Ministry of Higher Education and Scientific Research

UNIVERSITY OF MISAN

College of Medicine





Curriculum

Syllabus of Medical College Curriculum

2020-2021

Ministry of Higher Education and Scientific Research

UNIVERSITY OF MISAN

College Of Medicine



Syllabus of Medical College Curriculum

First Year

2020-2021

Subject	***Medical biology***
Theory	**60 hrs**
Practical	**60 hrs**
Units	**6**
No	Title
1	**A. Molecular Cell Biology**
2	Introduction
3	From molecules to cells
4	Instrumentation with special reference to EM
5	Molecular organization of plasma membrane
6	Functional aspects of plasma membrane
7	Cellular differentiation
8	Cellular specialization
9	Cellular activities
10	Nucleus & celldivision
11	Cell chemistry
12	Cell organelles
13	Molecular Biology for specialized cells
14	Cellular aging
15	Non-living inclusions of cells
16	Molecular genetics
17	Introduction
18	Sex-linked inheritance
19	**B. Molecular structure of gene**
20	Molecular structure of genetic code
21	Molecular basis of crossing over
22	DNA structure
23	Mutations
24	Genetic controlmechanisms
25	Genetic engineering
26	Molecular basis of recombination
27	Preparation of recombinant DNA
28	Genetic cloning technique
29	**C. Preliminary Histology**
30	Connective tissues
31	Specialized connective tissues
32	Muscular tissue
33	Nervous tissue

Subject	***Human Anatomy***
Theory	**90 hrs**
Practical	**60 hrs**
Units	**8**
No	Title
1	**A. Upper Limb**
2	Introduction
3	Surface anatomy of the upper limb
4	Pectoral region
5	Axilla & Brachial plexus
6	Scapular region
7	The arm
8	The forearm, Cubital fossa
9	Joints: Introduction, Classification, individual joints
10	The hand
11	Applied anatomy
12	**B. Lower Limb**
13	Introduction to the lower limb, Bones
14	Front of the thigh
15	Lumbosacral plexus
16	Gluteal region
17	Posterior aspect of the thigh & popliteal fossa
18	Posterior aspect of the leg
19	Anterior aspect of the leg
20	Joints of the lower limb
21	The foot
22	Applied anatomy
23	**C. Thorax**
24	Thoracic wall as part of the body wall
25	Osteology of the chest wall
26	Intercostal spaces
27	Diaphragm
28	Chest wall & diaphragm during respiration
29	Divisions of the mediastinum
30	The superior mediastinum
31	Heart & pericardium
32	Chambers of the heart
33	Blood supply, nerves and plexuses of the heart
34	Pleurae and lungs
35	Posterior mediastinum

Subject	***Medical Chemistry***
Theory	**90 hrs**
Practical	**90 hrs**
Units	**9**
No	Title
1	**A. Inorganic and Analytical Chemistry** 1. Radioactivity and medical uses of radioactive isotopes 2. Ions in living systems and their importance 3. Acids, bases and salts of medical interests 4. The international system of units (SIU) 5. The pH concept, acid-base balance 6. Solutions and methods of expressing concentrations 7. Buffers and buffer systems of physiological importance 8. Colloidal chemistry and biological systems, dialysis and living systems 9. Chelation and possible applications in medicine
2	**B. BIOCHEMISTRY** **1. Carbohydrates** a. Introduction b. Classification and nomenclature of carbohydrates c. The three dimensional structure of monosaccharaides d. The cyclic structure of monosaccharaides e. Physical and chemical reactions of monosaccharaides f. Disaccharides g. Polysaccharides h. Biological importance of carbohydrates i. Digestion and absorption of carbohydrates **2. Lipids** a. .Introduction b. .Importance of lipids c. .Classification d. .Biological roles of lipids e. .Fatty acids, classification and reactions f. .Triacylglycerol/ Triglycerides (natural fats) g. .Phospholipids h. .Sphingolipids i. .Steroids, cholesterol j. .Lipoproteins., apolipoprotein k. Digestion and absorption of lipids
3	**ORGANIC CHEMISTRY** 1-Isomerism, stereoisomerism, chirality (optical isomerism and geometrical isomerism). A relationship to medical activity of organic compounds and living systems

	2. Stereochemistry of cyclic system (steroids) 3. Alcohols, phenols, ethers and thiols (oxidation and toxicity to (human 4. The chemistry of carbonyl compounds (aldehydes and ketons) 5. Carboxylic acids and some of their derivatives (urea, amides, (esters...etc 6. Alkaloids and heterocyclic compounds 7. The chemistry of antibiotics (effect of functional group on the (medical activity 8. Sulfur compounds (sulfa drugs)
4	**D. BIOCHEMISTRY** **Proteins and aminoacids** a. .Introduction b. .Classification and structure of amino acids c. .Titration curye of amino acids d. Reaction of aminoacids e. .Biological activity of peptides f. .Types ofbonds g. .Important properties of peptide bond h. Naming of polypeptides, determination of amino acids and sequence of polypeptides i. The folding of polypeptide chain and formation of different types of protein j. Structural levels of proteins k. Globular and fibrous proteins l. Biological function of proteins m. digestion of protein 4. Nucleic acids a. Introduction b. Nucleosides and Nucleotides c. Classification d. Role of nucleic acid in protein synthesis 5. Enzymes a. Definition, classification and nomenclature of enzymes b. properties of enzymes c. Factors affecting enzymatic reactions d. Enzymes specificity e. Enzymes kinetics and mechanism of action f. Enzymes inhibition g. Theories of enzymeactions

Subject	***Medical Physics***
Theory	**60 hrs**
Practice	**60 hrs**
Units	**6**
No	Title
1	Terminology, Modeling ,and Measurement & Force on and in the body
2	Physics of the Skeleton & Heat and Cold in Medicine
3	Energy ,Work, and Power of the Body & Pressure
4	Pressure
5	The Physics of the Lungs and Breathing
6	Physics of the Cardiovascular System
7	Electricity Within the Body
8	Cardiovascular Instrumentation
9	Application of Electricity and Magnetism in the Medicine
10	Sound in Medicine
11	Physics of the Ear and Hearing
12	Light in Medicine
13	Physics of Eyes and Vision
14	Laser in medicine
15	Physics of diagnostic X-ray
16	Physics of MRI and CT Scan
17	Physics of Nuclear Medicine
18	Physics of radiation therapy
19	Radiation protection in medicine

<table>
<tr><td>Subject</td><td>Medical foundations &Terminology</td></tr>
<tr><td>Theory</td><td>27 hrs</td></tr>
<tr><td>Practice</td><td>0</td></tr>
<tr><td>Units</td><td>2</td></tr>
<tr><td>No</td><td>Title</td></tr>
<tr><td>1</td><td>Foundations 15 hrs
1. Introductory Course to the Concepts of Health, Disease and environment 2 hours
2. BASIC TERMS AND CONCEPTS
3. ECOLOGY OF HEALTH
4. THE CONCEPT OF PREVENTIVE MEDICINE AND REVENTION 2hours
5. THE NATURAL HISTORY OF DISEASE
6. ENIVIRONMENT AND HEALTH 2houres
7. HOST-AGENT INTERACTIONS
8. Epidemiology
9. ACQUIRING INFECTIOUS AGENTS 2 hours
10. Emerging Infectious Diseases 2 hours</td></tr>
<tr><td>2</td><td>Medical Terminology 12hrs
<table>
<tr><td>subject</td><td>hrs.</td></tr>
<tr><td>What is medical terminology</td><td>1</td></tr>
<tr><td>Forming medical terms</td><td>1</td></tr>
<tr><td>Medical terms rules</td><td>2</td></tr>
<tr><td>body parts terminology</td><td>1</td></tr>
<tr><td>G.I.T terminology</td><td>1</td></tr>
<tr><td>nervous system terminology</td><td>1</td></tr>
<tr><td>hematological terminology</td><td>1</td></tr>
<tr><td>Dermatological terminology</td><td>1</td></tr>
<tr><td>Cardiovascular terminology</td><td>1</td></tr>
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الموضوع	***اللغة العربية***
نظري	ثلاثون ساعة
عملي	صفر ساعة
الوحدات	أثنان

ت	الموضوع	عدد الساعات
1	الكلمة	1
2	الأسماء	1
3	علامات الأسماء	1
4	الأفعال	1
5	علامات الأفعال	1
6	الحروف وأنواعها	1
7	المعارف	1
8	المعرف بأل.	1
9	الجموع وأنواعها.	1
10	جمع المذكر السالم.	1
11	جمع المؤنث السالم.	1
12	جموع التكسير	1
13	جموع القلة.	1
14	جموع الكثرة	1
15	المثنى وعلامات إعرابه.	1
16	أبواب الفعل المضارع.	1
17	الفعل الثلاثي والرباعي.	1
18	الفعل المزيد بحرف وحرفين.	1
19	حروف القلقلة الصغرى والكبرى.	1
20	الأسم المقصور والمنقوص والممدود.	1
21	حروف الغُنة.	1
22	همزتي الوصل والقطع.	1
23	حرفي الضاد والضاء.	1
24	رسم الهمزة.	1
25	رسم الألف.	1
26	القصص القرآني.	1
27	قصة يوسف النبي عليه السلام	1
28	-قصة أصحاب الكهف	1
29	قصة اصحاب الاخدود	1

Subject	**English Language**
Theory	**30 hrs**
Practice	**0**
Units	**2**

ENGLISH IN ME ENGLISH IN MEDICINE (CURRECULUM)

1.Taking a history 3 hrs

1- Asking basic questions
2- Taking notes
3- Reading skills: Scanning a case history
4- Case history: William Hudson

2. Taking a history 3hrs

1- Asking about systems
2- Asking about symptoms
3- Reading skills: Using a pharmacology reference
4- Case history: William Hudson

3. Examining a patient **3** hrs

1- Giving instructions
2- Understanding forms
3- Reading skills: Reading articles 1
4- Case history: William Hudson

4.Special examinations 4 hrs

1- Instructing, explaining and reassuring
2- Rephrasing, encouraging and prompting
3- Reading skills: Reading articles 1
4- Case history: William Hudson

5.Investigations. 3hrs

1- Explaining and discussing investigations
2- Using medical documents
3- Reading skills: Reading articles 2
4- Case history: William Hudson

6.Making a diagnosis 3 hrs

1- Discussing a diagnosis
2- Explaining a diagnosis
3- Reading skills: Reading articles 3
4- Case history: William Hudson

7 Treatment. 4 hrs

1- Medical treatment
2- Physiotherapy
3- Surgical treatment.
4- Reading skills: Using an online database

Human Rights

اسم المادة		عدد الساعات الاسبوعية			
باللغة العربية	باللغة الانكليزية	ن	ع	م	عدد الوحدات
حقوق الانسان	Human Rights	2	-	1	2

الاسبوع	المادة النظرية	عدد الساعات
1	مفهوم حقوق الاسان .التعريف الفقهي والقانوني لحقوق الانسان خصائص حقوق الانسان	2
2	حقوق الانسان في الشرائع السماوية. الشريعة اليهودية والمسيحية. حقوق الانسان في الشريعة الاسلامية	2
3	حقوق الانسان في الحضارات القديمة . حقوق الانسان في الحضارة اليونانية و الرومانية حقوق الانسان في حضارة وادي النيل و وادي الرافدين	2
4	أنواع حقوق الانسان حقوق الانسان الاساسية وغير الاساسية . حقوق الانسان الفردية والحقوق الجماعية	2
5	الإعلان العالمي لحقوق الانسان تعريف الاعلان العالمي لحقوق الإنسان. مضمون الاعلان العالمي لحقوق الانسان. القيمة القانونية للإعلان العالمي لحقوق الانسان. أهداف الاعلان العالمي لحقوق الانسان أهمية الاعلان العالمي لحقوق الانسان	2
6	ضمانات التشريعية لحقوق الانسان. ضمانات حقوق الانسان في التشريعات العراقية تقسيم الحقوق و الحريات	2
7	الضمانات الدستورية لحقوق الانسان أولاً: الضمانات الدستورية. 1- الدستور. 2- مبدأ سيادة القانون. 3- مبدأ الفصل بين السلطات. ثانياً: الضمانات القضائية. 1- حق التقاضي . 2- الرقابة القضائية على دستورية القوانين. 3- الرقابة على أعمال السلطة التنفيذية.	2
8	مفهوم الديمقراطية تعريف الديمقراطية الديمقراطية القديمة (أثينا). الديمقراطية الحديثة.	2
9	اركان الديمقراطية وصورها. اولا : اركان الديمقراطية ثانياً: صور الديمقراطية 1 – الديمقراطية المباشرة . 2 – الديمقراطية شبه المباشرة 3 – الديمقراطية النيابية.	2
10	خصائص الديمقراطية. وأهدافها. خصائص الديمقراطية. أهداف الديمقراطية.	2
11	طرق نشوء الديمقراطية. اولا: الطريق السرية 1: ثانياً : طريقة الفرض ثالثا : طريقة الثورة.	2

