

COMPUTER ARCHITECTURE Programme Course Description

CODE	NAME OF THE COURSE UNIT	SEMESTER	IN-CLASS HOURS (T+P)	CREDIT	ECTS CREDIT
CTE206	Computer Architecture	2	4	3	6

GENERAL INFORMATION	
Language of Instruction:	English
Level of the Course Unit:	Bachelor's Degree
Type of the Course:	Compulsory
Mode of Delivery of the Course Unit	Face to Face
Coordinator of the Course Unit	Dr. Ahmad F. Al-Allaf
Instructor(s) of the Course Unit	Dr. Ahmad F. Al-Allaf

OBJECTIVES AND CONTENTS	
Objectives of the Course Unit:	This course introduces the principles of computer organization and the basic architecture concepts. The course emphasizes memory technology, memory hierarchy, memory organization, memory interfacing and I/O systems. Also study the hardware and software interrupts and their applications.
Contents of the Course Unit:	1 – Basic computer organization 2 – Internal and external memories 3 – ROMs and RAMs 4 – Memory interface to the 8088/8086 microprocessor 5 – Memory interfacing to 32-bit microprocessor 5 – I/O system design and interfacing 6 – Software and hardware interrupts

Week	KEY LEARNING OUTCOMES OF THE COURSE UNIT On successful completion of this course unit, students/learners will or will be able to dealing with:
1	<ul style="list-style-type: none"> • Basic computer architecture: Computer organization, Primary and secondary memories, Memory hierarchy, types of ROMs and RAMs
2	<ul style="list-style-type: none"> • Primary memory architecture: Internal structure and operation of ROMs, and RAMs
3	<ul style="list-style-type: none"> • Memory address decoder: Simple address decode, 2-4 and 3-8 address decoders. Use programmable logic devices (PLDs) to decode memory addresses.
4	<ul style="list-style-type: none"> • Memory interfacing: Interfacing ROM and SRAM to the 8088 microprocessor, Expanding memory in size and words.
5	<ul style="list-style-type: none"> • Memory interfacing: Interfacing ROM and SRAM to the 8086 microprocessor.
6	<ul style="list-style-type: none"> • Memory interfacing: Interfacing ROM and SRAM to the 32-bit microprocessor.
7	<ul style="list-style-type: none"> • Memory interfacing: Memory interfacing Design examples
8	<ul style="list-style-type: none"> • I/O system: The I/O Instructions, Isolated and Memory-Mapped I/O, Basic Input and Output Interfaces
9	<ul style="list-style-type: none"> • I/O system interfacing: Interfacing simple devices (LEDs and switches) to the 8088/8086 microprocessor
10	<ul style="list-style-type: none"> • I/O system interfacing: Interfacing ADC and DAC to the 8088/8086 microprocessor,
11	<ul style="list-style-type: none"> • I/O system interfacing Interfacing Keyboard and 7-segment displays to the 8088/8086 microprocessor
12	<ul style="list-style-type: none"> • Interrupts: Basic Interrupt Processing, Interrupt Instructions, Interrupt Vector, Hardware Interrupts.
13	<ul style="list-style-type: none"> • Interrupts: Expanding the Interrupt Structure, Using the 74ALS244 to Expand Interrupts, Daisy-Chained Interrupt.
14	<ul style="list-style-type: none"> • Interrupts: Interrupt Examples, Real-Time Clock, Interrupt-Processed Keyboard
15	<ul style="list-style-type: none"> • Final Exam.

No.	PRACTICAL PART
1	Lab 1: Introduction to Proteus simulator for digital systems
2	Lab 2: Introduction to Memory type and organization
3	Lab 3: Address decoders
4	Lab 4: SRAM interfacing
5	Lab 5: ROM interfacing
6	Lab 6: Expanding ROM and RAM
7	Lab 7: Interfacing LEDs and switches to the microprocessor
8	Lab 8: Interfacing Keyboard to the microprocessor
9	Lab 9: Interfacing 7-segment display to the microprocessor
10	Lab 10: Interfacing ADC to the microprocessor
11	Lab 11: Interfacing DAC to the microprocessor
12	Lab 12: Expanding the Interrupt Structure using the 74ALS244
13	Lab 13: Interrupt design example
14	Lab 14: Review

