CIS 124 : IT FUNDAMENTALS

Transcript title

IT Fundamentals

Credits

4

Grading mode

Standard letter grades

Total contact hours

50

Lecture hours

30

Other hours

20

Course Description

Explores the skills and knowledge required to identify and explain the basics of computing, IT infrastructure, software development, and database use. Identify and explain computer components, install software, establish network connectivity, and prevent security risks.

Course learning outcomes

1. Illustrate the basics of computing, including the value of data and information.
2. Document steps for troubleshooting common problems faced with both hardware and software.
3. Demonstrate how to set up and install common peripheral devices to a laptop/PC or secure a basic wireless network.
4. Manage applications software, update various components of an operating system, and explain the purpose of methods of application architecture.
5. Summarize programming language categories, interpret logic, and identify the purpose of programming concepts.
6. Explain database concepts, structures, and purpose, as well as common interface methods.
7. Discuss confidentiality, integrity, and availability concerns of secure devices and best practice methods.

Content outline

- core hardware components - peripherals and connectors - computing devices and the Internet of Things - operating systems - software applications - software development - database fundamentals - networking concepts and technologies - security concepts and threats - security best practices - business continuity and computer support

Required materials

1. Students will need frequent access to a computer under which they have administrative rights to configure the computer fully. 2. Students will need frequent and reliable access to the Internet in order to conduct research, participate with the class online using cloud technologies, and access the Pioneer Data Center via a secure VPN connection. 3. Students will need access to the course training materials, textbooks, software, online resources as determined in the course syllabus.