



وصف المقرر الدراسي

قسم تقنيات الأشعة والسونار

المرحلة الأولى

المصطلحات الطبية

Medical terminology

Theoretical syllabus	
	details
	Structural analysis: basic rules of medical word building
	Major suffixes : suffixes denoting a state or condition
	Major suffixes : suffixes denoting a state or condition
	Major suffixes : suffixes denoting medical actions
	Prefixes : Prefixes of numbers & measures
	Prefixes : Prefixes of color
	Prefixes : Prefixes of direction & position
	Prefixes : Prefixes of size ,time & place
	Prefixes : Prefixes of size ,time & place
	Prefixes : Prefixes of negation
	Prefixes : Prefixes of type
	Roots
	Word terminals
	Conditions
	Terms concerning the body as a whole
	Terms concerning the skin & its appendages
	Terms concerning the GIT
	Terms concerning the respiratory system
	Terms concerning the cardiovascular system
	Terms concerning the blood & lymphatic system
	Terms concerning the musculoskeletal system
	Terms concerning the urogenital system
	Terms concerning the endocrine system
	Terms concerning the CNS
	Terms concerning the special senses
	Terms concerning the oncology
	Specialty related terms
	Specialty related terms
	Final examination

الكيمياء العامة

General chemistry

الانكليزية

Theoretical syllabus	
	details
	The atom & molecular structure .electronically distribution.
	Chemical bonding
	Liquid mixture
	Quantitative & qualitative analysis methods.
	Molar & normal concentrations & method. Problems & discussion.
	Acids, base –examples.
	Buffer solutions-types
	Volumetric analysis-types. Neuron chemical compound tralization.
	Oxidation & reduction.
	Cyclic volumetric
	Principles of organic chemistry, hydrocarbons, alkenes, preparation properties reactions.
	Alkenes & alkynes properties &reaction.
	Aromatic hydrocarbons
	Alcohols – classification & properties
	Ketones - properties, preparation & reaction
	Ethers, alkyl ether, aromatic ether- properties & reactions.
	Aldehydes- properties, preparation & reactions.
	Carboxylic acids
	Amines aryl amines
	Introduction to biochemistry
	Carbohydrates –classification & reactions
	Sugars, starches and fibers
	Isomers, classifications
	Nano chemistry application
	Biochemical in nanotechnology
	Biochemistry and the machinery of life
	Electrolytes, electrochemistry
	Biochemistry and analysis
	Biochemistry and nutrition
	Review of the subjects

General chemistry- practical syllabus

General chemistry- practical syllabus	
	Details
	Laboratory instructions
	Laboratory instruments & glass ware
	Analytical chemistry
	Preparation of standard solutions , percentage solutions, molar solutions & dilution methods
	Normal solutions.
	Buffer- acid, base.
	Test
	Volumetric analysis, standard solution titration, neutralization reaction.
	Oxidation titration.
	Perception titration.
	Coulometer (spectroscopy)
	Separation & purification of organic compounds ill-ration.
	Alcohols-identification, reactions.
	Unknown test
	Aldehyde & ketoses reactions.
	Reactions of carbohydrates & identification of types.
	Lipids-identifications& reactions.
	Identification of protein.
	Nano particles application
	Blood glucose
	Unknown test
	Determiration of some elements Ca⁺ , Cl⁻
	Cyclic voltammetry experiment
	Applications of nano-chemistry

البيولوجي

Biology

الانكليزية

Theoretical syllabus	
	Details
	Introduction, history & general concepts of biological cell theory, prokaryotic & eukaryotic cell.
	Plasma membrane (structure, integral protein, lipids). Functional activity fluid cell mosaic factors effect on permeability, chemical composition.
	Mitochondria (morphology, structure), lysosomes (types, function), Golgi complex (morphology, function).
	Endoplasmic reticulum (smooth & rough) their function. Ribosome, protein synthesis.
	The nucleus, nuclear envelope.
	The cell cycle. Mitosis, cell division, meiosis.
	Cell chemistry, water, salts, and ions.
	Macromolecules, proteins, carbohydrates, lipids.
	Nucleic acids.
	DNA structure & function.
	Chromosome, structure, changes (duplication, translocation, inversion)
	First examination
	Radiation biology concept, history, sources.
	Techniques used in radiation biology.
	Types of radiation, chemical yield, ionic yield.
	Radiation effects on water, hydrogen peroxide.
	Radiation effects on DNA molecule, repair mechanism.
	Application of radiation isotopes, medical application, food preservation by irradiation.
	Control of insects, genetic studies.
	Second examination
	Introduction to microbiology.
	Bacterial growth requirements.
	Bacterial growth curve.
	Anatomy of bacterial cell.
	Types of stains & smear preparation.
	Media & classification.
	Final examination