WORKLOAD & ECTS CREDITS OF THE COURSE UNIT :
CTE206 COMPUTER ARCHITECTURE
WORKLOAD FOR LEARNING & TEACHING ACTIVITIES

TYPE OF THE LEARNING ACTIVATES	LEARNING ACTIVITIES (# OF WEEK)	DURATION (HOURS, H)	WORKLOAD (H)
Lecture & In-Class Activities	15	2	30
Preliminary & Further Study	2	2	4
Land Surveying	NA	NA	NA
Group Work	4	1	4
Laboratory	14	2	28
Reading	NA	NA	NA
Assignment (Homework)	8	1	8
Project Work	1	2	2
Seminar	3	1	3
Internship	NA	NA	NA
Technical Visit	NA	NA	NA
Web Based Learning	5	2	10
Implementation/Application/Practice	NA	NA	NA
Practice at a workplace	NA	NA	NA
Occupational Activity	NA	NA	NA
Social Activity	NA	NA	NA
Thesis Work	NA	NA	NA
Field Study	NA	NA	NA
Report Writing	5	2	10
Final Exam	1	3	3
Preparation for the Final Exam	1	20	20
Mid-Term Exam	1	2	2
Preparation for the Mid-Term Exam	1	12	12
Short Exam (Quizzes)	4	0.5	2
Preparation for the Short Exam	8	1.5	12
TOTAL WORKLOAD OF THE COURSE UNIT	73	54	150
Workload (h) / 25			150÷25
ECTS Credits allocated for the Course Unit			6

ELECTRONIC CIRCUITS Programme Course Description

CODE	NAME OF THE COURSE UNIT	SEMESTER	IN-CLASS HOURS (T+P)	CREDIT	ECTS CREDIT
CTE207	Electronic Circuits	2	4	3	6

GENERAL INFORMATION

Language of Instruction:	English
Level of the Course Unit:	Bachelor's Degree
Type of the Course:	Compulsory
Mode of Delivery of the Course Unit	Face to Face
Coordinator of the Course Unit	Dr. Thabat F. Thabet
Instructor(s) of the Course Unit	Dr. Thabat F. Thabet

OBJECTIVES AND CONTENTS

Objectives of the Course Unit:	<ul style="list-style-type: none"> • To learn the applications of BJT . • Study the types of BJT amplifiers (Common Emitter, Common Collector, and Common Base). • Study the Frequency response of amplifiers. • Differential and Operational Amplifiers • Study the family of Field Effect Transistors (FET).
Contents of the Course Unit:	1 – BJT Applications. 2 – BJT Amplifiers 3 – Frequency Response 4 – Differential and Operational Amplifiers 5 – Field Effect Transistors (FET).

Week	KEY LEARNING OUTCOMES OF THE COURSE UNIT On successful completion of this course unit, students/learners will or will be able to dealing with:
1	1- BJT Applications. BJT as a Switch (cutoff and saturation).
2	1- BJT Applications. Linear operation and DC load line.
3	2- BJT Amplifiers. Common Emitter CE.
4	2- BJT Amplifiers. Common Collector CC.
5	2- BJT Amplifiers. Common Base CB.
6	3- Frequency Response. The Decibel.
7	3- Frequency Response. Low Frequency Amplifier Response (Effect of the external capacitors)
8	3- Frequency Response. High Frequency Amplifier Response (Effect of the internal capacitors)
9	3- Frequency Response. Total Frequency Response (Bode Plot)
10	4- Differential and Operational Amplifiers Differential and Operational Amplifiers.
11	4- Differential and Operational Amplifiers Negative Feed-back (Inverting and Non-inverting Amplifiers).
12	4- Differential and Operational Amplifiers Applications of Operational Amplifiers.
13	5- Field Effect Transistors (FET). Junction Field Effect Transistors (JFET).
14	5- Field Effect Transistors (FET). Metal Oxide Semiconductor Field Effect Transistors (MOSFET).
15	Final Exam.