12	خصائص النظام الديمقراطي. اولا : وجود دستور. ثانيا : سيادة القانون. ثالثاً : حرية التعبير وابداء الراي. رابعاً: حرية تكوين الاحزاب السياسية. خامساً : استقلال السلطة القضائية.	2
13	آليات إسناد السلطة في النظم الديمقراطية. اولا: مفهوم الانتخاب. ثانياً : أساليب الانتخاب. 1 – الانتخاب المباشر والانتخاب غير المباشر. 2 – الانتخاب الفردي والانتخاب بقائمة. ثالثاً : الضمانات الكفيلة بحماية الانتخاب. 1 – أن يكون الانتخاب سري . 2 – المساواة في إبداء الرأي . عدم استعمال وسائل القسر والإكراه.	2
14	محاسن الديمقراطية وأهدافها. أولا: محاسن الديمقراطية . ثانياً : أهداف الديمقراطية.	2
15	مساوئ الديمقراطية. إعادة سريعة لما تناولناه في موضوع حقوق الإنسان .	2

Computer Sciences
Theory : 30 hrs
Practice: 60 hrs
Units: 4

Course Syllabus
Lecture No Title of the Subject
Lec 01 - 02 Welcome and Introduction to course material
Lec 03-04 Chapter One: Computer Fundamentals • What is Computer • Computer Generations • Data and Information • Features of Computer • Computer Components • Types of Computers
Lec 05-07 Chapter Two: Computer Components • Computer Parts • Hardware • Computer Ports • Key-points • Number Systems • Software • Programming languages • Personal Computer PC • Features of Personal Computer

Lec08-13 Chapter Three: Introduction to Operating System • OS Definition • Functions of the Operating System • Goals of OS • Classification of Operating Systems • Types of Operating Systems • Microsoft Widows • get started. • Control Panel • Folders and Files Managements
Lec 14 Chapter Four: Microsoft Word • Get started and window elements • Basic Operations • Formatting • Editing and layout • Insert tables and images
Mid-Term Exam
Lec 15-20 Chapter Five: Microsoft PowerPoint • Get started and window elements • Basic Operations • Formatting, Graphics, and charts • How to prepare scientific presentations
Lec 21-25 Chapter Six: Microsoft Excel
• Get started and window elements • Basic Operations • Functions
• Formatting • Graphics, and charts
Lec 26 Chapter Seven: Computer Safety and software licenses
Lec 27-29 The Internet and Communication
Lec 30 Review

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SECOND YEAR

2020-2021

Subject	Biochemistry
Theory	90hrs
Practice	60 hrs
Units	8
No	Title
1	Vitamins
2	Diagnostic Enzymology
3	Introduction to intermediary metabolism
4	Carbohydrate Metabolism a- Catabolism of carbohydrates b- Citric Acid cycle c- Hexose monophoshate shunt d- Fructose and Galactose Metabolism e- Diasaccharides Metabolism f-Glycogen Metabolism g- Gluconeogensis h-Control mechanism
5	Biological Oxidation
6	Cell Membrane -a Definition
7	Nutrition and Obesity a-Definition of nutrition
8	Haemoglobin a- Definition
9	Free radicals
10	Nucleotide metabolism
11	Acid base disturbance
12	Immuno globulin
13	Amino Acid Metabolism
14	Protein metabolism
15	Renal System
16	Mineral Metabolism
17	Antioxidants
18	Hormones
19	Chemistry of Cancer
20	Xenobiotics
21	Lipid Metabolism
22	The Muscle
23	Regulation & Integration of Metabolism -
24	Liver Functions Tests

Subject	Human Anatomy
Theory	120 hrs
Practice	120 hrs
Units	12
No	Title
1	Neuroanatomy: introduction Nervous tissue , CNS,PNS, ANS Neuroglioal cells - terms related
2	skull , osteology - views of the skull
3	Meninges dural folds - cranial venous sinuses
4	divisions of brain
5	cerebral hemispheres -external and internal structures
6	basal ganglia
7	ventricles of the brain
8	Brainstem Midbrain
9	Diencephalons
10	Pons
11	Cerebellum
12	blood supply of the brain
13	cerebrospinal fluid
14	spinal cord external and internal features
15	Tractology Of the spinal cord
16	pyramidal and extrapyramidal system
17	cranial nerves.
18	.scalp , - muscles, vessels, nerves and associated structures
19	Head & Neck temporal fossa infratemporal fossa
20	Nec k - surface anatomy - superfacial fascia
21	triangles of the neck posterior triangle muscles, vessels nerves and associated structures -
22	anterior triangle muscles, vesses nerves and associated - . structures Thyroid gland

23	main veins ,arteries and nerves of the neck . cervical plexuses
24	Face muscles , nerves ,vessels and associated structures muscles - of smastication
25	parotid gland
26	submandibular region
27	oral cavity
28	nasal cavity paranasal sinuses
29	.Larynx - muscles , associated structures
30	Ear , and related structures
31	Abdomen anterior abdominal wall muscles and associated structures posterior abdominal wall muscles and associated structures
32	inguinal canal inguinal hernia spermatic cord
33	Peritoneum arrangement of abdominal viscera
34	gastrointestinal tract esophagus
35	Stomach
36	small intestine large intestine blood vessels , nerves , lymphatics and associated structures
37	liver and biliary system
38	Spleen
39	Pancreas
40	retroperitoneal structures kidney suprarenal gland
41	lumbar plexuses
42	:Pelvis Pelvic skeleton and bony pelvis
43	contents of pelvic diaphragm visceral pelvic fascia
44	pelvic viscera in male
45	pelvic viscera in female
46	Perineum Urogenital diaphragm Contents of male genital triangle Contents of urogenital diaphragm in male and female

47	contents of anal triangle anal canal
48	Ischiorectal fossa
49	Clinical notes
Subject	**Embryology**
Theory	**30 hrs**
Practice	**0**
Units	**2**
No	Title
1	Introduction –Gametogenesis.
2	Chromosomes during mitosis &meiosis .
3	Morphological changes during gamete maturation .
4	– Spermatogenesis -Spermiognesis –Abnormal gamete . Ovulation
5	Fertilization . 1st week
6	2nd week development
7	3rd week development .
8	Differentiation of germ layers ,ectoderm .
9	Differentiation of mesoderm ,paraxial mesoderm and their . derivatives ,intermediate mesoderm & derivatives
10	Endoderm .
11	Formation of deciduas ,fetal membrane & development of placenta
12	Congenital malformation.
13	Skeletal system .
14	Muscular system
15	Body cavities & serous membranes
16	Cardiovascular system
17	Respiratory system
18	digestive System
19	Urogenital system.
20	Genital system.
21	Head& neck . .Dr. Feras 2hrs
22	Eye & ear.

Subject	Histology
Theory	**60 hrs**
Practice	**60 hrs**
Units	**6**

No	Title
1	Vascular system
2	Introduction
3	Blood vascularsystem
4	Capillaries
5	Type of capillaries (continuous and fenestrated)
6	Arteries . (Arteriole , small arteries , medium sized arteries ,Large (elastic arteries
7	Age changes in arteries . (Atherosclerosis)
8	Veins . (Venule, small vein, medium sized vein , large vein) –
9	Vasa vasorum
10	The skin and its appendages
11	Lymphatic system
12	Heamopoiesis
13	Digestive system
14	Respiratory system
15	Respiratory membrane
16	The endocrine system
17	Theurinary system
18	The excretory passages of the kidney . (The nephron)
19	Female reproductive system
20	Mammary glands
21	Male Reproductivesystem
22	Special sense organs

Subject	Physiology
Theory	150 hrs
Practice	60 hrs
Units	12
No	Title
1	Introduction to physiology & general physiology Subject and significance Methods of physiological research
2	Physiology and other sciences
3	Cell structure & function (Cellular organization)
4	Body fluids ,body water functions, Homeostasis
5	Body fluids , composition , dynamics , & Edema & Body water .functions, Body fluid dynamics
6	,Physiology of the muscles :Introduction type of the muscle Skeletal muscles ,structure , motor unit
7	,Excitability ,Mechanical response of muscle , muscle contraction
8	Type of contraction ,muscle fatigue , Summation of muscle contraction
9	Simple muscle twitch ,Effect of two muscle stimuli , Effect of repeated stimulation
0	Clonus & Tetanus , All or none Law , Muscle tone
10	Physiology of CNS
11	, Physiology of the hypothalamus & limbic system
12	The brain stem and reticular formation
13	Wakefulness , sleep & loss of consciousness
14	Cerebral control function. motor & sensory functions
15	Conditioned reflexes , speech , memory
16	Corticospinal tracts , EEG
17	Sensation: Introduction, & definition, the stimulus & adequate stimulus, sensory receptors. Classification of sensory receptors electrical and ionic events in receptors
18	The sensory unit , the receptive field , and cortical representation
19	Coding of sensory information , the sensory pathways ,role of ,proprioceptors in reflex and voluntary muscular contractions
20	The stretch (tendon) reflex ,The Golgi tendon organs , & inverse stretch , Gama efferent activity & muscles tone effect
21	,Superficial .deep & visceral sensation , touch pressure, sensation & vibration, cold ,warmth, pain sensations
22	Body temperature regulation, Normal temperature & set-point
23	Heat production , shivering , & non- shivering thermo genesis
24	Heat loss , hypothalamic regulations of body temperature Fever & Hypothermia Special Senses : Hearing & Equilibrium , Functional anatomy of

	the ear ,properties of hearing system
25	Theories of hearing
26	Vestibular function
27	Smell & test – smell receptors & pathways
28	Physiology of olfaction
29 30	Physiology of the test , test receptor organs & pathways
31	Vision : Functional anatomy of the eye
32	Blood composition & functions
33	RBCs ,hemoglobin & hemoglobin variants
34	Iron metabolisms & anemia
35	RBC destruction & hemolytic anemia
36	WBC morphology & classifications
37	Specific functions of different WBC
38	The immune system & allergy & HLA – typing
39	The platelets ,Homeostasis & blood coagulations
40	Blood group & blood transfusions
41	The plasma compositions & functions, the fibrinolytic activity of plasma
42	Functional anatomy of the kidney
43	Auto-regulation of renal blood flow
44	Mechanisms of glomerular filtration & GFR
45	Re-absorption & secretion in the tubule
46	Effect of excess intake , Effect of water loss
47	+Regulation of tubular re-absorption of N+ , Regulation of K balance
48	Diuretics
49	Creatinine clearance , Urea clearance The Hydrogen Ion & PH & Renal regulation of acid- base balance
50	Renal function test
51	+Fundamental chemistry of acid & base .concept of PH, & H+, H ion of body fluids & Henderson's- Hasselbach equation
52	Generations & elimination of H+ , Carbonic acids Body buffer system , distribution of body buffer system
53	Mechanisms of heart sounds , \abnormal sounds
54	Introduction to CV physiology & anatomical review
55	The heart coronary circulation & conducting system Specialized tissue
56	Cardiac cycle
57	The myocardium , structure , contraction ,action potential Ultra structure with comparison to skeletal muscle. Ionic role and bases of muscle contraction, excitation, and contraction coupling
60	Sterling-law (The mechanical properties of the cardiac muscle

61	Starling low of the heart (length-tension) relationship, types of muscle contraction). The electrical activity of the heart. Action potential ,first response and slow response. The refractory
62	.periods. Pacemaker cells and pacemaker action potential ECG –General back-ground , electrical axis , P, QRS ,& T wave and their clinical significance
63	ECG-Cardiac arrhythmias (blocks, Stock- Adam syndrome)
64	Action potential , myocardium , & conduction system Cellular bases of cardiac arrhythmias
65	Cardiac out-put, cardiac function curve methods of measuring
66	Cardiac out-put Factors regulating cardiac output
67	Hypotension & shock Transient ,hypotension prolonged .hypotension and its patho-physiological changes
68	Hypertension Volume loading , mechanism Vasoconstrictor mechanism Secondary ,hypertension primaryhypertension (essential)
69	Heart Failure
70	Cardiomyopathy
71	Ischemic heart disease
72	Exercise physiology
73	,Circulation , blood volume , & hematocrit, Poiseulle's , Ohm's laplace Laws Peripheral resistance, conductance, capacitance
74	.Compliance, laminar and turbulent flow, Reynolds numbers Local regulation of blood pressure ,auto regulation control (intrinsic control) & neural control (extrinsic) Regulation of BP short & long term control,
75	Systolic BP , Diastolic ,BP pulse pressure , Mean , Bp measurement of BP & Koratkov's sounds
76	The veins & there functions General venous pressure and its regulation. Venous pump, reference point, the filling pressure
77	Respiratory physiology functional anatomy
78	Lung volume & capacities & Pulmonary function test
79	Mechanics of breathing muscles of respiration , pressure changes during respiration
80	Expansion of the lung , compliance , Airways resistance
81	Pulmonary circulations , pressure & resistance of pulmonary blood vessels
82	Alveolar ventilation , distribution of ventilation & perfusions
83	Exchanges of gases & diffusion capacity
84	Transport of O2 ,& CO2 by blood
85	Control of ventilation
86	& General principles of GIFunctions , motility ,nervous control blood circulation
87	Introduction to the gastrointestinal tract, GI hormones