البايولوجي العملي

Biology

الانكليزية

Practical syllabus	
	Details
	prokaryotic & eukaryotic cell.
	Plasma membrane (structure, chemical composition).
	Mitochondria (structure), lysosomes (types), Golgi complex (structure).
	Endoplasmic reticulum (smooth & rough) . Ribosome.
	The nucleus, nuclear envelope.
	The cell cycle. Mitosis, cell division, meiosis.
	Cell chemistry, water, salts, and ions.
	Macromolecules, proteins, carbohydrates, lipids.
	Nucleic acids.
	DNA structure .
	Chromosome, structure, changes (duplication, translocation, inversion)
	First examination
	Radiation biology concept, history, sources.
	Techniques used in radiation biology.
	Types of radiation, chemical yield.
	Types of radiation, ionic yield.
	Radiation effects on water, hydrogen peroxide.
	Radiation effects on DNA molecule, repair mechanism.
	Application of radiation isotopes, medical application.
	food preservation by irradiation.
	Control of insects, genetic studies.
	Second examination
	Bacterial growth requirements.
	Bacterial growth curve.
	Anatomy of bacterial cell.
	Types of stains & smear preparation.
	Media & classification.
	Final examination

التشريح العام

General anatomy

الانكليزية

Details

Introduction, definition, surface anatomy & anatomical position, vertical & horizontal lines & planes of abdominal organs, cell & tissues, types.

Skeleton of upper limbs, muscles of upper limbs

The Hand

Skeleton of lower limbs, muscles of lower limbs

The foot

Joints, type of joints, and mechanism of movement

Skeleton of the chest: Ribs & sternum, segments of the spinal cord

Vertebrate, intervertebral disc.

Sacrum and coccyx, pelvis, bony pelvis.

Skull: bone of the skull.

Skull base, skull vault.

Facial bones, mandible and TMJ.

The Orbit

Nasal cavity paranasal sinus.

Meninges, and spinal meninges.

The mid brain, cerebral hemisphere, ventricles of the brain.

The hind brain: Cerebellum, pons and medulla oblongata.

Brain stem & spinal cord.

The cranial nerves

Lumbar and sacral plexuses.

Respiratory system: lung, bronchial tree, vascular supply.

Cardiovascular system: heart, heart chambers, major vessels.

Digestive system: pharynx, esophagus, and stomach.

Digestive system: small intestine, and blood supply to abdominal wall.

Digestive system: Large intestine,

Liver, biliary system, pancreas, and spleen.

Urinary system: Kidney, ureter, urinary bladder, urethra & blood supply.

The breast: general anatomy, lobular structures.

Male reproductive system.

Female reproductive system

Details
planes of abdominal organs, cell & tissues, types.
Skeleton of upper limbs, muscles of upper limbs
The Hand
Skeleton of lower limbs, muscles of lower limbs
The foot
Joints, type of joints, and mechanism of movement
Skeleton of the chest: Ribs & sternum, segments of the spinal cord
Vertebrate, intervertebral disc.
Sacrum and coccyx, pelvis, bony pelvis.
Skull: bone of the skull.
Skull base, skull vault.
Facial bones, mandible and TMJ.
The Orbit
Nasal cavity paranasal sinus.
Meninges, and spinal meninges.
The mid brain, cerebral hemisphere, ventricles of the brain.
The hind brain: Cerebellum, pons and medulla oblongata.
Brain stem & spinal cord.
The cranial nerves
Lumber and sacral plexuses.
Respiratory system: lung, bronchial tree, vascular supply.
Cardiovascular system: heart, heart chambers, major vessels.
Digestive system: pharynx, esophagus, and stomach.
Digestive system: small intestine, and blood supply to abdominal wall.
Digestive system: Large intestine,
Liver, biliary system, pancreas, and spleen.
Urinary system: Kidney, ureter, urinary bladder, urethra & blood supply.
The breast: general anatomy, lobular structures.
Male reproductive system.
Female reproductive system