No.	PRACTICAL PART
1	Lab 1: Review of Transistor Biasing (operating point)
2	Lab 2: BJT as a Switch (cutoff and saturation).
3	Lab 3: Linear operation and DC load line.
4	Lab 4: Common Emitter Amplifiers
5	Lab 5: Common Collector Amplifiers
6	Lab 6: Common Base Amplifiers
7	Lab 7: Frequency response of OPAMP
8	Lab 8: Inverting and Non-inverting OPAMPs
9	Lab 9: Analogue Comparator
10	Lab 10: The Integrator Circuit
11	Lab 11: The Differentiator Circuit
12	Lab 12: FET
13	Lab 13: FET Amplifier
14	Lab 14: Review

WORKLOAD & ECTS CREDITS OF THE COURSE UNIT :		CTE207	ELECTRONIC CIRCUITS
WORKLOAD FOR LEARNING & TEACHING ACTIVITIES			
TYPE OF THE LEARNING ACTIVATES	LEARNING ACTIVITIES (# OF WEEK)	DURATION (HOURS, H)	WORKLOAD (H)
Lecture & In-Class Activities	14	2	28
Preliminary & Further Study	3	2	6
Land Surveying	NA	NA	NA
Group Work	4	1	4
Laboratory	14	2	28
Reading	5	1	5
Assignment (Homework)	8	1	8
Project Work	1	3	3
Seminar	3	1	3
Internship	NA	NA	NA
Technical Visit	1	5	5
Web Based Learning	1	5	5
Implementation/Application/Practice	NA	NA	NA
Practice at a workplace	NA	NA	NA
Occupational Activity	NA	NA	NA
Social Activity	NA	NA	NA
Thesis Work	NA	NA	NA
Field Study	NA	NA	NA
Report Writing	5	2	10
Final Exam	1	3	3
Preparation for the Final Exam	1	20	20
Mid-Term Exam	1	2	2
Preparation for the Mid-Term Exam	1	12	12
Short Exam (Quizzes)	4	0.5	2
Preparation for the Short Exam	4	1.5	6
TOTAL WORKLOAD OF THE COURSE UNIT	71	64	150
Workload (h) / 25			150÷25
ECTS Credits allocated for the Course Unit			6

COMMUNICATION FUNDAMENTALS Programme Course Description

CODE	NAME OF THE COURSE UNIT	SEMESTER	IN-CLASS HOURS (T+P)	CREDIT	ECTS CREDIT
CTE208	Communication Fundamentals	1	4	3	7
GENERAL INFORMATION					
Language of Instruction:			English		
Level of the Course Unit:			Bachelor's Degree		
Type of the Course:			Compulsory		
Mode of Delivery of the Course Unit			Face to Face		
Coordinator of the Course Unit			Dr. Emad A. Mohammed		
Instructor(s) of the Course Unit			Dr. Emad A. Mohammed		
OBJECTIVES AND CONTENTS					
Objectives of the Course Unit:		<ul style="list-style-type: none"> To learn the fundamentals of communication system and the main structure of the system including transmitters, receivers and channels. To learn the basic techniques used in signal representation, modulation and demodulation 			
Contents of the Course Unit:		1 – Introduction to signals and systems 2 – Signal representation in frequency domain 3 – Modulation techniques 4 – Transmission channels			
KEY LEARNING OUTCOMES OF THE COURSE UNIT					
Week	On successful completion of this course unit, students/learners will or will be able to dealing with:				
1	Signals and system definition, periodic signals, non-periodic signal, deterministic and non-deterministic signals				
2	Linear systems and nonlinear systems, filters				
3	Fourier series, signal harmonics				
4	Fourier transform, Frequency domain, exponential and trigonometric Fourier transform				
5	Properties of Fourier Transform, application of Fourier transform				
6	Baseband signal transmission, line coding, polar code, bipolar code, Manchester code				
7	Analogue modulation Techniques, AM, FM, PM				
8	Pulse modulation techniques, PAM, PPM, PWM				
9	Digital modulation Techniques ASK, PSK, FSK				
10	Multilevel modulation, QAM				
11	Wireless channels, Shannon equation, channel capacity				
12	Transmission lines and their equivalent circuits, TL characteristics				
13	Incident wave, reflected wave				
14	Smith Chart, matching techniques				
15	Final Exam.				