88	Secretory functions of the elementary tract , salivary ,gas .tric , pancreatic secretions
89	, Secretory function of the alimentary tract , bile ,small intestine large intestine secretions
90	Basic principles of GI , Ingestion , digestion & absorption
91	Absorption in GI tract , stomach , small intestine , large intestine
92	Bile salt synthesis & liver functions
93	Jaundice , liver function test
94	Physiology of GI disorders , swallowing disorders , DU , ,malabsorption
95	Constipation , Diarrhea , paralysis of defecation in spinal cord injuries
96	Nausea , vomiting, gastrointestinal obstruction
96	The sliding filament theory , thermal and chemical changes during muscle contraction
97	,Endocrine & reproductive Physiology, Introduction, The pituitary hypothalamic hormones, adenohypophesis, neurohypophesis, clinical correlate
98	The thyroid , the metabolic rate ,iodine metabolism , clinical correlate
99	, The parathyroid , calcium metabolism, & bone physiology clinical correlate
100	The adrenal glands ,the cortex ,and the medulla
101	The gonads ,the testes , the ovary
102	The organs with endocrine functions. The pancreas
103	The gonads ,the testes , the ovary
104	Reproduction ,pregnancy ,& lactations
105	Respiratory regulation of acid – base balance , Renal regulations of acid – base balance
106	Acid- base abnormalities
107	High altitude Physiology , Deep sea diving Physiology , Effect of low O2 .pressure on body , Effect of accelerated force on the body
108	Problems of temperature in aviation & space physiology
109	Radiation at the high altitude and space weightlessness
110	Echocardiography

Ministry of Higher Education and Scientific Research

UNIVERSITY OF MISAN

College Of Medicine

Syllabus of Medical College Curriculum

THIRD YEAR

2020-2021

Subject	Microbiology
Theory	90 hrs
Practice	60 hrs
Units	8
No	Title
1	**Part I. General Microbiology**
2	Introduction to the medical microbiology
3	Bacterial cell &Classification
4	Growth requirements , bacterial growth & culture media
5	Sterilization , Disinfections & Antimicrobial agents
6	Microbial Genetics
7	Pathogenesis of microbial infection
8	Normal flora
9	Review
0	**Part II : Systemic Bacteriology**
10	**Gram positive bacteria**
11	Staphylococcus (cocci shape bacteria)
12	Streptococcus spp. & Pneumococci
13	Corynebacterium & Listeria spp
14	Clostridium spp. & Bacillus spp. bacteria (Spore forming)
15	Propiobacterium spp
16	Mycobacterium
17	**B – Gram negative bacteria**
18	Neisseria spp
19	Hemophilus & Pasteurella
20	Bordetella &Brucella
21	Legionella pneumophila & Francisella
22	, Enterobacteriacae family (E. coli , Klebsiella , Salmonella Proteus , Shigella , Acinetobacter , & other associated bacteria
23	Pseudomonas spp
24	Yersinia spp
25	Helicobacter pylori
26	Vibrio & Campylobacter

27	Spirochete bacteria (Borelli , Spirullum, & Treponema)
28	**Part III. Intracellular parasitic bacteria**
29 30	Chlamydia spp
31	Mycoplasma spp
32	Rickettsia spp
33	Urine, stool samples & Body fluids
34	**Part IV. Basic & Clinical immunology**
35	.Introduction to immune system
36	Antigen & antibody , Cellular basic of immune system
37	B cell development, generation of B cells, regulation of B cell . development, positive & negative selection of B cells
38	T cell development, generation of T cells, positive selection of T .cells and negative selection of T cells
39	Innate & Acquired immunity
40	The Complement system , cascades and regulation of complement function
41	. Immune system cells migration and inflammation
42	Hypersensitivity reactions
43	Immunological tolerance
44	Transplantation
45	Autoimmunity diseases
46	Tumor immunity
47	Vaccination
48	Immunotherapy
49	Infection and immunity
50	**Part V. Medical Virology**
51	**A – General Virology**
52	General properties & Classification of virus
53	Replication of virus and genetics
54	Cultivation of viruses, effect of virus on host cells
55	Viral Pathogenesis (acute, chronic, latent, and slow viral infection)
56	Prevention and treatment of viral infections: interferon, antiviral chemotherapy and viral vaccines
57	**B – Systemic virology**
60	Parvo virus
61	Adeno & Pox virus

62	Herpes virusfamily
63	Orthomyxo virus family
64	Paromyxovirus family
65	Picorna virus
66	Viral hepatitis
67	Viral gastroenteritis
68	Arbovirus
69	Oncogenic virus
70	Retro virus (HIV) infection
71	Reo, corona virus, SARS
72	**Part VI. : Medical Mycology**
73	Introduction & general properties of fungi
74	Structures & Classification of fungi
75	Superficial mycosis
76	Cutaneous & Subcutaneous mycosis
77	Systemic & Opportunisticfungi

Subject	Parasitology
Theory	60 hrs.
Practice	60 hrs.
Units	6
No	Title
1	**1- Entamoeba of man** a- E. histolytica b- E. coli c- E. gingivalis d- E. hartmanni e- Endolimax nana f- Iodamoeba butschlii
2	**2- Flagellates protozoa** **A – Intestinal , oral & urogenital flagellates** Giardia lamblia , Dientamoeba fragilis , Trichomonas tenax , Blastocysitis hominis , T. vaginalis , Chilomastix mesnili and other intestinal flagellates **B – Blood & tissues flagellated** Leishmania tropica complex L. donovani , L . braziliensis , L. Mexicana , trypanosome rhodesiense , T. gambiense , T. cruzi
3	**3- Ciliate** Balantidium coli
4	**4- Sporozoa** a- Malaria parasite : Plasmodium vivax , P. malariae , P. falciparum , P. ovale b- Toxoplasma , Pneumocystis , Emeria , Sarcocystis , and Cryptosporidium
5	**Part II : Medical helminthology**
6	**1-Cestodes** General consideration
7	Taenia saginata , T. solium
8	Echinococcus & hydatid diseases
9	Diphylobothrium& sparganosis
10	Dipylidium caninum
11	Hymenolepis nana , H. diminuta

12	Multiceps multiceps
13	**2-Trematodes(flukes)**
14	Fasciola hepatica & F. gigantic
15	Clonorchis sinensis & Opisthorchis felineus
16	Intestinal and lung flukes
17	Schistosoma haematobium S. mansoni S. japonicum
18	Part III
19	**3-: Nematodes** General consideration a- Ascaris lumbrcoides b- Enterobius vermicularis c- Trichuris trichiuria d- Trichostrongylus e- Strongloides stercoralis f- Ancylostoma duodenale g- Necator americanus h- Cutaneous and visceral larva migrant i- Trichinella spiralis : j- The filariae 1 Wuchereria bancrofti – 2 Brugia malayia – 3 Mansonella perstans – 4 M. ozzardi – 5 Onchocerca volvulus - 6 loa loa – 7 Drancuncolus medinensis –
20	**Part IV : Medical Entomology**

Subject	General surgery
Theory	30 hrs
Practice	0
Units	2
No	**Title**
1	a. Wound healing and repair
2	b. Metabolic response to trauma
3	c. Surgical infections (specific &non-specific)
4	d. Sterilization, disinfection &hospital infection
5	Fluids, electrolytes and acid base balance
6	a. Shock
7	b. Accidents and life support
8	Hemorrhage
9	Blood transfusion and complications
0	Surgical Nutrition
10	Fistula, sinuses and ulcer
11	Burn
12	Parasites of surgical importance
13	Principles of skin Repair
14	Ischemia
15	Gangrene
16	Ulcers of the Leg &Foot unilateral limb edema
17	Venous disorders of the limbs
18	. Lymphatic disorders
19	

Subject	Famil yMedicine
Theory	30 hrs
Practice	30 hrs
Units	3

No	Title
1	Introduction to medical statistics
2	Summarization and presentation of data
3	Measurement of central location
4	Measurement ofvariability
5	Introduction to sampling
6	The normal distribution and its characteristics
7	The confidence interval and limit
8	:Tests ofsignificance ▶ the Z test ▶ the t test ▶ the χ^2 test
9	The concept of community diagnosis as an application of statistics in measuring population health
0	Definition of relevant terms
10	Nutrient metabolism and requirements
11	Nutrition and infection
12	Nutrition of specific groups of population
13	Nutritional surveys and assessment of nutritional status of population
14	Selected Nutritional diseases
15	Diet therapy and nutritional rehabilitation
16	

Subject	Pathology
Theory	120 hrs
Practice	120 hrs
Units	12
No	Title
1	**Introduction** De Definition & branches of pathology Causes and etiology of diseases Pathogenesis and nature of diseases Morphological changes of disease Prognosis and complications
2	**Cell injury, cell death and Adaptations** Overview of cellular response to stress & noxious stimuli .Cellular adaptations to stress Hypertrophy- Hyperplasia- Atrophy- Metaplasia Causes of - cell injury The morphology of cell and tissue injury Reversible injury- Necrosis- Patterns of tissue necrosis- Subcellular responses to injury - Mechanisms of cell injury Examples of irreversible cell injury and necrosis Coagulative necrosis- Caseous necrosis- Liquefactive necrosis- Fatty necrosis- Fibrinoid necrosis- Gangrenous necrosis - Apoptosis Intracellular accumulations Fatty change- Pigmentation (Exogenous and - endogenous) Pathological calcification-
3	**Acute And Chronic Inflammation** Overview of Inflammation

	- Definition - Causes :Types Acute Inflammation- Vascular changes- Change in vascular blood flow & - caliber Increased vascular permeability- Leukocytes cellular events- Leukocyte recruitment- Margination and rolling- Adhesion and transmigrations- Chemotaxis- Leukocytes activation- Phagocytosis- Killing and degradation of microbes- Outcomes of Acute Inflammation- Morphological patterns of acute - Inflammation Serous Inflammation- Fibrinous Inflammation- Suppurative (purulent) Inflammation- Catarrhal inflammation- Ulceration- Gangrenous Inflammation- Pseudomembranous Inflammation- Chemical Mediators- Cell derived mediators- Plasma protein derived mediators- Chronic Inflammation- Chronic inflammatory cells and - mediators Granulomatous inflammation- Morphological pattern of chronic - inflammation Systemic effects of Inflammation
4	**Tissue Repair: Regeneration, Healing and Fibrosis** .Overview of tissue repair Regeneration- The control of cell proliferation- The cell cycle- Proliferative capacities of tissues- Growth factors- Extracellular matrix (ECM) and cell matrix interactions- .Roles of extracellular matrix- Components of extracellular Matrix-

	Repair by connective tissue- Angiogenesis- Migration of fibroblasts and ECM - deposition (Scar formation) ECM and Tissue Remodeling - Cutaneous wound healing Healing by first intention- Healing by second intention- Wound strength- Pathologic Aspects of Repair Factors Affecting Wound Healing Local Factors- Systemic Factors-
5	**Microbial Infections** Introduction to microbial infections Non-specific defense mechanisms Categories of infectious agents Routes of infections How microorganism can cause disease. Viral infections Introduction- Mechanisms of viral injury at cellular - .level Transient viral infection- Latent viral infection- Slow viral infection- H1N1 viral infection - Bacterial infections Pathogenesis of bacterial infections- Acute bacterial infections- Acute bacterial infections general types- Common pyogenic bacteria- Gangrene Definition - and types Chronic bacterial infections- Mycobacterium tuberculosis - Leprosy- Syphilis- Fungal infections-
6	**Immunopathology** :Introduction Innate & adaptive immunity Cell & tissue of immune system Over review of normal immune responses :Hypersensitivity diseases

	Types of Hypersensitivity diseases- Type IHSR- Type II HSR- Type III HSR- Type IVHSR- Rejection oftransplants- Auto-immune disease- Immunodeficiency diseases- Primary Immunodeficiency- Secondary immunodeficiency- Amyloidosis-
7	**Disturbances of blood flow and body fluid Introduction** Edema and types Hyperemia andcongestion Hemorrhage Shock Cardiogenic shock- Hypovolemic shock- Septic shock- Stages of shock - Hypoxia Ischemia- Infarction- Review of normalhomeostasis Thrombosis Causes- Fate of thrombi - Embolism Pulmonary thromboembolism- Systemic thromboembolism- Types ofemboli-
8	**Medical Genetics 5** Mutations Mendelian disorders (Diseases caused by singlegene defects) Transmission patterns of single-gene disorders- Autosomal dominant disorders- Autosomal recessive disorders- X-linked disorders- Disorders wit multifactorial inheritance Cytogenetic disorders Cytogenetic disorders involving autosomes- Trisomy 21(Down syndrome)- Cytogenetic disorders involving sex - chromosomes Klinefelter syndrome- Turner syndrome-