علم وظائف الاعضاء

Physiology

الانكليزية

Theoretical syllabus

	Details
	Introduction to physiology,cells,cell components and functions
	Blood ,serum,plasma,plasma proteins function
	Platelets, Erythrocytes , erythropoietin function and importance
	Blood clotting, mechanism of bleed closing
	Physiology of circulatory system, Heart anatomy , heart as a pump
	Heart sounds and Cardiac output
	Blood pressure
	Digestive system
	Salivary glands & its function
	Liver& its function
	Physiology of nervous system
	Sensory system
	Motor system
	Anatomic of nervous system
	Endocrine control mechanism,pituitary gland
	First exam
	Adrenal gland, endocrine pancreas
	Function of respiratory system
	Lung volume, exchange & transport of gases in the body
	Physiology of renal system
	Kidney structure & function
	Role of kidney in regulation blood pressure
	Second examination
	Urine formation
	Female reproductive system
	Male reproductive system
	Physiology of pregnancy
	fetal development]
	Parturition, lactation
	Regulation of body temperature

physiology practical syllabus

	Details
	Microscope parts & uses
	Finger puncture –blood smear
	Staining of blood film
	Differential count of white blood cell(WBC)
	Sahli method for hemoglobin estimation
	Packed cell volume (PCV)
	Scientific film about blood & circulating system
	Blood grouping & Rh factor
	Bleeding & clotting time
	Red blood cell count
	White blood cell count
	Scientific film about bleeding & transfusion
	Revision
	Mid-year practical examination
	Erythrocyte sedimentation rate (ESR)
	Clinical examination of the patient
	Pulse & tracing of the pulse
	Thermometer & its uses
	Arterial blood pressure estimation
	Heart sounds
	Electrocardiogram (ECG)
	Revision
	Pulmonary volume estimation
	Artificial respiration
	General urine examination (GUE)
	Experiments on movement coordination
	Film about muscles & joints
	Taste sensation examination
	Final examination

الفيزياء العامة

General Physics

الإنكليزية

Theoretical syllabus

Theoretical syllabus	
	Details
	Review of general physical concepts and laws
	Physical units
	Velocity, Acceleration, Newton's laws
	Force and Momentum
	Work, Power, Energy
	Heat and Latent heat
	Methods of heat transferring
	Sound & Waves of sound
	Gases, Pressure, laws of pressure
	Electricity, AC & DC
	Magnetism
	Electromagnetism
	Faraday's law & Lenz's law
	Electromagnetic waves, E.M Spectrum
	The Atom, Elementary particles of the atom
	Principle of nanoscience
	The Quantum theory
	The photo-electric effect
	The Compton effect
	The wave nature of the matter
	Introduction of nanotechnology
	The production of X-Ray
	Properties of X-Ray radiation
	Application of nanomedicine
	Radioactivity & Particles
	Ionizing radiation & particles
	Nature of Ultrasound
	Physics of Quantum dot
	Light physics and properties
	Review of the subjects

practical syllabus

	Details
	Hook's law .
	The simple pendulum .
	Momentum of Inertia.
	Determination of static coefficient friction of wood .
	Ohm's Law.
	e.m.f and internal resistance of cell.
	Half-wave and full-wave rectifier circuit.
	Properties of series resonance circuits.
	Boyle's Law.
	Specific heat capacity .
	The coefficient Linear expansion.
	The quantum theory.
	Introduction of nanotechnology.
	Physics of quantum dot.
	Focal length of a concave mirror.