No.	PRACTICAL PART
1	Lab 1: Signals properties
2	Lab 2: Linear systems and nonlinear systems, filters
3	Lab 3: Harmonics determination
4	Lab 4: Fourier transform, Spectrum analysis
5	Lab 5: Fourier transform properties
6	Lab 6: Types of Baseband signals
7	Lab 7: Amplitude and phase modulation
8	Lab 8: Frequency modulation
9	Lab 9: PPM, PAM, PWM
10	Lab 10: ASK
11	Lab 11: FSK
12	Lab 12: PSK
13	Lab 13: QAM
14	Lab 14: Review

WORKLOAD & ECTS CREDITS OF THE COURSE UNIT :		CTE208	COMMUNICATION FUNDAMENTALS
WORKLOAD FOR LEARNING & TEACHING ACTIVITIES			
TYPE OF THE LEARNING ACTIVATES	LEARNING ACTIVITIES (# OF WEEK)	DURATION (HOURS, H)	WORKLOAD (H)
Lecture & In-Class Activities	15	2	30
Preliminary & Further Study	4	2	8
Land Surveying	NA	NA	NA
Group Work	5	1	5
Laboratory	14	2	28
Reading	2	2	4
Assignment (Homework)	8	1	8
Project Work	1	3	3
Seminar	3	1	3
Internship	NA	NA	NA
Technical Visit	1	5	5
Web Based Learning	5	2	10
Implementation/Application/Practice	NA	NA	NA
Practice at a workplace	NA	NA	NA
Occupational Activity	NA	NA	NA
Social Activity	NA	NA	NA
Thesis Work	NA	NA	NA
Field Study	NA	NA	NA
Report Writing	8	2	16
Final Exam	1	3	3
Preparation for the Final Exam	1	20	20
Mid-Term Exam	1	2	2
Preparation for the Mid-Term Exam	1	12	12
Short Exam (Quizzes)	8	0.5	4
Preparation for the Short Exam	8	1.5	14
TOTAL WORKLOAD OF THE COURSE UNIT	86	62	175
Workload (h) / 25			175÷25
ECTS Credits allocated for the Course Unit			7

COMPUTER APPLICATIONS Programme Course Description

CODE	NAME OF THE COURSE UNIT	SEMESTER	IN-CLASS HOURS (T+P)	CREDIT	ECTS CREDIT
CTE209	Computer Applications	2	3	2	4

GENERAL INFORMATION	
Language of Instruction:	English
Level of the Course Unit:	Bachelor's Degree
Type of the Course:	Compulsory
Mode of Delivery of the Course Unit	Face to Face
Coordinator of the Course Unit	Shaima Miqdad Mohamed Najeeb
Instructor(s) of the Course Unit	Shaima Miqdad Mohamed Najeeb

OBJECTIVES AND CONTENTS	
Objectives of the Course Unit:	The main objective of this course is to provide a foundation in programming for engineering problem solving using the MATLAB software package. Students will develop the skills analyze and break down a program and solve it . Learn the capabilities and applications supported by the MATLAB program, implement them, and use them to solve various problems.
Contents of the Course Unit:	<ol style="list-style-type: none"> 1- General introduction to matlab programming 2- An introduction to the MATLAB programming environment 3- Programming in MATLAB 4- Function in matlab. 5- Plotting in matlab 6- Matlab simulink 7- MATLAB GUI.