	Single gene disorders with atypical patterns of inheritance Triplet repeat mutation: Fragile X- syndrome- Diseases caused by mutation of mitochondrial genes- Genomic imprinting: Prader-Willi and - Angelman syndromes Congenital anomalies Diagnosis of genetic diseases Florescence in situ hybridization- Molecular detection of genetic diseases- Indications for genetic analysis-
9	**Neoplasia** Definition Nomenclature Hamartoma Teratoma .Characteristics of benign and malignant neoplasms Atypia & dysplasia- Tumor grade and stage- Invasion & metastasis- Mechanism of invasion & metastasis- .Tumor angiogenesis- Kinetic of tumor cell growth- Tumor immunity Tumor antigens anti-tumor .effecter mechanisms Tumor & immunosurveilance. Carcinogenesis.-- Chemical, radiation and viral Molecular basis of .cancer .The clinical effect of neoplasia
10	**Cardiovascular systemThe Blood Vessels** - Vascular wall cells and their response to injury - Endothelial cells: Function and dysfunction - Vascular smooth muscle cells - Intimal thickening A response to vascular intimal injury - Atherosclerosis - Hypertensive vascular disease - Pathogenesis of hypertension - Mechanisms of essential hypertension - Vascular pathology in hypertension - Aneurysms - Abdominal aortic aneurysm - Aortic dissection - Vasculitis - .Giant cell(Temporal) arteritis

	- Thromboangiitis obliterance (Buerger (Disease Tumors- - Benign tumors Hemangioma- Lymphangioma- - Intermediate (Borderline) tumors Kaposi sarcoma- - Malignant tumors Angiosarcoma- The Heart - Congestive heart failure - Ischemic heart diseases - Angina pectoris - Myocardial infarction - Chronic ischemic heart disease - Sudden cardiac death Valvular heart diseases- - Rheumatic fever and heart disease - Infective Endocarditis - Primary myocardial diseases - Myocarditis - Congenital heart disease - Left-to-right shunts Atrial septal defects- Ventricular septal defects- Patent ductus arteriosus- - Right-to-left shunts Tetralogy of Fallot- Transposition of great arteries- - Pericardial diseases - Pericarditis - Pericardial effusions - Cardiac tumors
11	**Respiratory system** Upper respiratory tract Nose- Nasal sinuses -inflammatory conditions & - .tumors Nasopharynx inflammatory conditions- .Tumors- Angiofibroma- Nasopharyngeal carcinoma- .Larynx- ,Benign tumors-

	Singer's nodule- Polyp- Squamous papilloma- Malignant tumors- Squamous cellcarcinoma Lower - respiratorytract - Atelectasis (collapse) - Acute Lung injury - ObstructivePulmonary Disease .Bronchial asthma- .Chronic bronchitis- Bronchiectasis- Emphysema- Centrilobular emphysema- Panacinar emphysema- Pathogenesis- Restrictive defect- Chest walldisorders- Interstitial lung diseases- Acute respiratory distress syndrome- Chronic restrictive lung diseases- Pneumoconiosis- Interstitial fibrosis of unknown etiology- infiltrative lesions- Pneumonia- Bronchopneumonia- Lobar pneumonia- .Pulmonary hypertension- Causes- Pathological changes- .Pneumoconiosis- Classification- Pathological changes- Complications- Tumors- .Bronchial carcinoid- Typical- Atypical- .Small cell neuroendocrinecarcinoma- - large cell neuroendocrine carcinoma .Bronchial carcinoma- Squamous cell carcinoma- Adenocarcinoma- Small cellcarcinoma- Largecell carcinoma- .Pleura-

	Tumors- Mesothelioma- Benign- Malignant- .Secondary tumor-
12	**The Hematopoietic system** Red cell Disorders - Anemia of blood loss: Hemorrhage - Hemolytic Anemia Hereditary spherocytosis- Sickle cell anemia- - Thalassemia G6PD deficiency- Paroxysmal nocturnal hemoglobinuria- Immunohemolytic anemia- .Hemolytic anemia from mechanical trauma- Anemia of diminished erythopoiesis- Polycythemia White - cell Disorders - Non-neoplastic disorders of white cells - Neoplastic proliferation of white cells - Leukaemias Myeloproliferative disorders - Plasma cell disorders Multiple myeloma - Bleeding disorders Ideopathic thrombocytopenic purpura- Hemophilia- Von-Willbrand disease-
13	**Lymphoreticular system** Reactive lymphadenopathy - Acute non-specific lymphadenitis - Chronic non-specific lymphadenitis - Granulomatous lymphadenitis - Miscellaneous non-neoplastic diseases Neoplastic lymphadenopathy Hodgkin's lymphoma- - Non-Hodgkin's lymphoma Low-grade B-cell lymphoma- Low-grade T- cell lymphoma- High- grade B- cell lymphoma- High grade T- cell lymphoma - Metastatic lymphadenopathy Disorders of spleen Hypersplenism- Splenomegaly-

	Disorders of the Thymus - Thymic Hyperplasia - Thymoma
14	**Oral cavity and the Gastrointestinal Tract** Oral cavity Ulcerative and inflammatory lesions- Aphthous ulcer- Herpes virus infection- Oral candidiasis- Aids and Kaposi sarcoma - Esophagus - Anatomic and motor disorders Achalasia- - Hiatal hernia - Varices - Esophagitis (causes and types) - Barrett's esophagus - Esophageal carcinoma. Stomach Gastritis- Acute gastritis- Chronic gastritis- Gastric ulceration- Acute gastric ulceration- - peptic ulcers Gastric tumors- - Gastric polyps - Gastric Carcinoma - Etiology and pathogenesis Small and large intestine - Inflammatory bowel disease Crohn's disease- Ulcerative colitis- - Tumors of small and large intestines Non- neoplastic polyps- Adenomas- Familial polyposis syndromes- Colorectal carcinoma- Neoplasms of small intestine- , Other tumors of gastro-intestinal tract- Gastro-intestinal lymphoma and Carcinoid Appendix Appendicitis- Appendicular tumors-
15	**Liver, Gall bladder and pancreas**

	Liver Micro architecture of liver- Liver cell reaction to injury- Hepatitis- Viral- Alcoholic- Liver cirrhosis- Tumors Gall - bladder Cholelithiasis- Pure stones- Mixed stone- Acute cholecystitis- Chronic cholecystitis- Tumors Pancreas- Acute pancreatitis- Chronic pancreatitis- Tumors- Tumors of exocrine pancreas- Tumors of endocrine pancreas-
16	**Kidney and Urinary Tract System Clinical manifestations of renal diseases** Glomerular diseases Pathogenesis of glomerular diseases- - Circulating Immune complexes - In-situ complexes - Cell-mediated immune glomerulonephritis - Mediators of immune injury - Other mechanisms of glomerular injury The nephrotic syndrome- - Minimal change disease (lipoid nephrosis) - Focal and segmental glomerulosclerosis - Membranous nephropathy (Membranous (glomerulonephritis - Membranoproliferative glomerulonephritis The nephritic syndrome- Acute post infections (post streptococcal)- Glomerulonephritis- lgA nephropathy (Berger disease)- - Hereditary nephritis - Rapidly progressive (Crescentic)glomerulonephritis Chronic glomerulonephritis- Diseases affecting tubules and interstitium Tubulointerstitial nephritis-

	Acute pyelonephritis- Chronic pyelonephritis and reflux nephropathy- Drug induced interstitial nephritis- Acute tubular necrosis Diseases - involving blood vessels Benign nephrosclerosis- Malignant hypertension and malignant - nephrosclerosis Thrombotic microangiopathies - Cystic diseases of the kidney Simple cysts- Autosomal dominant (adult) polycystic kidney - diseases Autosomal recessive (childhood) polycystic - kidney diseases Medullary cystic diseases Urinary - outflow obstruction Renal stones- Hydronephrosis Tumors- Renal cell carcinoma- Wilm's tumor- Tumors of the renal pelvis and calyces- Diseases of urinary tract Ureter- Obstruction- Tumors - Urinary bladder- Acute cystitis- Chronic cystitis- Special forms of cystitis- Tumors- Urethra- Inflammation- Tumors-
17	**The female genital system** Vulva Vulvitis - Contact dermatitis- .Non-neoplastic epithelial disorders- Lichen sclerosus- Lichen simplex- Tumors- Condylomas and low grade Vulvar - .Intraepithelial Neoplasia

	High grade Vulvar Intraepithelial Neoplasia and - carcinoma .of vulva Vagina Vaginitis- Vaginal Intra- Epithelial neoplasia and - squamous cell carcinoma Sarcoma Botryoides - Cervix Cervicitis - Tumors of the cervix- Cervical Intraepithelial Neoplasia and - squamous cell .carcinoma Endocervical polyp. - Body of uterus - Endometritis - Adenomyosis - Endometriosis - Endometrial hyperplasia - Tumors of Endometrium and myometrium - Endometrial polyp - Leiomyoma Endometrial carcinoma - Ovaries - Non- neoplastic cysts Follicular and luteal cyst- Polycystic ovaries- .Chocolate cyst- - Tumor of the ovary - Surface epithelial stromal tumors Serous tumors- Mucinous tumors- Endometrioid tumors- Brenner tumors- Germ cell tumors- Teratomas- Benign(mature) cystic teratoma- Immature malignant teratoma- Specialized teratoma- Dysgerminoma- Choriocarcinoma- Yolk sac tumor- Sex cord stromal tumors- Granulosa cell tumor-

	Thecoma- fibroma- Sertoli- Leydig cell tumors- - Metastatic .Krukenberg's tumor- Diseases of placenta (pregnancy) - Ectopic pregnancy - Gestational trophoblastic disease Hydatidiform mole, complete and partial- Invasive Mole- Choriocarcinoma-
18	**Breast** Normal breast :Benign breast lesions Infections Acute pyogenic infections- Tuberculosis- Non infective inflammatory lesions - Mammary ductectasia - Granulomatous mastitis - Traumatic fat necrosis - Reaction to foreign body - Galactocele Fibrocystic disease of the breast :Benign tumors of the breast Fibroadenoma- Adenoma- Papilloma Breast - carcinoma Risk factors- Classification- In situ carcinoma : ductal, lobular- Invasive carcinoma- Ductal carcinoma(classical & subtypes)- Tubular carcinoma- Prognosis of breast carcinoma- Miscellaneous tumors of the breast : Phyllodes tumor, lymphoma Tumors of male breast
19	**Male genital System** Testicular neoplasms Germ cell tumor- - Seminoma - Variants - Non seminomatous Teratomas- Embryonal carcinoma- Yolk sac tumor-

	Choriocarcinoma- - Mixed germ cell tumor - Sex cord stromal tumor - Sertoli-Leydig cell tumor Mixed testicular tumor- - Testicular lymphoma Prostate Prostatic Hyperplasia- Prostatic carcinoma-
20	**Bones, Joints, and skeletal muscles** Diseases of bone Infections of bone- Pyogenic osteomyelitis- Tuberculous osteomyelitis- - Vitamin D deficiency rickets and osteomalacia - Paget's disease of bone - Bone tumors Bone forming tumors: osteoma, osteoid - ,osteoma osteogenicsarcom - :Cartilage forming tumors Osteochondroma- Chondroblastoma- Miscellaneous tumors- Ewing sarcoma- Giant cell tumor- Metastatic tumors of bone-
21	**The Endocrine System** Pituitary Hyperpitutarism and Pituitary Adenomas- Prolactinomas- Growth Hormone producing Adenomas- Corticotroph Cell Adenomas- Other Anterior Pituitary Neoplasms- Hypopituitarism- Posterior Pituitary Syndromes - Thyroid Hyperthyroidism- Hypothyroidism- Thyroiditis- Chronic lymphocytic (Hashimoto) thyroiditis- Sub acute granulomatous (de Quervain)- Sub acute lymphocytic thyroiditis- Other forms of thyroiditis- Graves diseases- Diffuse and multinodular goiter-

	Neoplasms of the Thyroid- Adenomas- Carcinomas- Papillary Carcinoma- Follicular Carcinoma- Medullary Carcinoma- Anaplastic Carcinoma - Parathyroid Glands Hyperparathyroidism- Primary Hyperparathyroidism- Secondary Hyperparathyroidism- Hyperparathyroidism - Adrenal Cortex Adrenocortical hyperfunction - (hyperaderenalism) Hypercortisolism (Cushing syndrome)- Hyperaldosteronism- Adernogenital syndromes- Adrenal insufficiency- Acute adrenocortical insufficiency- Chronic adrenocortical insufficiency (Addison - disease) Adrenocortical neoplasms - Adrenal Medulla Pheochomocytoma- Neuroblastoma and other neuronal neoplasm - Multiple Endocrine Neoplasia Syndromes Multiple Endocrine Neoplasia type 1- Multiple Endocrine Neoplasia type 2-
22	**The central and peripheral nervous system Cells of the nervous system** Neurons- Astrocytes- Oligodendrocytes- Ependymal cells- Microglia- Edema and hydrocephalus Cerebral edema- Hydrocephalus - Vascular diseases Globalhypoxic-ischemic encephalopathy- Infarcts- Intracranial hemorrhage- Primary brain parenchymal hemorrhage- Saccular aneurysm and subarachnoidal - hemorrhage

