

Idaho PTE Business Education Course with Essential Learning Outcomes and Learning Indicators

Course Title	INTRODUCTION TO INFORMATION TECHNOLOGY		
SDPTE Course ID	BE 0270	IBED	IBED 10001

A course designed to provide students with an understanding of voice and data communication networks and components necessary for information systems' maintenance. Students will become familiar with hardware and software utilities used to install, upgrade and problem solve various types of operating systems' problems.

Term	One Year	Preq	
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Notes:

Business Law *BLaw_7: Demonstrate Knowledge of Computer Law*

BLaw_7.1 Explain how the advances in computer technology impact upon such areas as property law, contract law, criminal law, and international law.

- Learning Indicator: BLaw_7.1.1 Define the key terms and new issues involved in computer law including security, privacy, computer crime and viruses
- Learning Indicator: BLaw_7.1.2 Determine when a computer program can be protected by a patent or a copyright and explain the steps in applying for each
- Learning Indicator: BLaw_7.1.3 Identify the circumstances under which the copyright of a computer program has been violated
- Learning Indicator: BLaw_7.1.4 Determine when computer-related contracts are service contracts and when they are sale of goods contracts
- Learning Indicator: BLaw_7.1.5 Outline the various claims and defenses that are available in civil suits involving computer contracts
- Learning Indicator: BLaw_7.1.6 Explain how common law, constitutional law, statutory law, and administrative regulations can be used to prevent the use of computers to invade privacy
- Learning Indicator: BLaw_7.1.7 Outline the various types of federal and state statutes designed to combat computer crime
- Learning Indicator: BLaw_7.1.8 Discuss the impact of the law of different countries and the impact of international law on computer law

Information Systems *IS_1: Demonstrate Knowledge of the Foundations of Information Systems*

IS_1.2 Demonstrate a knowledge of computers and the ability to use them.

- Learning Indicator: IS_1.2.1 Describe how to cold boot (start up) and warm boot (restart/reset) a computer. Explain the difference. Which should be attempted first?
- Learning Indicator: IS_1.2.2 Identify (list) the basic components of your computer system and peripherals
- Learning Indicator: IS_1.2.3 Define, explain or demonstrate written knowledge of the following components: Ports Modem, RAM, CPU, Mouse, File Server, Network (LAN & WAN), Serial Ports, Parallel Ports, Operating Systems, Files, Folders, Subfolders, Hard Drive, Storage Disks, CD-ROM, Zip Drives, LCD Displays
- Learning Indicator: IS_1.2.4 List and describe the different types of printers available and their main differences

Information Systems *IS_3: Demonstrate Knowledge of Common Applications of Information Systems*

IS_3.1 Identify, select, evaluate, and use application software.

- Learning Indicator: IS_3.1.1 Identify the types of application software and explain their purpose or use
- Learning Indicator: IS_3.1.2 Select application software types appropriate for specific tasks

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- Learning Indicator: IS_3.1.3 Describe emerging application software
- Learning Indicator: IS_3.1.4 Use reference materials, such as on-line help, vendor bulletin boards, tutorials, and manuals available for application software
- Learning Indicator: IS_3.1.5 Identify, select, and apply the features of software products, such as galleries, templates, and macros
- Learning Indicator: IS_3.1.6 Evaluate application software products in terms of their features
- Learning Indicator: IS_3.1.7 Select application software products appropriate to various computer platforms
- Learning Indicator: IS_3.1.8 Import and export text, data, and images between software programs

IS_3.2 Install, upgrade, and customize application software.

- Learning Indicator: IS_3.2.1 Store and maintain application software
- Learning Indicator: IS_3.2.2 Install, upgrade, and customize application software

IS_3.3 Diagnose and solve problems occurring from an application software's installation and use.

- Learning Indicator: IS_3.3.1 Diagnose and solve application software problems

Information Systems IS_5: Demonstrate Knowledge of Communications Systems and Networking

IS_5.1 Use, select, and evaluate communications and networking systems software and hardware to include hubs, switches and routers.

