate ethical use of Internet and online resources, including citation of source.	✓
(4) The student demonstrates knowledge of the hardware components associated with information systems. The student is expected to:	

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TEKS Requirement (Secondary)	**TEKS Covered**
(A) identify the different computer classifications such as minicomputer, mainframe, and microcomputer;	✓
(B) identify major hardware components and their functions such as the central processor unit, input and output peripherals, and storage systems and devices;	✓
(C) use available reference tools such as user manuals, both online and written, as appropriate;	✓
(D) demonstrate understanding of the process of connecting peripheral devices; and	
(E) demonstrate proficiency in the use of a variety of input devices such as mouse, keyboard, microphone, digital camera, printer, scanner, and optical disk reader.	✓
(5) The student demonstrates knowledge of the different software associated with information systems. The student is expected to:	
(A) differentiate between systems and application software;	
(B) identify and understand major operating system fundamentals and components;	
(C) identify the function and operation of compilers and interpreters;	
(D) identify various computer languages and how the languages are used in software development;	
(E) recognize data representation in software development such as string, numeric, character, integer, and date;	
(F) demonstrate understanding of file extensions and the purpose of file types across software products;	✓
(G) recognize computer numbering systems and internal data representation;	
(H) identify appropriate use of application software;	✓
(I) identify new and emerging classes of software;	
(J) identify open source and proprietary licenses;	
(K) demonstrate proper use of system management tools; and	
(L) demonstrate proper file management techniques such as creating, naming, organizing, copying, moving, and deleting files.	
(6) The student analyzes network systems. The student is expected to:	
(A) identify hardware associated with telecommunications and data networking such as servers, routers, switches, hubs, and network connectors;	✓
(B) identify and describe various types of networks such as peer-to-peer, local area networks, wide area networks, wireless token ring, and Ethernet;	✓
(C) identify and describe functions of network operating systems; and	✓
(D) explain troubleshooting techniques for various network connection issues.	✓
(7) The student applies word-processing technology. The student is expected to:	
(A) identify the terminology associated with word-processing software and its functions;	✓
(B) improve the touch-system skill using the keyboard and keypad to input data;	✓
(C) edit a variety of text documents using functions such as pagination, appropriate white space, tab settings, and font style, size, and color;	✓
(D) create professional letters using advanced word-processing features;	✓
(E) apply formatting techniques to a multipage research paper using approved publication standards such as American Psychological Association and Modern Language Association;	✓
(F) produce desktop publishing documents incorporating both text and graphics such as business cards, newsletters with mastheads, and advertisement flyers; and	✓
(G) demonstrate file protection and security.	✓
(8) The student applies spreadsheet technology. The student is expected to:	
(A) identify the terminology associated with spreadsheet software and its functions;	

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TEKS: §130.272. Principles of Information Technology (One-Half Credit)	
TEKS Requirement (Secondary)	**TEKS Covered**
(B) format and organize numerical content to perform mathematical processes such as addition, subtraction, multiplication, and division; percentages and decimals; and order of operations principle;	
(C) employ both student-created formulas and preprogrammed functions to produce documents such as budget, payroll, statistical tables, and personal checkbook register;	
(D) create and analyze spreadsheets incorporating advanced features such as lookup tables, nested IF statements, subtotals, cell protection conditional formatting, charts, and graphs; and	
(E) edit a variety of spreadsheets by performing data management procedures using simple and multiple search parameters to locate, sort, search, and filter data.	
(9) The student applies database technology. The student is expected to:	
(A) identify the terminology associated with database software and its functions;	
(B) create, populate, edit, maintain, and save database files;	
(C) differentiate the nature and interrelationships of fields and records;	
(D) perform data management procedures such as locating, sorting, searching, querying, organizing, and outputting data;	
(E) use data management procedures using multiple search parameters; and	
(F) produce organized reports with calculated figures.	
(10) The student applies presentation management technology. The student is expected to:	
(A) identify the terminology associated with presentation software and its functions;	
(B) create, save, edit, and produce presentations with appropriate handouts and speaker notes; and	
(C) create a non-linear presentation incorporating links, hyperlinks, audio, and graphics.	
(11) The student applies design and web publishing techniques. The student is expected to:	
(A) identify the terminology associated with web page editing software and its functions;	
(B) identify the terminology associated with interactive media;	
(C) identify and describe design principles such as contrast, repetition, alignment, and proximity;	
(D) identify and describe types and styles of typeface used for publications such as serif and sans serif; and	✓
(E) create a web page containing links, graphics, and text.	
(12) The student understands and demonstrates legal and ethical procedures as they apply to the use of information technology. The student is expected to:	
(A) demonstrate ethical use of online resources;	✓
(B) adhere to copyright rules and regulations;	
(C) differentiate between copyright and trademarks;	
(D) explain the concept of intellectual property;	
(E) examine the consequences of plagiarism; and	
(F) describe the function of a non-disclosure agreement.	
Source: The provisions of this §130.272 adopted to be effective August 23, 2010, 34 TexReg 5934.	