	Central nervous system trauma Epidural hematoma- Subdural hematoma- Infections of the nervous system Leptomeningitis- Acute purulent leptomeningitis- Acute lymphocytic (viral)meningitis- Chronic meningitis- Parenchymal infections (encephalitis)- Brain abscess- Viral encephalitis- Neoplasms of the central nervous system Primary neuroglial tumors(Gliomas)- Astrocytomas- Oligodendrogliomas- Ependymomas- Primitive neuroepithelialneoplasms- Meningiomas- Metastatic neoplasms-

Subject	Internal Medicine
Theory	45 hrs
Practice	60 hrs
Units	5
No	Title
1	Introduction
2	Basic nutrition
3	Malnutrition
4	Nutritional support
5	Water solublevitamins
6	Fat soluble vitamins
7	Obesity
8	Metabolic diseases
9	Hyperuricaemia
0	Willson's disease, haemochromatosis
10	Amyloidosis
11	Porphyrias, galactosaemia
12	Introduction to electrolytes& acid base balance
13	Sodium & water disturbance
14	Hypokalemia & hyperkalemia
15	Acid base balance
16	Metabolic acidosis, alkalosis
17	Respirationacidosis, alkalosis
18	Mixed acid base disturbance
19	Syndrome of inappropriate ADH secretion
20	Immune system
21	Immune deficiency
22	Inflammatory response & auto-immune diseases
23	Allergy
24	Transplantation& rejection
25	Introduction to infectious diseases
26	Leishmaniasis
27	Parasitic infections
28	Cholera
29	Giardiasis
30	Malaria
31	Toxoplasmosis
32	Amebiasis
33	Tetanus
34	Leprosy
35	Plague
36	Viral hemorrhagic fever
37	Pandemic influenza

38	COVID-19
39	Schistosomiasis
40	Hydatid disease
41	Intestinal tapeworm
42	Nematodes or roundworms
43	Kala azar
44	Enteric fever
45	Brucellosis
46	HIV
47	sepsis
48	PUO
49	Dysphagia and dyspepsia
50	Diarrhea and constipation
51	Weight loss

Subject	Pharmacology
Theory	90 hrs
Practice	60 hrs
Units	8

No	Title
1	General Pharmacology, Pharmacokinetics
2	Pharmacokinetics
3	Cholinergic system
4	Adrenergic system
5	Histamine and antihistamines
6	Serotonin , Kinins and Prostaglandins
7	Systemic Pharmacology Central nervous system
8	Anxiolytics and hypnotics
9	Antipsychotics Antidepressants
10	Antiepileptic Drugs Antiparkinsonian drugs
11	Non-narcotic and NSAID
12	Narcotic analgesic
13	Drugs for gout Antirheumatic drug Drug treatment for headache
14	General anaesthesia
15	Local anaesthesia Neuromuscular blocking drugs
16	Drugs acting on GIT
17	Drugs acting on respiratory tract
18	Diuretics Drugs acting on the heart Antihypertensive
19	Antiarrhythmic drugs
20	Hypolipidemic drugs Digitalis in heart failure
21	Blood Anti-coagulants
22	Anti-anemic drugs and vitamins
23	Antimicrobials Antibiotics (Part one)
24	Antibiotics (Part two)
25	Antifungal Antiviral Antiprotozoal and anthelmintic
26	Antituberculosis drugs Antimalarial drugs

	Antiseptics
27	Hormones Corticosteroids Thyroids hormones and antithyroid
28	Sex hormones, contraceptive drug Antidiabetics
29	Cytotoxic drugs Immunopharmacology
30	Drugs interaction Drug poisoning

Ministry of Higher Education and Scientific Research

UNIVERSITY OF MISAN

College Of Medicine



Syllabus of Medical

Syllabus of Medical College Curriculum

FOURTH YEAR

2020-2021

Subject	Family Medicine
Theory	90 hrs
Practice	60 hrs
Units	8

No	Title
1	Introduction : concept of health and disease, definition of epidemiology, epidemiological uses and approaches
2	Epidemiological data: types, sources and limitations
3	Epidemiological measurements : rates, proportions and ratios
4	Descriptive epidemiology: person, place and time
5	,Descriptiveepidemiologicalstudies:Cross-sectional,Longitudinal Case control, Cohort, Interventional
6	The concept of association, causation, risk
7	Analytical epidemiologicalstudies
8	-screening and quality control of screening and diagnostic tests clinical epidemiology
9	Designing epidemiological studies
10	The concept and investigation of epidemic
11	DEFINITION OF TERMS-
12	INFECTIONS ACQUIRED THROUGH THE- `:GASTROINTESTINAL TRACT
13	Diarrhoeal diseases: extent of the problem, causes, risk factors and control
14	Comparative epidemiology of rotavirus, salmonella, cholera and shigellosis
15	Amoebiasis and shigellosis
16	Bacterial foodpoisoning
17	Poliomyelitis
18	Infections hepatitisA
19	Typhoid and paratyphoid fever
20	INFECTIONS ACQUIRED THROUGHTHE RESPIRATORY - :SYSTEM (AIR BORNEINFECTIONS)
21	Acute respiratory infection (ARI): extent, causes, risk factors and strategies of control of ARI
22	Exanthematous infection: Measles, german measles, chicken pox…etc
23	Mouth and throat infection: Diphtheria, mumps, and tonsillitis
24	Whooping cough
25	Tuberculosis
26	Leprosy
27	Acute bacterial meningitis
28	PERCUTANEOUSINFECTION: INFECTIONS ACQUIRED - THROUGHTE SKIN
29	insect bites: malaria, leishmaniasis, rickettsiasid

30	abraisions: anthrax
31	animal bites, rabies
32	wounds: tetanus
33	injections: hepatitis B, AIDS
34	Pentration: Schistosomiasis, hookworm
35	sEXUALLY TRANSMITTED DISEASE-
36	zOoNOTIC INFECTIONS -
37	Nosocomial infections and traVELLER HEALTH -
38	epidemiology of ischaemic heart diseases
39	epidemiology of diabetes mellitus
40	epidemiology ofcancer
41	epidemiology ofaccidents
42	epidemiology of mental health and geriatrics
43	Introduction to MCH care
44	Components of MCHcare
45	Nutrition duringpregnancy
46	Infection during pregnancy
47	Low birth weight and prematurity
48	Evaluation of MCH care
49	under five clinics
50	growth monitoring
51	Immunization
52	Development clinics
53	care for handicapped children
54	School health services : concept and plans
55	Vital statistics in MCH care
56	,Definition of health and disease within the context of environment and environmentalhealth
57	Basic activities of environmental health
58	Water : sources , quality and related diseases
59	Air : sources of pollution, health effects and control of air pollution
60	Toxicology: Common environmental problems
61	Definition of occupational health
62	Objectives of occupational health services
63	Health hazards associated with work
64	Health hazards to the environment and community which result from industrialactivities
65	Safety measures in occupation
66	Selected occupational diseases
67	Limitation of the hospital model/Justifications for PHC
68	Definition, contents and difficulties of PHC/ Supportive prohrammes/ The five star doctor
69	National PHCprogrammes: EPI, CDD
70	National PHC programmes: ARI, MCH, Breast feeding
71	Brief historical view of Iraq health system

72	Concept ofadministration
73	Planning of health care services
74	Evaluation of health care services

Subject	**Medical Ethics**
Theory	**30 hrs**
Practice	**0 hrs**
Units	**2**
No	Title
1	Ethics in general and medical ethics as a subset
2	Principles of medical ethics: Theoretical background with extensive drawing on justification of teaching ethics
3	Ethics in International documents
4	Ethical consideration of Doctors and the community relationship
5	Ethical consideration in preventive medicine
6	Medical ethics in historical perspectives
7	Ethics and research
8	Doctors andpatients
9	Doctors andcolleagues
10	Ethics in surgical practice
11	Ethics in Gynaecology and obstetrics
12	Ethics in Paediatrics
13	Ethics in Psychiatric practice
14	Ethical consideration in human reproduction
15	Accountability in practicing medicine
16	,Special problems: Dying patients, surgical separation of twins Abortion, Refusal of necessary treatment
17	Optional topics

Subject	Obstetrics
Theory	60 .hr
Practice	60 .hr
Units	6

No	Title
1	Obstetric history taking & examination
2	Fertilization , implantation, fetal development
3	Fetal development and growth
4	Placenta development & function
5	Physiological changes in pregnancy
6	Antenatal care
7	Antenatal imaging & assessment of fetal wellbeing
8	Assessment of fetal wellbeing
9	Prenatal diagnosis
10	Minor complications of pregnancy
11	Urinary tractinfection
12	Fetal and maternal anatomy relevant to labor
13	The process of labour(physiology, onset, stages)
14	Mechanism oflabour
15	Management of normallabour
16	Pain relief inlabour
17	.Abnormal labour (poor progress in labour)
18	.Malpresentation (face, brow)
19	.Malposition (occipitoposterior position)
20	.Abnormal lie (transverse, oblique)
21	.Cord presentation , & prolapse
22	.Breech presentation
23	Induction of labour
24	postpartumhemorrhage
25	Abnormalities of 3rd stage of labour
26	Operative intervention in obstetrics
27	Types ofmiscarriage
28	The puerperium
29	The puerperium
30	Post-term pregnancy
31	Antepartum hemorrhage
32	Rhesus iso-immunization
33	Twins & higher multiples gestations
34	fetal growthrestriction
35	Intrauterine fetal death
36	Hypertensive disorders of pregnancy
37	Hypertensive disorders of pregnancy
38	Late miscarriage & preterm labour
39	Prelabour rupture of the membranes

40	Amniotic fluid & its abnormalities
41	Respiratory diseases during pregnancy
42	Heart diseases during pregnancy
43	Diabetes inpregnancy
44	Diabetes inpregnancy
45	Anemia in pregnancy
46	Renal disease in pregnancy
47	Thyroid disease in pregnancy
48	Liver disease in pregnancy
49	Coagulation disorders in pregnancy
50	Connective tissue disease in pregnancy
51	Perinatal infection
52	Perinatal infection
53	Venous thromboembolism
54	Abdominal pain in pregnancy
55	Obstetric emergency
56	Obstetric emergencies
57	Psychiatric disorders & the puerperium
58	Drugs in pregnancy
59	Maternal & perinatal mortality
60	Neonatology

Subject	General surgery
Theory	90 hrs.
Practice	90 hrs
Units	9
No	Title
1	Esophagus. Congenital anomaly, F.B., Tumors, Surgical aspect of Achalasia, Reflux, Hiatus Hernia
2	,Esophagus. Esophagitis, Dysphagia, Achalasia, Reflux, GERD Hiatus hernia
3	Stomach and Duodenum: Acute dilatation, Surgical treatment of peptic ulcer
4	,Stomach and Duodenum: Secretary tests, Radiology Endoscopy Gastritis, Peptic ulcers
5	Tumors of stomach, post gastric surgery complications
6	Gastro-intestinal bleeding and its treatment
7	:Liver ,Investigations ,Jaundice ,Hepatitis ,Cirrhosis Portal hypertension
8	:Spleen Indications for .surgery Surgical aspect of portal hypertension
9	Liver: Injury, Abscess, Cysts including Hydatid cyst, Tumors
10	,Gall bladder and Biliary tree: Investigations Congenital anomaly .Injuries, stones, Cholecystitis, Obstructive jaundice & Tumors
11	.Laparoscopy
12	Mesentery and :peritoneum ,Peritonitis ,Cysts Subphrenic .abscess
13	.Appendix: Appendicitis, Mass, Tumors
14	Pancreas: Pancreatitis acute and chronic, cysts, Tumors Exocrine .Endocrine&
15	Small and Large bowel diseases
16	Surgical anatomy and physiology
17	Constipation
18	Diverticular disease and blind loop syndrome
19	Inflammatory bowel diseases
20	Enterocutaneous fistula
21	Mesenteric vascular ischaemia
22	Intestinal obstruction
23	.Benign and Malignant tumors of intestine
24	Anorectal diseases
25	Surgical anatomy and physiology
26	Clinical assessement
27	Rectal prolapse, rectal Injuries and solitary rectal ulcer
28	Rectal tumours
29	.Pilonidal sinus
30	.Anal fissure, strictures, perianal abscess and perianal fistula