Week	KEY LEARNING OUTCOMES OF THE COURSE UNIT On successful completion of this course unit, students/learners will or will be able to dealing with:
1	General introduction to matlab programming: Basic of programming in general and programming MATLAB® in particular Environment and Settings, Preferences and settings, platform differences, adding hardware and optional features
2	Programming in MATLAB: Introduction to matrices and vectors , creating a Matlab Matrix, referencing the Elements of a Matrix, deleting a Row or a Column in a Matrix.
3	Programming in MATLAB: Arithmetic ,logical and bitwise operations.
4	Programming in MATLAB: Writing MATLAB scripts and functions, a custom-made Matlab functions.
5	Programming in MATLAB : Loops and control flow (for-loops, if-statements)
6	Function in MATLAB : Declare function name, inputs, and outputs(syntax) with examples.
7	Plotting in matlab: Overview of MATLAB Plotting, Plotting Process graph components,figure tools,selecting plot types
8	Plotting in matlab: Basic Plotting (Multiple Data Sets in One Graph, Specifying Line Styles and Colors, Multiple Plots in One Figure, Setting Axis Limits).
9	Plotting in matlab: Mesh and surface plots, visualizing functions of two variables .
10	Plotting in matlab: Handle graphics: Work with graphics objects and set object properties. Animations: Create moving graphics
11	Matlab simulink: Simulink Concepts, simulink environment,basic elements,simulink librarys
12	Matlab simulink: Block Libraries,modifying the blocks ,interactive model editing,programmatic model editing and running simulation .
13	MATLAB GUI: Creating Graphical User Interfaces, introduces GUIDE, the MATLAB graphical user interface design environment, Laying out a GUI,
14	3D Computer Graphics Operations: Programming a GUI, introduces callbacks to define behavior of the GUI components, Menu-driven programs, Controls: uimenu and uicontrol.
15	Final Exam.

No.	PRACTICAL PART
1	Lab 1: Introduction to MATLAB .
2	Lab 2: Basic commands
3	Lab 3: Working with matrices part(I)
4	Lab 4: Working with matrices part(II)
5	Lab 5: Relational ,logical bitwise operations
6	Lab 6: Input and output commands in a script file.
7	Lab 7: Flow control(if and switch-case) statements
8	Lab 8: Loop(for,while,break,continue)statements
9	Lab 9: M-file functions
10	Lab 10: 2D Plotting functions
11	Lab 11: 3D Plotting functions
12	Lab 12: Basics of Matlab simulink
13	Lab 13: Graphical user interface part(I)
14	Lab 14: Graphical user interface part(II)

WORKLOAD & ECTS CREDITS OF THE COURSE UNIT :		CTE209 COMPUTER APPLICATIONS	
WORKLOAD FOR LEARNING & TEACHING ACTIVITIES			
TYPE OF THE LEARNING ACTIVATES	LEARNING ACTIVITIES (# OF WEEK)	DURATION (HOURS, H)	WORKLOAD (H)
Lecture & In-Class Activities	14	1	14
Preliminary & Further Study	3	1	3
Land Surveying	NA	NA	NA
Group Work	4	1	4
Laboratory	14	2	28
Reading	NA	NA	NA
Assignment (Homework)	5	2	10
Project Work	1	1	1
Seminar	1	2	2
Internship	NA	NA	NA
Technical Visit	NA	NA	NA
Web Based Learning	5	2	10
Implementation/Application/Practice	NA	NA	NA
Practice at a workplace	NA	NA	NA
Occupational Activity	NA	NA	NA
Social Activity	NA	NA	NA
Thesis Work	NA	NA	NA
Field Study	NA	NA	NA
Report Writing	2	2	4
Final Exam	1	3	3
Preparation for the Final Exam	1	10	10
Mid-Term Exam	1	2	2
Preparation for the Mid-Term Exam	1	5	5
Short Exam (Quizzes)	4	0.5	2
Preparation for the Short Exam	4	0.5	2
TOTAL WORKLOAD OF THE COURSE UNIT	61	35	100
Workload (h) / 25			100÷25
ECTS Credits allocated for the Course Unit			4

WEBSITE DESIGN Programme Course Description

CODE	NAME OF THE COURSE UNIT	SEMESTER	IN-CLASS HOURS (T+P)	CREDIT	ECTS CREDIT
CTE210	Website Design	2	3	2	3

GENERAL INFORMATION	
Language of Instruction:	English
Level of the Course Unit:	Bachelor's Degree
Type of the Course:	Compulsory
Mode of Delivery of the Course Unit	Face to Face
Coordinator of the Course Unit	Nawar Ali Ibrahim Al_Obaidy
Instructor(s) of the Course Unit	Nawar Ali Ibrahim Al_Obaidy

OBJECTIVES AND CONTENTS	
Objectives of the Course Unit:	The main objective of this course is to help students to create professional websites of all kinds with the help of modern systems and programs and experience in the field of websites. In addition to obtaining skills that enable them to fill a job efficiently in the same field and provide funds for their institutions, as well as the possibility of entering the world of e-commerce without programming and complexity and in a short time.
Contents of the Course Unit:	<ol style="list-style-type: none"> 1- Introduction to Website Building. 2- The Website and Its Future. 3- The Language of the Web: HTML5. 4- Structuring the content of a web page. 5- Style Sheets: CSS3. 6- Design and Creation a Website.

