# CPIT-220 Syllabus

## Catalog Description

**CPIT-220**   Introduction to IT
**Credit:**       3 ( Theory: 3, Lab: 0, Practical: 1)
**Prerequisite:**   CPIT-201
**Classification:**  Department Required

The objective of this course is to provide an overview and understanding of the conceptual base of Information Technology, introducing the newly specialized IT students with the knowledge and skills related to understanding existing and emerging information technologies. Students will find this a helpful Bridge course to upper level courses in Information Technology. This course is supported with a laboratory that aims to equip students with practical knowledge and presentation skills. The purpose of this course is threefold: (1) to provide comprehensive and engaging overview of cutting-edge information technologies, (2) to identify and discuss fundamental principles underlying these technologies, and (3) to relate these technologies with practical life. Topics include an introduction to information technology, digital and analog signals, inside the system unit, system software, databases and information systems, system analysis and design, information systems and databases, networking, privacy, crime and security.

### Class Schedule

Lab/Tutorial 90 minutes 1 times/week

Meet 50 minutes 3 times/week or 80 minutes 2 times/week

## Textbook

Catherine LaBerta, , "Computers are Your Future", Prentice Hall; 12 edition (2011-01-17)

**ISBN-13** 9780132544948      **ISBN-10** 0132544946

## Last Articulated

December 18, 2017

## Relationship to Student Outcomes

| a | b | c | d | e | f | g | h | i | j | k | l | m | n |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| x |   |   |   |   |   | x |   |   |   |   |   | x |   |

## Course Learning Outcomes (CLO)

By completion of the course the students should be able to

1. Examine the examples of IT Technologies. (a)
2. Analyze the advantages of representing information in digital format for processing, communication and storage. (m)
3. Differentiate between (a) Web browser and Web server (b) Website, webpage, search engine, Portal and Subject guide(c) Boolean search operators and other search operators (d) Internet and the Web (e) B2B, B2C and C2C E-commerce. (a)
4. Classify the components of the two major components (Operating systems and system utilities) of the system software. (a)
5. Discover the functions of the different components on the computer's main board. (a)
6. Discribe the three steps (Sampling, quantization and encoding) of the digitization of an audio signal. (a)
7. Discover the physical and mathematical basis of digitizing image and video. (m)
8. **Explore the application of different kinds of databases based on using SQL commands and their impact on IT industry. (g)**
9. **Classify the activities in different phases of the Software development life cycle and its impact on IT industry. (g)**
10. **Analyze the components of a transmission medium, the sources of transmission errors, its detection and correction in digital systems. (a)**
11. **Assess the advantages and disadvantages of the different kinds of networks based on the shape, area and control. (a)**
12. Contrast circuit switching and packet switching networks and explain their respective strength and weaknesses. (m)
13. **Evaluate the various kinds of wired and wireless networks and their application in a particular scenario. (m)**
14. Distinguish between peer-to-peer (P2P) and client/server,LANs,WANs, HANs and their components. (m)

## Coordinator(s)

Dr. Sabeen Tahir, Associate Professor

# CPIT-220 Syllabus

## Grade Distribution

| Week | Assessment | Grade % |
|------|-----------|---------|
| 1 | Student Work Portfolio | 10 |
| 2 | Graded Lab Work 1 | 1 |
| 3 | Graded Lab Work 2 | 1 |
| 4 | Graded Lab Work 3 | 1 |
| 5 | Graded Lab Work 4 | 1 |
| 6 | Graded Lab Work 5 | 1 |
| 7 | Graded Lab Work 6 | 1 |
| 8 | Exam 1 | 15 |
| 8 | Graded Lab Work 7 | 1 |
| 9 | Graded Lab Work 8 | 1 |
| 10 | Graded Lab Work 9 | 1 |
| 11 | Graded Lab Work 10 | 1 |
| 12 | Exam 2 | 15 |
| 14 | Group Project | 10 |
| 16 | Comprehensive Final Exam | 40 |

## Topics Coverage Durations

| Topics | Weeks |
|--------|-------|
| Introduction to IT | 1 |
| Understanding the digital domain | 1 |
| Internet and the WWW | 1 |
| System software | 1 |
| Inside the System Unit | 1 |
| Digital Audio Technology | 1 |
| Digital image and Video | 1 |
| Databases and Information Systems | 2 |
| System analysis and Design | 2 |
| Foundamentals of Communication | 2 |
| Networks | 1 |
| Wired and Wireless Networks | 1 |