31	.Hemorrhoids
32	Anal canal tumours
33	Anal incontinence
34	Lower GIT bleeding
35	Diabetic foot and gangrene
36	Hernias
37	Abdominal wall
38	Urinary tract lectures
39	Urinary tract imaging
40	Congenital anomalies of kidney and ureter
41	Congenital anomalies of urinary bladder and urethra
42	Urinary tract infections
43	Vesico - ureteral reflux (VUR)
44	Genitourinary tuberculosis and bilharziasis
45	Minimal invasive Urology; Endourology, Laparoscopy, and
46	Robotic surgery
47	Urinary lithiasis
48	Obstructive uropathy
49	Tumors of the urinary bladder
50	Tumors of the kidney and ureter
51	Carcinoma of prostate
52	Benign prostatic hyperplasia
53	Benign disorders of the testicle
54	Tumors of the testis
55	Male infertility and sexual dysfunction
56	Renal transplantation
57	Introduction; anatomy and physiology of the kidney
58	Acute renal failure
59	Chronic renal failure
60	Nephritic and nephrotic syndromes
61	Glomerulonephritis
62	Glomerulopathies associated with systemic diseases
63	Diabetic nephropathy and hypertensive nephropathy
64	Drugs and the kidney

Subject	Pediatrics
Theory	30 hrs
Practice	0
Units	2
No	Title
1	**Infant feeding** ,Breast feeding, Formula feeding, Feeding problems, Constipation) (Vomiting and Abdominal pain
2	**Nutritional disorders** Kwashiorkor, Marasmus, Marasmus-Kwashiorkor, Failure to th) : (.Calcium metabolism and rickets
3	**Immunization** vaccine and expanded polio vaccine program, Other vaccines includi) : hepatitisB, Penta vaccine, Tetra vaccine, Measles vaccine, MMR) Complications and contraindications of vaccination .Immunization schedule in IRAQ
4	**Growth and development** definition, factors affecting growth and development, ph) : of growth and development, methods of measurement linear growth, circumferential skin fold, developmenta& (milestones from birth until puberty
5	**diseases Infectious:** meningitis, encephalitis, measles mumps rubella, whooping cou) : (poliomyelitis, kala-azar

Subject	Internal Medicine
Theory	135 hrs.
Practice	90 hrs
Units	12
No	Title
1	**A. Infectious diseases**
2	Salmonellosis (enteric fevers)
3	Bacillary dysentry
4	Brucellosis
5	Anthrax - Tetanus
6	Septic shocksyndrome
7	Food poisoning
8	Human immunodeficiencyvirus (HIV)
9	Cytomegalovirus infections
10	Infectious mononucelosis , haemorrhagic fevers
11	Pyrexia of unknown origin
12	Leptospirosis , Relapsing fever , Fungal infections
13	**B. Cardiovascular diseases**
14	Introduction and physiological aspects
15	Non invasive cardiovascular investigations
16	.Presenting Problems In Cardiovascular Disease
17	Disorders Of Heart Rate, Rhythm And Conduction
18	.Atherosclerosis
19	Coronary Heart Disease
20	Diseases Of The Heart Valves
21	Congenital Heart Disease
22	Rheumatic fever
23	Infective endocarditis
24	Diseases ofmyocardium
25	Diseases Of The Pericardium
26	Hypertension
27	Pregnancy and heart disease
28	Heart failure
29	Peripheral circulatory failure
30	Peripheral vascular diseases
31	**C. Respiratorydiseases**
32	Anatomical and physiological consideration
33	Common clinical manifestations of respiratory diseases
34	Investigations , and diagnostic procedures in respiratory
35	Acute upper respiratory tract infection
36	The pneumonias
37	Suppurative lung disease , bronchiectasis
38	Obstructive airway diseases
39	Pneumothorax

40	Pleural effusion
41	Interstitial lung diseases
42	Respiratory failure
43	Adult respiratory distress syndrome
44	Cor pulmonele
45	Bronchogenic carcinoma
46	Pulmonary T.B
47	Pulmonary embolism
48	**D.Endocrine and Metabolic disorders**
49	Introduction-neuroendocrine relationship
50	Pituitary glanddiseases
51	Thyroid glanddiseases
52	Diabetes mellitus
53	Adrenal gland diseases
54	Parathyroid gland diseases
55	Gonadal diseases
56	Dyslipidemia
57	Porphyria
58	**E.Gastroenterology and liver diseases**
59	Functional anatomy of gasterointestinal systeme
60	Common clinical manifestations of GIT
61	Investigations of theG.I. diseases
62	Diseases of the esophagus: dysphagia , esophagitis , hiatus hernia, achalasia, tumours
63	Ulcer Diseases of stomach
64	Tumours of the stomach
65	G.I.Bleeding
66	Malabsorption syndrome
67	Ischaemia and tumours of small bowel
68	Chronicinflammatory bowel diseases
69	Tumours of large bowel
70	,The liver: Acute paranchymal liver disease- acute viral hepatitis Acute fulminant hepatic failure ,Chronic liver disease , Portal hypertension
71	Drug induced liver disease
72	Tumours of the liver : biliary system
73	Pancreatic diseases: acute pancreatitis
74	biliary system
75	**F. Drug Poisoning**
76	Drug poisoning
77	Chemical poisoning

المادة	الطب العدلي
النظري	60 ساعة
العملي	60 ساعة
الوحدات	6

ت	العنـــــــــــــــــــــوان
1	المقدمة تعريف الطب العدلي- العلاقة بين الطب والقانون وأهمية الطب العدلي- الغاية من تدريس الطب العدلي لطلبة كلية الطب في مرحلة دراستهم- الجامعيه الاوليه- العلاقة بين الطبيب العدلي والسلطات القضائية- اوجه الاختلاف بين طبيعة عمل الطبيب العدلي والطبيب المعالج من حيث- : أ تعدد الاطراف ذات العلاقة- ج العلنية
2	الحالات الطبية العدلية أ الحالات الطبية العدلية في الاحياء- : فحص اثار الشدة بانواعها- تحديد الفترة الزمنية المنقضية على الحادث- تحديد ظروف الحادث وكيفية حصوله- الاعتداءات الجنسية المختلفة- فحص العنة والعقم- الحمل غير الشرعي والاجهاض الجنائي- فحص فصيلة الدم والبصمة الوراثية في نزاعات الابوة- انتفاء المسؤولية والمسؤولية الناقصة وتشمل- : *تقدير الاعمار بغض النظر عن المستمسك الرسمي- *الجنون اثناء ارتكاب الجريمة او اثناء المحاكمة- *الوقوع تحت تأثير المسكر والمخدر وقت ارتكاب الجريمة- أ الوفيات القضائية- -: -الاصابات والجروح المفضية للموت -الحروق المختلفة -الاختناق بوسائله المختلفة -الانتحار بوسائله المختلفة -التسمم بأنواعه المختلفة -الموت المفاجئ -الغرق -الوفيات تحت التخدير واثناء الاجراءات التشخيصية والعلاجية -اي وفاة تثير الشبهة والشكوك حولها وتحتاج البينة الطبية فيها

	دور و واجب الاطباء تجاه الحالات الطبية العدلية الاسعاف والعلاج- ضبط الادلة المادية- اخبار الجهات التحقيقية- التقرير الطبي العدلي وكيفية تنظيمه- تقييم شدة الاصابة- تقييم الحالة العامة الصحية للمصاب
3	الجروح تعريف الجروح الطبي والقضائي استعراض النصوص القانونية المتعلقة بالجروح والمصطلحات القانونية- الاسس المعتمدة في تصنيف الجروح: - 1مدى تأثيرها على صحة وحياة المصاب: *بسيطة- *خطيرة- *قاتلة- 2نوع الاداة المحدثة للجرح: - *السحجات والكدمات- *الجروح الرضية- *الجروح القطعية- *الجروح الطعنية- *الجروح الوخزية- *الجروح النارية- الفحص الطبي القضائي للجروح: - *نوع الجرح- *موقع الجرح- *صفات الجرح- *تقييم شدة الاصابة) بسيطة, -خطيرة , قاتلة(*تقييم الحالة العامة- للمصاب)جيدة, متوسطة, سيئة(*تحديد نوع الاداة المحدثة -للجرح *تحديد كيفية حصول -الاصابة)جنائية, انتحارية,عارضية , مفتعلة(*تحديد حيوية الاصابة في حال -حدوث الوفاة *تحديد الرابطة السببية بين -الاصابة والوفاة وبين الاصابة والحالة المرضية اسباب الموت في الجروح: - *اصابة اعضاء مهمة لديمومة الحياة

	*الصدمة العصبية *الصدمة الدموية *النهي العصبي *النزف الدموي *الخمج *الخثرات والصمات) الدموية,الشحمية, الهوائية(*عجز الكليتين *نزف الغدة الكظرية جروح مناطق الجسم المختلفة: - *جروح فروة الراس *كسور الجمجمة الكسور المباشرة) الخطية, -الانخسافية, التفتتية(الكسور غير المباشرة)الطولي, -المستعرض, الحلقي(*اصابات الدماغ الارتجاج الدماغي- الكدمة الدماغية- تمزق الدماغ- الوذمة الدماغية- النزف الدماغي- *الانزفة السحائية النزف فوق الجافية- النزف تحت الجافية- النزف تحت العنكبوتية- *كسور العمود الفقري واصابات الحبل الشوكي *جروح الرقبة) الانتحارية,الجنائية, العرضية(*اصابات الصدر: كسور الاضلاع- إصابات الرئة- إصابات القلب- إصابات الاوعية الدموية- *إصابات البطن: إصابات الطحال- إصابات الكبد- اصابات المعدة والامعاء- اصابات الكليةوالغده الكظريه -اصابات المثانة البولية-
4	جروح الاسلحة النارية

	*الغاية من دراسة جروح الاسلحة النارية *انواع الاسلحة النارية *صفات جروح الاسلحة النارية *تحديد مدخل ومخرج الطلق الناري *تحديد مسافة الاطلاق *تحديد اتجاه الاطلاق *تحديد نوع السلاح الناري *تحديد السبب الحقيقي للوفاة *ضبط الادلة المادية والجرمية *تحديد ظروف الحادث وكيفية الاصابة
5	ظروف الاصابة وكيفية حصول الحادث الكيفية الجنائية الكيفية الانتحارية الكيفية العارضية الكيفية المفتعلة
6	الموت *تعريف الموت *تشخيص الموت *اهمية تشخيص الموت *انواع الموت
7	الحروق تعريف الحروق- انواع الحروق- الحرق الكهربائي- الحرق الكيميائي- الحرق الحراري) الحرق الجاف, الحرق الرطب(- الاغراض المتحققة من دراسة الحروق تعيين درجة الحرق- - تعيين المساحة السطحية للحرق- تعيين العامل المسبب للحرق) الحرق الناري, الحرق السلقي(- تعيين حيوية الحرق- تعيين عوامل الخطورة في الحرق- العلامات السريرية والتشريحية للحرق- اسباب الوفاة في الحروق-

	اضرار البرد (عضة الصقيع او الموت بردا -)
8	الصدمة الكهربائية الصفات الفيزيائية للتيار الكهربائي- العلامات السريرية والتشريحية للحرق الكهربائي- اسباب والية الموت بالصعق الكهربائي- الصاعقة الجوية
9	الاختناق تعريف الاختناق- اسباب الاختناق- مراحل الاختناق- العلامات العامة للاختناق- انواع الاختناق- كتم النفس- الخنق اليدوي- الخنق الرباطي- الشنق- الاختناق بالضغط على الصدر) الاختناق الاصابي او الرضي(- الاختناق في حيز محكم الغلق- الاختناق باستنشاق جسم غريب) الغصص او الزهق(- الغرق: انواع الغرق) الغرق الجاف , الغرق الرطب(- *علامات انغمار الجثة في الماء *الية الموت في الغرق *المشاهدات التشريحية في الغرق
10	اصابات) وسائط النقل (السيارات *الاهداف من دراسة حوادث السيارات *انواع حوادث السيارات) دهس ,تصادم ,انقلاب السيارات(*اصابات مراحل الدهس *اصابات السائق
11	القضايا الجنسية *الحالات الواردة الى الطبابة العدلية وسبب ورودها *فحص غشاء البكارة *انواع الجرائم الجنسية *الاغتصاب

	*السفاح *هتك العرض *اللواط *الحمل غير الشرعي *الاجهاض الجنائي *جريمة قتل الوليد *العنة والعقم
12	الموت المفاجئ *تعريف الموت المفاجىء *اسباب الموت المفاجىء حسب الفئات العمرية المختلفة *احتشاء العضلة القلبية *الامراض النزفية وغير النزفية في الدماغ كالصرع والاورام والصمات *الصمة الدموية الرئوية *الربو *اسباب اخرى متفرقة *موت الرضع المفاجىء) موت المهد(*الموت اثناء العمليات الجراحية) الموت تحت التخدير العام (او اثناء الاجراءات
13	السموم *تعريف *العوامل المؤثرة في تاثير السم على الجسم *التسمم بالكحول *الادمان والاعتماد *التسمم بمبيدات الحشرات *التسمم بالكيروسين) النفط الابيض(*التسمم بالسيانايد *التسمم بغاز احادي اوكسيد الكاربون
14	الاستعراف -التعرف على الاحياء -التعرف على الجثث مجهولة الهوية الحديثة