- Learning Indicator: IS_5.1.1 Identify the types of communications hardware and explain their functions and use
- Learning Indicator: IS_5.1.2 Identify the types of communications software and explain their functions and use
- Learning Indicator: IS_5.1.3 Select communications hardware appropriate for specific tasks
- Learning Indicator: IS_5.1.4 Select communications software appropriate for specific tasks
- Learning Indicator: IS_5.1.5 Demonstrate knowledge of basic telecommunication concepts in relation to technology, applications, and system components
- Learning Indicator: IS_5.1.6 Perform computer activities in communications with modems
- Learning Indicator: IS_5.1.7 Identify and describe the different components of the telecommunications industry
- Learning Indicator: IS_5.1.8 Identify and explain various types of on-line services (e.g., Internet, Intranet, and Extranet)
- Learning Indicator: IS_5.1.9 Access, navigate, and use on-line services (e.g., Internet, Intranet, and Extranet)
- Learning Indicator: IS_5.1.10 Send and receive e-mail messages, voice messages, and faxes
- Learning Indicator: IS_5.1.11 Identify the basic components of any communications system
- Learning Indicator: IS_5.1.12 Transfer files between varying types of computers, both local and remote
- Learning Indicator: IS_5.1.13 Communicate between varying computer platforms

Information Systems IS_6: Demonstrate Knowledge of Adaptations for Students with Special Needs

IS_6.1 Select and apply information for special needs students.

- Learning Indicator: IS_6.1.1 Demonstrate knowledge of sources of information regarding adaptation of instruction for students with special needs
- Learning Indicator: IS_6.1.2 Demonstrate knowledge of basic adaptive devices for students with special needs including alternate display and input technologies

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Information Systems IS_7: Demonstrate Knowledge of Information Systems Ethical Issues

IS_7.1 Establish and use a personal code of ethics for information systems use and management.

Learning Indicator: IS_7.1.1	Identify and explain property, privacy, access, and accuracy issues pertaining to information systems
Learning Indicator: IS_7.1.2	Analyze various information systems to distinguish ethical issues and problems
Learning Indicator: IS_7.1.3	Develop a code of ethics for information systems
Learning Indicator: IS_7.1.4	Apply ethical considerations to the operation and management of information systems common to organizations
Learning Indicator: IS_7.1.5	Demonstrate knowledge of laws and statutes relative to use of technology including copyright, equal access, fair use, educational opportunity, and least restrictive learning environment
Learning Indicator: IS_7.1.6	Discuss ethical and human issues relative to the use of technology in schools

Information Systems IS_9: Demonstrate Knowledge of Computer Architecture

IS_9.1 Describe current and emerging computer architecture; configure, install, and upgrade hardware systems; and diagnose and repair hardware problems.

Learning Indicator: IS_9.1.1	Identify hardware components such as hubs, switches and routers
Learning Indicator: IS_9.1.2	Explain the purpose, operation, and care of hardware components
Learning Indicator: IS_9.1.3	Identify examples of emerging hardware technology
Learning Indicator: IS_9.1.4	Diagnose hardware problems
Learning Indicator: IS_9.1.5	Illustrate various configurations of hardware components
Learning Indicator: IS_9.1.6	Describe ergonomic principles in the configuration of computer workstations
Learning Indicator: IS_9.1.7	Remove, upgrade, and install computer hardware
Learning Indicator: IS_9.1.8	Repair computer hardware problems

Information Systems IS_10: Demonstrate Knowledge of Operating Systems, Environments, and Utilities

IS_10.1 Identify, select, evaluate, use, install, upgrade, customize, diagnose and solve problems with various types of operating systems, environments, and utilities.