Week	KEY LEARNING OUTCOMES OF THE COURSE UNIT On successful completion of this course unit, students/learners will or will be able to dealing with:
1	Background and Phases of Evolution of the Web.
2	Web application architecture.
3	Choosing a Domain Name and Hosting
4	Installing WordPress and Account Setup
5	WordPress Admin Dashboard and the Features
6	Structure of an HTML5 document.
7	CSS3 Overview.
8	Process of creating a website.
9	Different website types and ergonomics the website
10	New Theme Installation
11	Header and Landing Page Top Design
12	How to Insert Logo, Site Title, and Setup Search Box on a Website
13	Explanation of Post Screen Option and its Use
14	Footer Design of a Website and Adding Social Media Link
15	Final Exam.

No.	PRACTICAL PART
1	Lab 1: Step-by-Step Guide to Registering Domain Name.
2	Lab 2: Structure of an HTML5 web page.
3	Lab 3: How to Design the Menu Items.
4	Lab 4: Simple Forms and Table Formatting.
5	Lab 5: How to Add Search on the Website.
6	Lab 6: How to Change Website Title and Description
7	Lab 7: Steps in Adding Gallery to a Website using Gallery Widget Option.
8	Lab 8: How to Place Slider on the Website.
9	Lab 9: How to Publish with Post Tool.
10	Lab 10: How to insert Page Break (Block) in a Post.
11	Lab 11: How to Hyperlink in a Post.
12	Lab 12: Inserting Image/Photo in the Post or Pages.
13	Lab 13: Creating a template model.
14	Lab 14: Creating a website from A to Z.

WORKLOAD & ECTS CREDITS OF THE COURSE UNIT:		CTE210 WEBSITE DESIGN	
WORKLOAD FOR LEARNING & TEACHING ACTIVITIES			
TYPE OF THE LEARNING ACTIVITIES	LEARNING ACTIVITIES(# OF WEEK)	DURATION(HOURS,H)	WORKLOAD(H)
Lecture & In-Class Activities	51	1	15
Preliminary & Further Study	NA	NA	NA
Land Surveying	NA	NA	NA
Group Work	NA	NA	NA
Laboratory	14	2	28
Reading	NA	NA	NA
Assignment (Homework)	2	2	4
Project Work	NA	NA	NA
Seminar	NA	NA	NA
Internship	NA	NA	NA
Technical Visit	NA	NA	NA
Web Based Learning	NA	NA	NA
Implementation/Application/Practice	NA	NA	NA
Practice at a workplace	NA	NA	NA
Occupational Activity	NA	NA	NA
Social Activity	NA	NA	NA
Thesis Work	NA	NA	NA
Field Study	NA	NA	NA
Report Writing	8	2	16
Final Exam	1	3	3
Preparation for the Final Exam	1	5	5
Mid-Term Exam	1	2	2
Preparation for the Mid-TermExam	1	2	2
Short Exam (Quizzes)	2	1	
Preparation for the Short Exam	2	1	
TOTAL WORKLOAD OF THE COURSE UNIT	44	16	75
Workload (h) / 25			75÷25
ECTS Credits allocated for the Course Unit			3

SUMMER TRAINING 1 Programme Course Description

CODE	NAME OF THE COURSE UNIT	SEMESTER	IN-CLASS HOURS (T+P)	CREDIT	ECTS CREDIT
CTE211	Summer Training 1	2	2	1	2

GENERAL INFORMATION	
Language of Instruction:	English
Level of the Course Unit:	Bachelor's Degree
Type of the Course:	Compulsory
Mode of Delivery of the Course Unit	Face to Face
Coordinator of the Course Unit	Dr. Basma MohammedKamal Younis
Instructor(s) of the Course Unit	Dr. Basma MohammedKamal Younis

