

### **Faculty of Computing and Information Technology**

Department of Information Technology

Spring 2018



# **CPIT-201 Syllabus**

## **Catalog Description**

**CPIT-201** Introduction to Computing **Credit:** 3 ( Theory: 3, Lab: 0, Practical: 1)

Prerequisite: None

Classification: College Required

The objective of this course is present computer science subject areas and applications in ways that serve to motivate the study of computer science and to put into context the various subjects that a student encounter later in their studies. Topics include an introduction to the discipline of computing, computer systems, number systems, data representation, basic computer organization, operating system functionality, basics of networking, the Internet, an overview of database systems, models, software engineering methodologies, and programming languages.

#### **Class Schedule**

Meet 50 minutes 3 times/week or 80 minutes 2 times/week Lab/Tutorial 90 minutes 1 times/week

#### **Textbook**

Gilberg, Richard F., Forouzan, Behrouz A., "Foundations of Computer Science, Second Edition", Course Technology; 2 edition

**ISBN-13** 9781418836092 **ISBN-10** 1418836095

### **Grade Distribution**

| Week | Assessment               | Grade % |
|------|--------------------------|---------|
| 3    | Quiz 1                   | 2.5     |
| 6    | Quiz 2                   | 2.5     |
| 7    | Exam 1                   | 25      |
| 9    | Quiz 3                   | 2.5     |
| 11   | Quiz 4                   | 2.5     |
| 12   | Exam 2                   | 25      |
| 16   | Comprehensive Final Exam | 40      |

#### **Last Articulated**

December 18, 2017

#### **Relationship to Student Outcomes**

| a | b | c | d | e | f | g | h | i | j | k | 1 | m | n |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X | X |   |   | X |   |   |   | X | X |   |   |   |   |

#### **Course Learning Outcomes (CLO)**

By completion of the course the students should be able to

- 1. Describe the historical development of computer science and technologies and their applications (b)
- 2. Define the concept of the number systems (a)
- 3. Compute and convert between different numbering Systems (a)
- 4. Discover how the computer represent, manipulate different data types (i)
- 5. Describe the basic structures and functional components of computer hardware and how the computer communicates with peripherals (b)
- 6. Describe the basic operating systems functions and how the functions are done (i)
- 7. Compare different operating systems (b)
- 8. Discover the computer network criteria, physical structure and network categories (b)
- Describe constructions and operation of computer networks, applications of networks, Internet and security (i)
- 10. Solve problems using the concept of algorithm and the different approaches of writing algorithm (j)
- 11. Identify the basics of software engineering discipline and software life cycle (j)
- 12. Distinguish different software engineering methodologies (b)
- 13. Develop theoretical understanding of the computer basics and day to day life issues such as security, privacy, liability and social awareness (e)

#### **Coordinator(s)**

Dr. Rayed Alghamdi, Associate Professor



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# **Topics Coverage Durations**

| Topics                | Weeks |
|-----------------------|-------|
| Introduction          | 1     |
| Number Systems        | 2     |
| Data Storage          | 2     |
| Operations on Data    | 1     |
| Computer Organization | 2     |
| Computer Networks     | 2     |
| Operating Systems     | 2     |
| Algorithms            | 2     |
| Software Engineering  | 1     |