اسس التمريض

Nursing

العربية

المفردات النظرية

التفاصيل	
التمريض ومكانته بين العلوم الأخرى وتطوره في المجتمعات	
تعريف المرض، الرعاية الصحية الأولية والمؤسسات الصحية في العراق	
مؤهلات الممرض وعلاقته بالمرض والمجتمع وعلاقته بالعاملين في المستشفى	
العناية الحيوية- اخذ الحرارة عن طريق الفم، الشرج، تحت الإبطن عن طريق الفخذ ومعدل حرارة الجسم	
نبض القلب، مناطق اخذ النبض و صفات النبض (معدل السرعة، الإيقاع، الحجم و حالة جدارية الشريان)	
التنفس - تعريف التنفس، أنواع التنفس، بعض الأمراض التنفسية والعوامل المؤثرة على التنفس.	
ضغط الدم- تعريفه، أنواعه، طرق تنظيمه والعلامات المرضية.	
آلية الجسم - أوضاع المريض حسب ظروف المرض وكيفية التعامل مع المريض بتغيير أوضاعه (الظهرى، الوضع المكبوب، الجانبي، الركوع، شبه الجلوس و التسري)	
كيفية إعطاء و خزن الأدوية -تعريف الدواء- الموازين والقياسات- تأثير الدواء-الهدف من إعطاء الدواء	
طرق إعطاء الدواء (الفم، الشرج، الزرق، الاستنشاق) .	
المبادئ الأساسية للتعقيم و التطهير-التلوث- التطهير الطبي والجراحي.	
القسطرة البولية -تعريفها-الحالات المرضية التي تستخدم بها .	
الحقن الشرجية- أنواعها- كيفية استخدامها .	
غسيل المعدة -الدواعي المستوجبة لغسل المعدة -طرق استخدامها	
التغذية الاصطناعية-الحالات التي يجب اعطاء التغذية الاصطناعية فيها	
دور الممرض في التصوير الشعاعي-طرق الفحص الشعاعي	
تحضير المريض للفحص الشعاعي العام و الخاص	
تحضير المريض للفحص الشعاعي الخاص بالجهاز الهضمي و المرارة	
تحضير المريض للفحص الشعاعي الخاص بالجهاز البولي	
الاسعاف الاولي -مبادئ وتطبيقات الاسعافات الاولية	
الضما دات و الاربطة- عملية التضميد	
الجروح والنزف- انواع الجروح- تعريف النزف- مواضع الضغط الشرياني	
الحروق - تعريفها، انواعها، طرق الاسعاف.	
الاختناق- تعريفه، انواعه-طرق الاسعاف .	
الانعاش القلبي، الرئوي، تعريف التنفس الاصطناعي و طرقه.	
الكسور- تعريفها، انواعها، طرق الاسعاف	
التسمم - انواعه، طرق الاسعاف	
مبادئ الدفاع المدني	
اصابات الحرب	

Part 1: Computing Fundamentals

1	Operating systems OS's: (What is an OS's and what it can do ,types of OS's, their features importance); <u>Windows OS's</u> (95, 97, 2000, Me, Xp, Vista, 7, 8, 8.1 and 10) and their characteristics; <u>Explain the differences between Os's and software application;</u> <u>Computer power On / Off; Using Mouse and their buttons</u>	Display OS's basics, on / shutdown computer, log off, log on, restart, sleep, using mouse (pointing, selecting, dragging and execution)
2	<u>Looking at the Desktop ; Navigation around desktop; Using Start Button; Working with Application; Using Taskbar; Understanding Software and Hardware</u> (their differences , importance and relationships); <u>Explain how hardware can influence the OS and software and Vice Versa; Software updates, security and bugs; Software Ethics</u>	Using desktop, moving around the desktop and using the main application Icons, using start button; application programs (install, open, close and uninstall)
3	Files & Folders: <u>Looking at typical Window; Moving and Sizing Window; Using scroll Bars; Understanding and Using My Computer and Recycle Bin; Concepts of Drives, Folders and Files</u> (differences and importance); <u>Directory and Folder hierarchy and structure; Understanding File Name and common Extensions</u>	Looking at window details (Title bar, Tools bar, Address Bar, Status bar and Windows's content); Expand and collapse and close Window; Moving and resizing window;
4	<u>Folder And Files Managements</u> (Create, Copy, Cut, Delete, Rename, Find and Move); <u>Common Keyboard Shortcuts; Undelete folder and files using Recycle Bin; Display the differences between Uninstall and Undelete or Delete.</u>	Working with drive , folders and files using the listed operation ; using common shortcuts (Ctrl + C; +V; +A; +S...etc.); Restore folders or files
5	Computer Hardware; <u>Identifying Computers</u> (Main Frame; Super Computers; Mini computers; Desktop; Notebooks; Laptop; Tablet PCs; Servers; Hand-held or Mobile computers; Music or Media players and Electronic Book readers),	Identify the hardware and explain the different types of computer using illustrations or what provided by internet
6	<u>Looking Inside a Computer</u> (Microprocessor , System memory , Storage systems); <u>Recognizing Input /Output Devices</u> (using Keyboard; Pointing devices; Microphones; Monitor; Printers; Projector and Speakers); <u>Understanding How it works together</u>	Explain Microprocessor Chip , types of memory (RAM, ROM and SSD drive), memory units of measurements, storage devices, how to use keyboard; mouse; printers and other peripherals; identifying motherboard and their ports; how to connect computer resources
	Using Control Panel; <u>Customizing Desktop and Display; Changing Date and Time; Changing Language; Accessibility Settings</u>	Identifying the control panel icon, changing desktop icon; wallpaper; display type and size; setup time and date , using language options, using accessibility
	<u>Understanding Power Options</u> (Shut down, Sleep, Hibernate); <u>Working with Power settings; Identifying mode of operation</u> (Safe Mode and Normal Mode); <u>Understanding User Accounts and Rights</u> (Create New User Account; Changing Controls; Rights and Access)	Power off computer using different options; understanding the Mode of operations; Create User Account ; Log Off; Log On;