OBJECTIVES AND CONTENTS	
Objectives of the Course Unit:	<p>1- القدرة على ربط المعرفة المكتسبة من الطالب خلال دراسته الاكاديمية بالمشاكل الحقيقية على ارض الواقع</p> <p>2- اكتشاف بيئة العمل واحتياجاتها وقيودها</p> <p>3- القدرة على تحديد المتطلبات المطلوبة لايجاد حلول مناسبة وفعالة للمشاكل الحقيقية على ارض الواقع مع وجود قيود فنية مختلفة</p> <p>4- القدرة على تكوين رؤية واضحة حول الاهداف والمعوقات والعمل بشكل فعال</p> <p>5- ايجاد الطالب استقلاليته باكتسابه لمهارات جديدة مع اشراف بسيط من قبل جهة التدريب .</p> <p>6- القدرة على ايجاد حلول مناسبة في حال حدوث اي تغيير في متطلبات العمل وقيوده</p> <p>7- القدرة على التواصل مع الكثير من الشخصا المتواجدين في المجال العملي .</p> <p>8- تعلم المسؤوليات الاخلاقية والاحترافية.</p>
Contents of the Course Unit:	<ul style="list-style-type: none"> - تشغيل وصيانة الحاسبات - بعض البرامج المستخدمة في صيانة الحاسوب - التعرف على الاعطال الشائعة في الحاسبات

WEEK	KEY LEARNING OUTCOMES OF THE COURSE UNIT : PRACTICAL PART
1	- تعريف الطالب على اقسام وشعب الموقع التدريبي مع اعطاء نبذة مختصرة عن اجزاء الحاسبة وكيفية عملها وامكانية صيانة بعض اجزائها.
2	- التعرف على اجزاء القرص الصلب وكيفية تقسيمه وطريقة خزن البيانات ومقارنته مع قرص SSD و M2 والطرق المستخدمة لتصفير القرص (NTFS,FAT16,FAT32)
3	- التعرف الاعطال الشائعة في الاقراص الصلبة وكيفية معالجتها والبرامج المستخدمة في عملية اصلاح الاقراص الصلبة واسترجاع المعلومات المحذوفة او المفقودة بعد عملية الاصلاح
4	- اعطاء نبذة مختصرة عن انواع الطابعات الالكترونية والاعطال التي تواجه هذه الطابعات وكيفية معالجتها. - التعرف على طبيعة الاجهزة المسيطر عليها حاسوبياً وكيفية عملها في حال توفرها في الموقع التدريبي
5	Final Exam

WORKLOAD & ECTS CREDITS OF THE COURSE UNIT :		CTE211 SUMMER TRAINING 1	
WORKLOAD FOR LEARNING & TEACHING ACTIVITIES			
TYPE OF THE LEARNING ACTIVATES	LEARNING ACTIVITIES (# OF WEEK)	DURATION (HOURS, H)	WORKLOAD (H)
Lecture & In-Class Activities	NA	NA	NA
Preliminary & Further Study	NA	NA	NA
Land Surveying	NA	NA	NA
Group Work	5	1	5
Laboratory	4	5	20
Reading	NA	NA	NA
Assignment (Homework)	8	1	8
Project Work	NA	NA	NA
Seminar	2	1	2
Internship	NA	NA	NA
Technical Visit	4	2	8
Web Based Learning	NA	NA	NA
Implementation/Application/Practice	NA	NA	NA
Practice at a workplace	NA	NA	NA
Occupational Activity	NA	NA	NA
Social Activity	NA	NA	NA
Thesis Work	NA	NA	NA
Field Study	NA	NA	NA
Report Writing	2	2	4
Final Exam	1	1	1
Preparation for the Final Exam	1	2	2
Mid-Term Exam	NA	NA	NA
Preparation for the Mid-Term Exam	NA	NA	NA
Short Exam (Quizzes)	NA	NA	NA
Preparation for the Short Exam	NA	NA	NA
TOTAL WORKLOAD OF THE COURSE UNIT	27	15	50
Workload (h) / 25			50÷25
ECTS Credits allocated for the Course Unit			2