Learning Indicator: IS_10.1.1	Describe various types of operating systems, environments, and utilities
Learning Indicator: IS_10.1.2	Describe emerging operating systems technology
Learning Indicator: IS_10.1.3	Perform "start-up" procedures on a computer system
Learning Indicator: IS_10.1.4	Use operating system commands
Learning Indicator: IS_10.1.5	Demonstrate a knowledge of operating systems/languages
Learning Indicator: IS_10.1.6	Prepare flow charts for business applications
Learning Indicator: IS_10.1.7	Import, export, and merge data stored in different formats
Learning Indicator: IS_10.1.8	Compare and contrast the functions and features of different operating systems, environments, and utilities
Learning Indicator: IS_10.1.9	Select operating systems, environments, and utilities appropriate to specific hardware and software
Learning Indicator: IS_10.1.10	Organize and maintain directories and files using various operating systems

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Learning Indicator: IS_10.1.12 Diagnose and repair installation and operational problems of operating systems, environments, and utilities

Learning Indicator: IS_10.1.11 Install operating systems, environments, and utilities

Information Systems IS_11: Demonstrate Knowledge of Information Systems Planning, Acquisition, Analysis and Design

IS_11.1 Plan the selection and acquisition of information systems; analyze and design information systems using appropriate development tools.

Learning Indicator: IS_11.1.1 Identify sources for information systems hardware and software

Learning Indicator: IS_11.1.2 Develop design specifications for reports, screens, and data stores

Learning Indicator: IS_11.1.3 Complete appropriate documentation for information systems

Learning Indicator: IS_11.1.4 Identify and describe various structured analysis and design tools

Learning Indicator: IS_11.1.5 Using structured systems analysis tools, analyze the current system

Learning Indicator: IS_11.1.6 Using structured systems analysis tools, define the system requirements

Learning Indicator: IS_11.1.7 Design information systems interfaces appropriate to end-user needs

Learning Indicator: IS_11.1.8 Develop a training plan

Information Systems IS_12: Demonstrate Knowledge of Programming

IS_12.1 Demonstrate knowledge of computer history.

Learning Indicator: IS_12.1.1 Give a brief history of computers

Learning Indicator: IS_12.1.2 Describe how hardware and software make up computer architecture

Learning Indicator: IS_12.1.3 Describe the binary representation of data and programs in computers

Learning Indicator: IS_12.1.4 Discuss the evolution of programming languages

Learning Indicator: IS_12.1.5 Describe the software development process

Learning Indicator: IS_12.1.6 Discuss the fundamental concepts of object-oriented programming

IS_12.2 Demonstrate ability to create a simple computer program.

Learning Indicator: IS_12.2.1 Describe the structure of a simple program

Learning Indicator: IS_12.2.2 Write a simple program - hello world

Learning Indicator: IS_12.2.3 Edit, compile, and run a program

Learning Indicator: IS_12.2.4 Format a program to give a pleasing, consistent appearance

Learning Indicator: IS_12.2.5 Locate compile-time errors

Learning Indicator: IS_12.2.6 Write a simple graphics program

Information Systems IS_13: Demonstrate Knowledge of Communications Systems and Networking

IS_13.1 Design and implement security plans and procedures for information systems.

Learning Indicator: IS_13.1.1 Identify risks to information systems facilities, data, communications systems, and applications

Learning Indicator: IS_13.1.2 Identify and select controls for information systems facilities, data, communications, and applications appropriate to specific risks

Learning Indicator: IS_13.1.3 Apply procedures used to restart and recover from situations such as system failure and viral infection

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Learning Indicator: IS_13.1.4	Identify federal and state legislation pertaining to computer crime, fraud, and abuse
Learning Indicator: IS_13.1.5	Design and implement a security plan for an information system
Learning Indicator: IS_13.1.6	Develop and implement data retention and destruction schedules
Learning Indicator: IS_13.1.7	Develop and implement disaster prevention and recovery procedures

Information Systems IS_14: Demonstrate Knowledge of Information Systems Careers

IS_14.1 Describe positions and career paths in information systems.

Learning Indicator: IS_14.1.1	Identify positions and career paths in the field of information systems
Learning Indicator: IS_14.1.2	Identify common tasks performed by information systems workers
Learning Indicator: IS_14.1.3	Describe education, experience, skills, and personal requirements for careers in information systems
Learning Indicator: IS_14.1.4	Recognize the impact of technological change on information systems positions and the resulting need for lifelong learning and retraining