		Changing Accounts.
	<p>What is a Software (Checking System Requirements & Hardware Implications); <u>Application Software</u> (Integrated Suites, Desktop Publishing, Spreadsheets, Database Management, Presentations, Art, Engineering, Mathematic, Statistics, Medical, Management, Content Creation, Multimedia, Entertainment and System protection); <u>Managing Software</u> (Install New one, Uninstall, Reinstall and Updating Software</p>	<p>Understanding the application software; Types and their usage ; How install and Uninstall programs and display their differences from delete; Update or reinstall the software</p>
	<p><u>Disk Management Programs</u> (Disk Clean-up, Check, Optimize and compression); <u>What is Troubleshooting?</u>; <u>Managing Hardware/ Software</u>; <u>Keep Copies of data</u>; <u>Dealing with Viruses, Malware and Trojans</u>; <u>Getting windows help and support</u></p>	<p>Delete systematically unnecessary files, scandisk, defragment disk, compress disk; Understand the most common troubleshooting of computer or software; copy files or disk, using antiviruses; getting help for windows; getting online help</p>
	<p>Part 2 : Key Applications (Office 2013 Or 2010)</p>	
	<p>What is Key Applications?; <u>What it can do?</u>; <u>Getting started (Start & Exit program)</u>, <u>Looking at the main screen</u> (for Word , Excel & PowerPoint), <u>Accessing Commands</u> and <u>Characteristic Features</u>, <u>Understanding Ribbon</u>; <u>Tabs</u>; <u>Status Bar</u>; <u>Scroll Bar</u>, <u>Create files from templates</u>, <u>How to get Help</u>, <u>Manipulating Files and Data Exchange</u></p>	<p>Starting each program & identify the main screen in details as title bar , main ribbon and their tools, formula bar in excel , windows content, status bar ...etc.</p>
	<p>Microsoft Word:<u>Entering and Editing Text</u> (using editing keys), <u>Writing in Arabic and English</u> , <u>Changing Orientation</u> , <u>Using Ruler</u>, <u>Move Around the Document</u>, <u>Selecting Text</u> (word, line, paragraph, pages & all pages), <u>Save ; Close ; Open Document</u>, <u>Customizing View</u>, <u>Edit Text Using</u> (redo, undo, cut, copy & paste), <u>Formatting text using font command</u> , <u>Paint Brush</u> and <u>Alignment Types</u>, <u>Spell Check</u> and <u>Correction</u></p>	<p>Writing text with some wrong words and different formatting types to perform the task of this lesson</p>
	<p><u>Understanding Tab settings</u>, <u>Working with Indents</u>, <u>Organizing List</u>, <u>Working with Paragraphs</u>, <u>Change Line Space</u>, <u>Set Paragraph Space</u>, <u>Working with Styles&Using Quick Styles</u>, <u>Finding and Replacing items</u>, <u>Document Formatting</u>, <u>Page Background and Watermark</u>, <u>Learn how write Arabic in English direction</u> and write English word in Arabic direction</p>	<p>Indent text by hanging the first line or hanging the main paragraph body, line space types, find and replace text , find and replace using formatted text, add background or watermark, add different styles for word and pages</p>
	<p><u>Page setup</u> (change paper size, orientation, margins), <u>Insert Page breaks</u>, <u>Adding page number or titles</u>, <u>Applying Columns</u> and how to use it, <u>Preview and Print</u> document, <u>Using Multimedia files</u> (Insert images, objects) and manipulating them, <u>Using Tables</u> (create new one, insert excel table, selecting items in the table) and <u>Formatting Tables</u></p>	<p>Insert page number and/or images, clipart, excel sheet, create tables , change column size , adding row, formatting tables</p>
	<p>Microsoft Excel:<u>Understanding Basic Terminology</u> (Work</p>	<p>Work with the principles of workbook and worksheet and</p>

