King Khalid University **College of Computer Science** **Department of Computer Science**		**Course Syllabus: Introduction to computer(Engineering)** **Course Code:**

Course Title	Introduction to Computer (Engineering)
Course Code	104HAL-2
Lecture Times	
Lecture Room	Online Course, E-Learning Lab
Instructors Name	
Office Hours	As per time table

Course Short Description	This course is designed to make student aware about the fundamental concepts of Computer , e-Learning and Information Technology. This course provides an overview of selected major areas of current computing technology, organization and use. □ Topics surveyed include the history of computing, data representation and storage, hardware and software organization, communications technologies, and fundamental problem solving and programming skills.
Course Objectives	**At the end of the course, the students should be able to:** Upon successful completion of this course, you should be able to: Understand the definition of computer science. □ Acquainted with Network topology, Network peripherals, hardware and software. □ Enumerate the characteristics of the Von Neumann architecture; describe non-Von Neumann parallel processing systems. □ Be able to understand how an electronic machine can represent data. □ Be able to write and evaluate algorithms, able to define abstraction and top-down design. □ Learn about Matlab Programming Language. □ Learn about Software Development Life Cycle and High-Level Language.
Pre-Requisite/s	None
Course contents	

	Introduction to computer systems components □ Introduction to Information Technology □ Operating Systems fundamentals. □ The Algorithmic Foundations of Computer Science. □ Introduction to algorithms and programming language: o Arithmetic expressions, simple data types, input and output statements, control statements, repetition statements and its practical applications in engineering. □ Introduction to Matlab. □ E/Learning and Distance Learning	
Text Book/s	□ Paul Tymann and Carl Reynolds, Schaum's Outline of Principles of Computer Science (Schaum's Outline Series) 1st Edition, 2015. ISBN-13: 978-0071460514, ISBN-10: 0071460519	
Reference Book/s	□ Invitation to Computer Science, G. Michael Schneider & Judith L. Gersting 6th Edition, ISBN-13: 9781133190820 Computing Essential Latest edition by Timothy J. O'Leary, and Linda I. O'Leary, McGraw Hill International Edition	
Course Policy (Include details, if it is offered as a blended e-learning course)	This course will be offered 100% e-learning course as well few classes physical interaction with students in the class room	
Assignments	After completing each chapter assignment discussion and quiz will be assigned to the students.	
Grading	As per rules of the University and the decision of the College Council	
Student Evaluation	**Assignments & Quizzes and Discussion board**	10
	Midterm Examinations	20
	Laboratory (Practical)	20
	Final Examination	50

SYLLABUS AND SCHEDULE FOR THEORY COURSE

Week	Topic	Text Reference	Chapter No. & Page No.
1,2	How to handle online course_over blackboard LMS		
3,4	**Unit-1 Introduction to E-Learning:** Overview and definition of E-learning , different developments in time explain the different delivery types of E-learning, to list benefits and limitation of E-learning, Different learning models and overview of Learning Management System and its features, overview of communication technologies used in E-learning and its advantages.		
5	**Unit-2 Information Technology, The Internet & You:** Overview of an Information system and its different parts and overview of Information technology and System software and Application software and utilities, Overview of hardware and types of computers and introduction to system unit and microprocessor, RAM and secondary storage devices, Communication and Data, types of files and connectivity and Internet.		
6	**Unit-3 Introduction to computer science :** Definition of computer, definition of computer science , definition of algorithm, components of computer ,von-Neumann architecture , description of non-Von Neumann parallel processing systems.		
7	**Unit-4 The Algorithmic Foundations of Computer Science:** The benefits of pseudo code over natural language or a programming language, Represent algorithms using pseudo code, Identify algorithm statements as sequential, conditional, or iterative, Definition of abstraction and top-down design, and their use in breaking down complex problems		
8	**Unit-5 Introduction to algorithms and programming language:** Introduction to computer languages, Machine language, assembly language, High level languages, Learn about Software Development Life Cycle and High-Level Language.		
9,10	**Unit-6 : An Introduction to System Software and Virtual Machines:** Definition of operating system, types of system software, functions of operating system,		
11,12	**Unit-7 : An Introduction to Computer Networking:** Definition of networking, Network topology, Network peripherals, hardware and software		

13,14	**Unit-8 : An Introduction to Matlab :** Arithmetic Arithmetic expressions, simple data types, input and output statements, control statements, repetition statements and its practical applications in engineering.		

SYLLABUS AND SCHEDULE FOR THE LABORATORY WORK	
Week	**Topics/Labs**
1,2	Introduction to computer (Input/output devices, Applications of hardware and software, Operating systems including GUI and Non GUI like Version of Windows, Features of Windows like folder and file creation, control panel, setting desktop background and screen saver, properties of windows).
3,4,5	Microsoft Word (File creation, modification, storing (Save and Save as), File formatting (Cut, Copy, Paste), Text formatting (Font style, size, bullets, Bold, Underline, Italic), Table creation and deletion, Setting header and footer, page numbers, Paragraph formatting, Image insertion, Print Preview).
6,7,8	Microsoft Excel (Introducing with workbook and worksheet, cells, Rows, columns, Performing mathematical calculations, Inserting chart and tables using data, Performing mathematical formula and function like finding Max, Min, Average, Count).
9,10	Microsoft PowerPoint (Creating a presentation, Creating and designing the new slides, setting animation, view of presentation, Handout, Print preview).
11,12	Matlab: Introduction to Matlab Arithmetic expressions, simple data types, input and output statements,
13,14	Matlab: control statements, repetition statements and its practical applications in engineering.

Signature

Course Coordinator

Signature

Coordinator for CS college