Syllabus of the Medical ethics (Theory 30 hrs)

1- First term Objectives

Topic	Lectures
❖ **Principal Features of Medical Ethics** - What's special about medicine? - What's special about medical ethics? - Who decides what is ethical? - Does medical ethics change? - Does medical ethics differ from one country to another? - How do individuals decide what is ethical?	4 hours
❖ **Physicians and Patients** - What's special about the physician-patient relationship? - Respect and equal treatment. - Communication and consent. - Decision-making for incompetent patients.	4 hours
❖ **Physicians and Society** - What's special about the physician-society relationship? - Dual loyalty. - Resource allocation. - Public health. - Global health.	4 hours

2. second term objectives

Topic	Lectures
❖ **Physicians and Colleagues** - Challenges to medical authority. - Relationships with physician colleagues, teachers and Students. - Reporting unsafe or unethical practices. - Relationships with other health professionals. - Cooperation. - Conflict resolution	6 hours
❖ **Medical Research** - Importance of medical research. - Research in medical practice. - Ethical requirements. - Ethics review committee approval. - Risks and benefits. - Conflict of roles. - Honest reporting of results	6 hours

Ministry of Higher Education and Scientific Research

UNIVERSITY OF MISAN

College Of Medicine

Syllabus of Medical College Curriculum

FIFTH YEAR

2020-2021

Subject	Gynecology and Obstetrics
Theory	60 hrs
Practice	60 hrs
Units	6

No	Title
1	Menstrual cycle
2	Amenorrhea
3	Amenorrhea 2
4	Normal and abnormal sexual development(GT abnormality
5	Puberty
6	Androgen excess
7	Thenormal menstrual cycle
8	-Disorder of the menstrual cycle
9	Embryology of the female reproductive system
10	Polycycstic ovarian syndrome
11	Heavy menstrual bleeding
12	Dysfunctional uterine bleeding (BEO)
13	Dysmenorrhea
14	Premenstrual tension syndrome
15	Postmenopausal bleeding
16	Lower genital tract infection
17	Upper genital tract infection
18	Sexual transmitted infections
19	Fertility control, contraception
20	Contraception & sterilization
21	Subfertility 1
22	Subfertility 2
23	Assisted reproductive technology
24	Problems in early pregnancy - Recurrent miscarriage
25	Ectopic pregnancy
26	Gestational trophoblastic disorder (GTD)
27	Persistent GTD
28	Endometriosis &adenomyosis
29	Benign diseases of the uterus and cervix
30	Benign diseases of the ovary
31	Benign tumors of the ovary
32	Malignant tumors of the ovary and fallopian tube
33	Malignant tumors of the ovary and fallopian tube
34	Ovarian tumor duringpregnancy
35	Malignant disease of the uterus
36	Premalignant disease of the cervix
37	Premalignant disease of the cervix
38	Malignant disease of the cervix
39	Malignant disease of the cervix

40	Benign disease of the vulva
41	Malignant disease of the vulva
42	Benign & malignant disease of the vagina
43	Infection in gynecology- HIV
44	Tuberculosis of the genital tract
45	Urogynecology 1
46	Urogynecology2
47	Urogynecology 3
48	Pelvic organ prolapse(anatomy) 1
49	Pelvic organ prolapse 2
50	Themenopause 1
51	Themenopause 2
52	Endoscopic surgery in gynecology 1
53	Endoscopic surgery in gynecology 2
54	Gynecological operations 1
55	Gynecological operations 2
56	Postoperative complications in gynecology
57	Chronic pelvic pain and back pain
58	Hormone therapy ingynecology
59	Radiotherapy in gynecology
60	Chemotherapy ingynecology

Subject	General surgery
Theory	120 hrs
Practice	120 hrs
Units	12
No	Title
1	**A. Cardiothoracic surgery lectures**
2	Chest wall, pleura, lung, and mediastinum:(Anatomy,Thoracic ,Incisions Thoracic ,Injuries Conditions Requiring Urgent Correction, Dangerous But Less Compelling Injurie, Congenital Deformities, Chest Wall Tumors
3	,Diseases of the Pleura and Pleural Space : Pleural Effusion Tumors
4	,Lung: Anatomy, Diagnostic Modalities, Congenital Lung Lesions ,Pulmonary Infections ,Tumors(Primary Carcinoma Solitary) Pulmonary Nodules, Other Lung Tumors
5	Trachea: Congenital Lesions, Trauma, Neoplasms
6	:Mediastinum Tumors and Cysts, Mediastinitis , Superior Vena Caval Obstruction
7	Cardiac :surgery Cardiopulmonary bypass, Congenital heart disease, Acquired heart disease (valvular heart diseases and ischaemic heart diseases) , Valves replacement surgery and Cardiac pacemaker, Cardiac transplantation and cardiac tumours
8	:Pericardium anatomy and ,physiology pericardial ,effusion constrictive pericarditis and pericardiocentesis
9	B. **Vascular surgery lectures**
10	Investigations of vascular diseases
11	Aneurysmal diseases
12	Thoracic aortic dissection
13	Occlusive disease (Atherosclerosis and Vasculitis)
14	Vascular embolism
15	Arteriovenous fistulas
16	Vascular trauma
17	Vasospastic disorders (Raynaud's phenomenon and Vibration .(white finger
18	Cold injury
19	**C. Maxillofacial surgery lectures**
20	Maxillofacial injuries
21	Orthopantomography, mandibular dislocation and Developmental abnormalities of the teeth
22	Swellings of the jaw
23	Infections in Maxillofacial surgery
24	Congenital anomalies of the face, lips and palate (cleft lip and cleft (palate
25	Oral cavity disorders: congenital anomalies, ranula, dermoid cyst

	and stomatitis
26	Premalignant conditions of oral cavity and oral and aerodigestive cancers
27	Tongue disorders: tongue ulcers, fissures, tongue tie, glossitis and tongue tumours
28	**D. Anesthesia**
29	History of anaesthesia ,and Preparation for anaesthesia
30	Preoperative investigation
31	Preoperative evaluation and management
32	Preoperative drugs and treatment
33	General anaesthesia
34	Management of the airway during anaesthesia General
35	Haemostasis and blood pressure control
36	Monitoring during anaesthesia
37	Recovery from general anaesthesia
38	Management of blood pressure in the recovery room (hypo and (hypertension
39	Local anaesthesia
40	Perioperative pain relief (acute pain management
41	post operative pain management
42	chronic painrelief
43	**E. Orthopedic**
44	Fractures and Joint Injuries .1
45	Themanagement of major injuries
46	.Principle offractures
47	.Injuries of the shoulder, upper arm and elbow
48	.Injuries of the forearm and wrist
49	.Hand injuries
50	.Injuries of the spine
51	.Injuries of the pelvis
52	.Injuries of the hip and femur
53	.Injuries of the knee and leg
54	.Injuries of the ankle and foot
55	General Orthopedics .2
56	.Orthopedic diagnosis
57	.Infection
58	.Rheumatic disorders
59	.Crystal deposition disorders
60	.Osteoarthritis
61	Osteonecrosis and related disorders
62	Orthopedicsurgery .3
63	Acute Osteomyelitis
64	Genetic disorders
65	Rheumatic disorders
66	Hand congenital and acquired deformities

67	Neuromuscular disorders
68	Congenital footdeformities
69	Chronic Osteomyelitis
70	Crystal deposition disorders
71	Peripheral nerve injuries
72	Wrist disorders
73	Metabolic and endocrine disorders
74	Elbow disorders
75	Hip disorders
76	Bone Tumors
77	Shoulder and pectoral girdle disorders
78	Bone Tumors
79	Hand disorders
80	Cervical disorders
81	Scoliosis andkyphosis
82	Knee disorders
83	Intervertebral discprolapsed
84	Orthopedic operations
85	Knee joint swelling
86	Hand infections
87	Torticolis
88	Deformities of toes
89	Soft tissue tumors
90	Ankylosing spondylitis
91	Spondylolysthesis

Subject	Dermatology
Theory	30 hrs
Practice	30 hrs
Units	3

No	Title
1	.Anatomy &functionof the skin
2	Histology of the skin, general terms and morphological of skin . lesions
3	Bacterial skininfection
4	.Fungal infections (Mycoses)
5	.Viral infections
6	.TB andLeprosy
7	.Disorders ofpigmentation
8	Disorders of sebaceous gland
9	Disorders of sweat gland
10	Disorders of blood vessels
11	.Leishmania
12	.Psoriasis
13	.Lichen planus ,pityriasis rosea
14	.Acne ,Acniform rash ,Acne rosacea
15	.Urticaria & erythemas
16	.Bullous eruption
17	Reaction to physical agent
18	.Eczema , atopic dermatitis
19	.Nail & its disorders
20	Skin tumors
21	.Contaneus manifestation of internal organs and AIDS
22	.Drugs eruptions
23	.Genodermatoses
24	Skin in connective tissue diseases.1
25	Skin in connective tissue diseases.2
26	.Syphilis and other treponematosis
27	.Chancoroid and other genital ulcers
28	.Urtheral discharge-Gonococcal &non gonococcal urthritis
29	.Dermatological therapy: topical &physical therapies
30	.Systemic therapies

Subject	E.N.T
Theory	30 hrs
Practice	30 hrs
Units	3

No	Title
1	Surgical anatomy and applied physiology of the nose paranasal .sinses
2	.Radiology and endoscopy of the nose and paranasal sinuses
3	Congenital malformation and injuries of the nose and paranasal .sinuses
4	Infection of the nose and paranasal sinuses and their management
5	.Nasal allergy and vasomotor rhinitis
6	.Epistaxis
7	.Tumors of the nose and paranasal sinuses
8	Surgical anatomy and applied physiology of pharynx and .esophagus
9	.Inflammation of the mouth and pharynx
10	Ulcers
11	.Tonsillitis and Adenoid is-Adenoid hyper atrophy
12	.Tonsillitis and Adenoidectomy, indications and complications
13	.Tumors of the nasopharynx and hypopharynx-Dyspagia
14	.Surgical anatomy and applied of the Larynx
15	.Congenital malformations and injuries of the Larynx
16	.Acute and chronic Laryngitis
17	.Hoarseness
18	.Stridor
19	.Tumors of the Larynx
20	.Lump in the Neck
21	.Surgical anatomy of the ear –labyrinth
22	.Physiology of hearing and vestibular system
23	.Hearing impairment and audio logical assessment
24	Vertigo and neurological assessment
25	.Congenital malformation, trauma and neoplasm of the ear
26	.Otitis media Acute, chronic and secretory
27	Complications of the middle ear infections
28	.Principles of middle ear surgery
29	.Otosclerosis
30	.Mienier's disease
31	B.P.P.V
32	Vestibular neuronitis

Subject	Ophthalmology
Theory	30 hrs
Practice	30 hrs
Units	3
No	Title
1	,Refractive errors (The optical system of the eye, myopia hyperopia, astigmatism, anisometropia, accommodation, .(presbyopia, contact lenses
2	Eye lid disorders (trichiasis, allergic eye lid diseases, eye lid infection - herpes simplex, herpes zoster, benign nodules and cysts, chalazion, stye, marginal blepharitis, malignant tumors - basal cell ,carcinoma, squamous cell carcinoma, melanoma (ectropion, entropion, ptosis
3	Orbital eye disorders (Trauma orbital hemorrhage, blow out fracture, :Infection: orbital cellulitis, preseptal cellulitis, Tumours (rhabdomyo-sarcoma, cavernous hemangioma, thyroid eye disease
4	Conjunctival diseases (Applied anatomy ; bacterial conjunctivitis; viral conjunctivitis; chlamydial conjunctivitis; allergic conjunctivitis; conjunctival degenerations; pigmented conjunctival lesions; non .(pigmented conjunctival tumours
5	Corneal and sclera diseases I (Applied corneal anatomy; bacterial keratitis; fungal keratitis; herpes simplex keratitis; herpes zoster keratitis; corneal abrasion; corneal laceration; corneal foreign .(body; chemical corneal injury; keratoconus
6	Glaucoma (Definition; aqueous pathophysiology; tonometry; gonioscopy; optic nerve assessment; visual field assessment; primary open angle glaucoma; primary narrow angle glaucoma; congenital glaucoma; glaucoma medical therapy; laser in .(glaucoma
7	Retinal detachment (Applied anatomy, rhegmatogenous retinal detachment, tractional retinal detachment, exudative retinal .(detachment, treatment of retinal detachment
8	,Corneal and sclera diseases II (Exposure keratopathy keratoconjunctivitis sicca, keratoplasty, refractive surgical .(procedures, episcleritis, scleritis
9	Retinal vascular diseases I (Diabetic retinopathy, Central retinal vein occlusion, Branch retinal vein occlusion, Amaurosis fugax, Central .(retinal artery occlusion
10	Crystalline lens disorders (Pathogenesis of cataract, causes of .(cataract, types of cataract surgery, congenital cataract, Ectopia lentis
11	,Retinal diseases II (Hypertensive retinopathy, retinitis pigmentosa .(Age related macular degeneration, myopic maculopathy