	<p>sheet, Work file, Cell, Cell pointer, Cell Content, Row & Column reference), <u>Building formula</u>, <u>Mathematical Operators</u>, <u>Hierarchy of the main mathematical operations</u>; <u>Managing Workbooks</u> (Create new one ; Create from Template, Enter data, Moving around, Saving ; Opening ; Closing Workbooks)</p>	<p>their contents; working with mathematical operators; create worksheet, using template; show the different types of data , save work, closing workbook or closing programs, moving around the main excel window</p>
	<p><u>Manipulating the contents</u> (selecting cells; columns; rows; worksheet, using undo & redo, copying & moving data, changing column width & row height); <u>Auto filling</u> technique; <u>Deleting & Editing content</u>; <u>Delete & Insert row or column</u>; <u>Formatting cells</u> (number; font; alignment; border; color and shading; protection of cells and work sheet)</p>	<p>Changing content , autofill data; manipulating worksheet and data, using the different option of formatting cell</p>
	<p><u>Creating simple and complex formula</u> using different types of writing, <u>Using absolute and relative address</u>, <u>Understanding common error values</u>; <u>Using common built-in functions</u> (Sum, Average, Max, Min, Count, Count A, Count Blank, If , Round, Sqrt, Today, Day360, Left, Right, Mid, Trim) ; <u>Copying Formulas</u>; <u>Insert & Deleting Worksheets</u>; <u>Formatting tables</u> using Auto format</p>	<p>Writing different types of formulas, copy formula, understand the difference between absolute and relative cell, identify error values, use common built-in functions; Customizing tables; managing sheets</p>
	<p><u>Working with charts</u> (Create chart, select chart elements, changing chart types, positioning & resizing charts, chart & axis titles, changing background and color effects, changing data series color, adding or removing legend & data labels & data tables & grid lines); <u>Sorting data Ascending&Descending</u> , <u>Sorting multiple fields</u>, <u>Filtering data</u> using <u>Auto</u> and <u>Customize</u> type; <u>Customizing printout</u> using options, <u>previewing& printing</u> worksheet</p>	<p>Build different types of chart; customizing their objects; built database table , Sort data , filter data, print database table or chart; changing print options</p>
	<p><u>Understanding PowerPoint&Presentation</u>; What dose a presentation <u>Include</u>; <u>Working with presentations</u> (Creating; Saving; Closing; Opening presentations); <u>Moving around</u> in the presentation; <u>Managing the Slides</u>(<u>Inserting</u>; <u>Deleting</u>; <u>Rearranging Slides</u>, <u>Changing Layout</u>, <u>Changing or modifying</u> themes</p>	<p>Create Presentations, Create using templet, insert slide , change slide layout, save work</p>
	<p><u>Managing Slide Objects</u> (Using Select Versus Edit Mode; <u>Manipulating Text</u>; <u>Create Tables & Charts</u>; <u>Inserting Pictures or Clip art or Multimedia</u>); <u>Creating a Master Slide</u>; <u>Animating Objects</u> (<u>Customizing the animation</u>, <u>Applying Slide Transitions</u>); <u>Running the Slide Show</u> and set up the presentation; <u>Previewing and Printing</u> Presentation</p>	<p>Open previous work, insert image, clipart, worksheet, sound , video as you need, put transition time within slide and transition time between slides, run slide show</p>
Part 3: Living Online		
	<p><u>The Internet, Browsers and the World Wide Web</u>(The Internet, The World Wide Web ,Web Browsers) ; <u>Understanding Web Site Addresses</u>(Web Site Protocols, Resource Names)</p>	<p>Exercise of checking connection of your computer system to the Internet, and use a simple utility (ping request) to test whether your Internet connection is functioning or not; Open web sites of different domains</p>

