

Course 102:
IT for Business Professionals
(2 days)

Course Description...

The world of Information Technology is sometimes a black hole to those in business who have to work with the computer software, hardware and networks that populate business today. This course will demystify the world of IT and provide enough understanding to the businessperson that they will be able to converse with IT representatives to explain their needs, wants and expectations.

Learning Objectives...

- Understand the basic hardware, software and networks that make up computer technology
- Be conversant with the lexicon of Information Technologies
- Appreciate the system development life cycle process that creates the software used by business
- Gain a basic understanding of the company's networks and the Internet, and how information travels around the world
- Realize the impact of security and information systems on the day-to-day operations of the business

Who should attend...

Anyone interested in a deeper understanding of computers or information technology.

Prerequisites...

There are no prerequisites. This course is designed for the person with no computer experience whatsoever.

See next page for a detailed course outline....



Course Outline...

Unit 1: IT Overview

Introduction

- Definitions
 - Data
 - Information
 - Information Technology (IT)
- Why is IT doing these things?

Storing Information

- Where information is stored
 - Computer systems
 - Networks
 - The Internet
- How information is stored
 - Storage media – local and networked
 - Databases – flat files
 - The Database Management System

Information Access

- Information access architectures
 - Monolithic approach
 - Remote processing
 - Distribution and client/server
 - Web-based approach
 - The Internet
- Means of information access

Use of Information

- Tracking
- Decision support systems
- Transactional systems
- Analytical systems
- E-commerce systems

Sharing Information

- Networks
- Security: Who wants our information

Building an Information System

- System Development Life Cycle
- Once it's finished, then what
- Managing the information systems

The Future of Information

- New forms of information
- New forms of transmitting and sharing information

Unit 2: Computer Ins and Outs

The Hard Stuff

- Processing
- Listen to your mother
- The brain - CPU
- Ins and outs
- Memory
 - Short-term memory
 - Long-term memory
 - Disk controllers
 - Wires, plugs and standards



- The soft stuff
 - Operating Systems
 - Development of operating systems
 - Basic concepts
 - Windows
 - UNIX, Linux and Solaris
 - Utilities
 - Finding data on the PC
- Removing information
 - Recycling basket
 - Not-so permanent deletion
 - Internet files

Add-ons and Peripherals

- Parallel and serial connections

How It All Works

- Drivers and translators
- Interoperability

Unit 3: Making Connections

A Network and Its Components

- Cabling
- Client
- Server types

Networking Terminology

- Traffic patterns
- Getting the message through

What Are Protocols?

- What protocols are all about
- Protocol layering
- How it works

The TCP/IP-Based Protocol Suite

- Development of TCP/IP
- TCP/IP layering
- Why TCP/IP?

Overview of the Internet

- What Is the Internet?
- Internet Development
- Organizational Structure
- Domains and Networks
- But how do we know where to send it? (Part 1)
- IP Addressing

Unit 4: Connection Options – PC, Laptop or PDA to the Network

Circuit Selection

- Analog communications
- Digital telephone channels
- Reason for going digital

Modems

- Modems
- Cable MODEMS

Other Connection Options

- How fast can I download something?
- How can I download something fast?



Unit 5: Networking Locally

Local Area Networks (LANs)

LAN Hardware

- Network Interface Card
- Repeaters
- Hubs

Ethernet

- Ethernet timeline and standards
- How it works
- Alternative to Ethernet: token ring

LAN Addressing

Unit 6: Networking around the Company

Chapter Objectives

Bridging Local Networks

Routing around the Network

- General concepts and issues
- Component overview
- How routers work

Switching between Networks

- LAN switches
- Virtual LANs

Unit 7: Networking around the World

General Characteristics of Wide-Area Networks (WANs)

Network Layer Protocol Characteristics

- Network to network
- Review of network objectives and services

Share and Share Alike

- Overview of leased lines
- How it works

Typical Wide-Area Network Alternatives

- Packet switching technologies
- How it works

Unit 8: Basic Uses of the Network

E-Mail and E-Mail Servers

- How it works
- SPAM
- Instant messaging

File and Data Transfers

- Transferring whole files using FTP
- Data and file servers
- Network File Service (NFS)

Information Storage and Retrieval

- RAID
- File systems
- Database management systems
 - Retrieval
 - Structured Query Language (SQL)



Unit 9: Fundamentals of the World Wide Web

Introduction

- Defining the World Wide Web (WWW)
- History of the World Wide Web

Major Technology Components

- Browser
- Web Server
- HTTP

But How Do We Know Where To Send It? (Part 3)

- Uniform resource locator (URL)
- Internet domain names
- Top-level domains
- Extending internet domain names

Web Page Essentials

- HTML and hypermedia
 - Development of HTML
 - Basic principles of a tagging language

Finding Information on the Web

- Search engines
 - Types of engines
 - Ranking algorithms
 - Effective searching

Unit 10: Introduction to E-Commerce

Overview of Web Commerce

- What is e-commerce?
- E-commerce growth

E-Commerce Business Models

- Motivations for embracing e-commerce
- E-commerce business models

Restrictions and Constrictions

Intellectual Property and Digital Rights

The Future of E-Commerce

Unit 11: Networking and Web Security and Privacy

Chapter Objectives

Security Strategies

- Source of attacks
- The security model

Concerns and Countermeasures

- Authentication
 - Passwords
 - Biometrics
 - Smart cards
- Privacy
 - Encryption
 - Public and private keys
- Certificates and signatures
- Denial of Service
 - Clones and drones
- E-commerce security
 - Just how secure is it?

Firewalls and Other Defenses



Unit 12: Making IT Happen

Why Does IT Take So Long?

What Needs To Be Done?

- Business process re-engineering
- Applying IT to business
- Basic principles behind IT

The Development Process

- Problem identification
- Requirements
- Logical design
- Physical design
- Coding
- Testing

Deployment

- The user's involvement in the process

Maintaining the Systems

- Types of maintenance
- Reporting the problems
 - Help desks
 - Defect tracking
 - Change requests

Finding the Problems

- Watching you watch me
- Systems management
- Network management

Unit 13: What's Ahead?

Chapter Objectives

Streaming Audio and Video

- Teleconferencing
- Tele-medicine
- Entertainment

Share and Share Alike

- Peer-to-peer again
- File sharing
- Grid computing

Wireless

- Bluetooth and togetherness
- Everything is at hand

Ubiquitous Computing

- Access anywhere and everywhere
- Really smart appliances
- The best-dressed computer

Please contact your ROI representative to discuss course tailoring!!!