12	Uveitis (Anatomical classification, clinical classification, etiological ,classification, clinical features, differential diagnosis (complications,treatment, Hyphema
13	Neuroophthalmology I (Optic neuritis, optic atrophy, anterior ischemic optic neuropathy, compressive optic neuropathy, alcohol tobacco .(amblyopia,papilledema
14	Lacrimal diseases (Applied anatomy, congenital nasolacrimal duct .(obstruction, dacryocystitis, canaliculitis
15	Neuroophthalmology II (Oculomotor nerve palsy, Abducent nerve .(palsy, Trochlearnerve palsy, drug induced optic neuropathy
16	,Intraocular tumors (Retinoblastoma, Choroidal melanoma .(Metastatic carcinoma
17	Eye trauma (Terminology of eye trauma, general outlines of treatment, Blunt trauma, anterior segment complications of blunt trauma, posterior ,segment complications of blunt trauma .(Penetrating trauma
18	,Squint (Introduction, infantile esotropia, accommodative esotropia .(exotropia, exophoria, hypertropia, hypotropia
19	Laser in ophthalmology (Properties of laser light, Laser tissue .(interaction, Choice of laser wavelength

Subject	Internal medicine
Theory	90 hrs
Practice	60 hrs
Units	8
No	Title
1	**A. Nephrology**
2	Functional anatomy and physiology
3	Investigation of renal and urinary tract disease
4	,.Glomerular diseases :gn,nephrotic syn
5	Tubulo-interstitial diseases
6	Acute renal failure
7	Chronic renalfailure
8	Renal replacementtherapy
9	Diseases of the lower genitourinary tract
10	Drugs and thekidney
11	Renal involvement in systemic conditions
12	Renal tumours
13	**B. Blooddisease**
14	Functional anatomy and physiology
15	CLINICAL EXAMINATION IN BLOOD DISEASE
16	Investigation of diseases of the blood
17	Blood products and transfusion
18	Anticoagulant and antithrombotic therapy
19	Anaemias
20	Haemoglobinopathies
21	Haematological malignancies
22	Myeloproliferative disorders
23	Bleeding disorders
24	Thrombotic disorders
25	**C. Neurologicaldisease**
26	Functionalanatomy and physiology
27	Investigation of neurological disease
28	Headache syndromes
29	Epilepsy
30	Cerebrovasculardisease
31	Inflammatory diseases
32	Neurodegenerative diseases
33	Infections of the nervous system
34	Intracranial mass and raised intracranial pressure
35	Diseases of peripheral nerves
36	Diseases of the neuromuscular junction
37	Diseases ofmuscle

Subject	Pediatric
Theory	90 hrs
Practice	30
Units	7

No	Title
1	**Diseases of the newborn:** the normal newborn & care, low birth weight, premature)**:** baby, small for gestational age, hyaline membrane disease, post term baby, hypoxic ischemic encephalopathy, neonatal convulsions, neonatal infections, neonatal hyperbilirubinemia (jaundice),and metabolic diseases of newborn, infant of diabetic mother, hypoglycemia, hypocalcemia, hematological disease of newborn, hemorrhagic disease of newborn
2	**Genetic disorders:** basic genetics, inherited disorders, Chromosomal abnormalities, single) gene disorders (Mendelian disorders) , Unusual genetic mechanisms, Interaction of genetic and environmental factors (polygenic, multifactorial, or complex disorders), trisomy 21, 13, 18, Klinefelter syndrome, Turner ,syndrome, and cri du chat (Genetic counseling
3	**Cardiac diseases**: congenital heart diseases: VSD, ASD, PDA, TOF ,) **:** (TGA, heart failure, endocarditis and rheumatic fever)
4	(infectious croup, epiglottitis, bronchiolitis, pneumonia) **:Respiratory diseases**
5	(atopic conditions and asthma) **Atopic disorders**
6	**Diabetes mellitus**
7	**Gastrointestinal disorders:** Electrolytes thera fluid andpy ,gastroenteritis, dehydration) ,GIT of malformation congenital ,ORT trachea- esophageal fistula, pyloric stenosis, and hirshsprung (disease
8	**Renal system disorders** UTI, acute post streptococcal glomerulonephritis, nephrotic) (hemolytic uremic syndrome
9	**Nervous system disorders** convulsions disorders: definition, classifications, clinical t**)** including febrile convulsion, infantile spasm, ptit mal seizu myoclonic seizures. Cerebral palsy, mental (retardation
10	**Hematology and oncology** anemia including iron deficiency anemia, hemoglobinop) membrane defect, leukemia in children, hemorrhagic di including hemophilia, von-willibrand disease (and thrombocytopenia
11	**Poisoning** general measures, salicylate, kerosene, lead, iron and organophosphorus)

Subject	Radiology
Theory	30 hrs
Practice	30 hrs
Units	3
No	Title
1	**1- Introduction:**
2	.Aims & objectives of radiology
3	The imaging.department
4	& Basic principles of X-ray, ultrasound, radio-nuclide imaging, CT .MRI
5	,Indications, limitations, & contraindications of x-ray, ultrasound .radionuclide imaging, CT & MRI
6	.Contrast medium used in radiology
7	.X-ray hazards & radiationprotection
8	**2-Respiratory system I, II, III**
9	.Radiological anatomy of the lungs
10	.Investigations in chest diseases
11	Chest x-ray technique & procedure, interpretation of normal chest .x-ray
12	.Diseases of the chest with normal chest x-ray
13	Radiological signs of lung disease (Silhouette sign, air space filling, ,pulmonary collapse, spherical shadows, cavitation .(calcification, hilar enlargement, line & widespread shadows
14	.Diseases of the pleura
15	.Diseases of the mediastinum
16	,specific lung diseases (pneumonia, Lung abscess, Pulmonary TB Pulmonary Hydatid, Diseases of the airway, Pulmonary embolism, Bronchogenic carcinoma, Pulmonary metastases, Pulmonary lymphoma, ,RDS & ARDS, Chest trauma, Radiation pneumonitis .(Cystic fibrosis
17	.Diseases of the diaphragm
18	**3.The cardio-vascular system I, II**
19	.Investigations of the cardiovascular system
20	,Radiological evidence of heart disease: (Heart size & shape .(evidence of pericardial disease, pulmonary vessels
21	,Specific heart disease (Heart failure, Valvular heart disease .(ischemic heart disease, congenital heart disease
22	.Diseases of the aorta
23	.Dextrocardia
24	**4.Plain abdomen**
25	.General considerations
26	.Normal findings in plain abdominal films
27	,Interpretation of abnormal plain abdominal film: (Bowel dilatation .(Gas outside bowel lumen, Ascitis, Abdominal calcifications

28	**5. Gastro-intestinal tract I, II**
29	.Normal radiographic anatomy
30	Types of contrast study of the GIT
31	.Specific radiological terms in GIT diseases
32	.Diseases of the esophagus
33	.Diseases of the stomach small bowel
34	.Diseases of the large bowel
35	**6-Liver, spleen & pancreas**
36	Normal radiographic anatomy & investigations of hepatobiliary .system
37	.Diseases of the liver & biliary system
38	.Radiological investigations of the spleen
39	.Radiological investigations & diseases of the pancreas
40	**7.Peritoneal cavity & retroperitonium**
41	-Diseases of the peritoneum (ascitis, peritoneal tumors, intra (peritoneal abscesses
42	.Investigations of theretro-peritoneum
43	Diseases of the retro-peritoneum (retro-peritoneal lymphadenopathy, disease of the adrenal gland, retro-peritoneal tumors, aortic aneurysm, retro-peritoneal hematoma, retro- (peritoneal & psoas abscesses
44	**8.Urinary tract I, II**
45	Investigations of the urinary tract
46	.Urinary calculi & Nephrocalcinosis
47	.Urinary tractobstruction
48	,Renal paranchymal masses (simple renal cyst, Angiomyolipioma .(Renal cell carcinoma
49	.Urothelial tumor
50	& Infection (acute & Emphysematous pyelonephritis, Renal perinephric abscess, Pyonephrosis, Renal TB, Chronic .(pyelonephritis
51	.Vesico-ureteric reflux
52	.Renal trauma
53	.Chronic renalfailure
54	.Congenital variation of the urtinary tract
55	Diseases of the UB, diseases of the prostrate, diseases of the .Urethra
56	.Diseases of the Sacrotum & testes
57	**9.Female genital tract**
58	.Investigations & normal radiographic anatomy
59	,Specific diseases of the female genital tract (ovarian masses .(uterine masses, pelvic inflammatory disease, endometriosis
60	.Ultrasound appearance of normal uterine pregnancy
61	.Ectopic pregnancy
62	**10.Breastimaging**

63	.Investigations ofbreast
64	.Normal radiographic anatomy
65	Specific diseases of the breast (simple cyst, fibroadenoma, breast .(carcinoma
66	**11.Radiology of bone diseases I, II, III**
67	Plain radiographic Signs of bone diseases
68	.Classification of bone diseases
69	.Radiological assessment of solitary bone lesion
70	Malignant bone tumors: (Osteosarcoma, Chondrosarcoma, Ewing .(s sarcoma, Giant cell tumor
71	.Benigntumors & tumor like lesion
72	.Bone infection (Osteomeylitis, TB)
73	.Multiple focal bone lesions (bone metastases & multiple myeloma)
74	.Generalized decrease in bone density
75	.Generalized increase in bone density
76	.Acromegally
77	.Radiology of bone trauma
78	**12.Radiology of joint diseases**
79	.Imaging techniquesof joint diseases
80	Plain radiographic Signs of joint diseases
81	.Arthritis (rheumatoid arthritis, osteoarthritis, pyogenic arthritis)
82	.Avascular necrosis
83	**13.Radiology of the spine I, II**
84	Imaging investigations of the spine
85	.Anatomical review
86	.Plain radiographic Signs of spinal abnormality
87	& Specific diseases of the spine: (Metastases, lymphoma Myeloma, spinal infection, spinal trauma, degenerative disc disease, Spinal stenosis, Ankylosing spondylitis, Spinal .(dysraphysim, spinal cord compression
88	**14.Skull & brain I, II**
89	Imaging investigations of the skull & brain
90	.Normal radiographic anatomy of the skull & brain
91	Specific brain disorders: (brain tumors, stroke, infection, multiple .(sclerosis
92	.Radiology of head injury
93	**15.Sinuses, orbit & neck I, II**
94	.Imaging techniques & diseases of the para-nasal sinuses
95	.Imaging techniques & diseases of the orbit
96	.Imaging techniques & diseases of the salivary glands
99	.Imaging techniques & diseases of the thyroid & para-thyroid gland
100	**16.Angiography**
101	.Definition, indications, principles & complications of arteriograpy
102	.Indications of venography
103	Specific vascular disorders (Aneurysms, Atheroma, arterio-venous

	,fistula & malformation, Stenosis & Fibromuscular hyperplasia .(Thrombosis & Embolism, vascular Tumors
104	Interventional radiology
105	.Vascular interventional procetures
106	.Percutaneous needlebiopsy
107	.Percutaneous drainage of abscess & fluid collections
108	.Interventions in urinary obstruction
109	.Interventions in biliary obstruction

Subject	**Psychiatry**
Theory	**60 hrs**
Practice	**30 hrs**
Units	**5**
No	Title
1	History of Psychiatry ,Diagnosis& Classification of Mental Disorders
2	The patient-Doctor Relationship
3	Psychopathology(symptomatology)
4	Schizophrenia Spectrum and Other Psychotic Disorders
5	Depressive Disorders
6	Bipolar & Related Disorders
7	Anxiety Disorders
8	Obsessive-Compulsive and Related Disorders
9	Trauma- and Stressor-Related Disorders
10	Somatic Symptom and Related Disorders
11	Dissociative Disorders
12	Feeding & Eating Disorders
13	Sleep-Wake Disorders
14	Substance-Related and Addictive Disorders
15	Disruptive, Impulse-Control, and Conduct Disorders
16	NeurodevelopmentalDisorders
17	Sexual Dysfunction
18	Paraphilic Disorders
19	Gender Dysphoria
20	Personality Disorders
21	PsychiatricAspects of Medicine

Ministry of Higher Education and Scientific Research

UNIVERSITY OF MISAN

College Of Medicine

Syllabus of Medical College Curriculum

SIXTH YEAR

2020-2021

Number of weeks		Subject
Units	**Weeks**	
12	**12**	**Internal Medicine**
12	**12**	**Surgery**
10	**10**	**Gynecology & obestetrics**
10	**10**	**Pediatrics**
44	**44**	**TOTAL WEEKS**