		(.net, .org, .com, .edu)
	Common Web Site/Page Elements; <u>Browser Features and Functions</u> (Browser Functions, Browser Features); <u>Getting Connected</u> ; <u>Defining Network</u> ; <u>Advantages of Using Networks</u> ; <u>Understanding Local Area Network (LAN) and Wide Area Network (WAN)</u> ; <u>Connected to the internet</u> (Dial-Up Connection, Direct Connection); <u>Domain and Sub Domain</u> , <u>Needs for Security& Firewalls</u>	Open different web browsers (Internet explorer, Firefox, Google Chrome and others) to explain their functions (Addressing, Uploading and Downloading, and Searching) and features (Back, Forward and Refresh Buttons, Home Page, Tabs, Favorites/Bookmarks, Checking the History, Plug-ins/Add-ons); Connect to the internet ; Identifying Networks and their types
	Digital communication: <u>How Can I Communicate with Others?</u> (Electronic Mail, Instant Messages, Text Messages, VoIP, Video Conferencing, Chat Rooms, Social Networking Sites, Blogs, Presence, and Standards for Electronic Communication)	Exercise of creating E-mail (Google mail, Yahoo mail); Social network account (Facebook and Twitter); Blogs; and others. Sending text message using Facebook messenger, Skype and other. Perform other activities in social networks (Status, Privacy, and Security)
	<u>Working with Email</u> (Usernames, Passwords and Credentials)	Explore E-mail properties: Security (Password, Password Recovery Information, and Alternative e- mail), sending e- mail (To, CC, BCC, and Subject), Attaching file to email, Building contacts list and others
	<u>Using Microsoft Outlook</u> (Creating New Messages, Receiving Messages, Working with Attachments, Managing Spam, Emptying the Junk E-mail Folder, Automating Outlook)	Sending Email using Outlook (With exploring all properties above)
	Digital Citizenship: <u>Identifying Ethical Issues</u> (Understanding Intellectual Property, Copyrights and Licensing); <u>Protecting Your Data or Computer</u> (Identifying Software Threats, Understanding Viruses), <u>Protecting Yourself While Online</u> ; <u>Buying Online</u> ; <u>How Much Information Should I Share?</u> , Protecting Your Privacy)	Try to make strong password; Try to remove files without recoverable ability (ex: CCleaner free application)
	Finding Information: <u>Searching for Information</u> (Different types of Web Sites, Searching a Specific Web Site); <u>Using Search Engine Technology</u> (Understanding How Search Engines Work)	Try web search for certain keywords using different search engine(ex: Google, Bing); Also search multimedia files (picture, audio or video)in specialized

		search engine (ex: <i>flickr.com</i> , <i>youtube.com</i>)
	<u>Narrowing the Search</u> ; <u>Evaluating the Information</u> (Reliability and Relevance; Validity and Authenticity; Objectivity and Bias)	Find specific and accurate information using google (<i>reduce no. of keywords, use quotation marks, use OR, search within certain site, and others</i>)
	1- Access Excluded from the program of First Year and moved to the second year to support Information and Data Management System which may need and for crowded program	
	2- Bold and Large-sized text represents the Main title of the lesson	
	3- The Underlined text represents the main subject	
	4- Books must be provided to support the instructor	
	5- Book link (https://www.amazon.com/Internet-Computing-Certification-Windows-Microsoft/dp/B01AHHOSTY/ref=sr_1_2?s=books&ie=UTF8&qid=1468531378&sr=1-2&keywords=ic3+gs4)	
	Product Details Spiral-bound ISBN-10: 1553324404 ISBN-13: 978-1553324409 ASIN: B01AHHOSTY Product Dimensions: 10.5 x 8 x 0.5 inches Shipping Weight: 1.1 pounds	