COURSE INFORMATON					
Course Title	*Code*	*Phase/Semester*	*L+P Hour*	*Credits*	*ECTS*
Basic Medical Sciences II	MED 203	2 / 3-4	601+70	-	53

*ECTS credits are the university credits of the courses in Yeditepe University, Faculty of Medicine, Undergraduate Medical Education Program

Prerequisites	Phase 1/Semester 1-2 MED 104 Introduction to Basic Medical Sciences

Language of Instruction	English
Course Level	Second-cycle higher education (i.e. QF-EHEA-2, EQF-LLL-7, TYYÇ-7) with Master's Degree/ "Regulated Professions" legislation by EU 2005/36/EC Directive
Course Type	Compulsory Professional (Knowledge and Skills: physiopathological processes, pathological processes; introduction to clinical practice-advanced clinical skills)
Course Coordinators	**COORDINATION COMMITTEE** **(TEACHING YEAR 2019 – 2020)** Burcu GEMİCİ BAŞOL, PhD Assoc. Prof. (Coordinator) Deniz KIRAÇ, PhD Assoc. Prof. (Co-Coordinator) Alev CUMBUL, PhD Assist. Prof. (Co-Coordinator) Müge KOPUZ ALVAREZ NOVAL, PhD Assist. Prof. (Co-Coordinator) Sıtkı TIPLAMAZ, MD, Asist. Prof. (Co-Coordinator) Soner DOĞAN, PhD Prof. (Co-Coordinator) **PBL COORDINATION COMMITTEE** Serdar ÖZDEMİR, MD PhD Assist. Prof. (Coordinator) Deniz KIRAÇ, PhD Assoc. Prof. (Co-Coordinator) Güldal İzbırak, Prof. (Co-Coordinator)
Goals	**In evidence based manner,**; 1. ***To*** convey knowledge on biophysical, biological, anatomical, embryological, histological, physiological, biochemical, microbiological and immunological conditions of systems, 2. ***To convey*** introductory information on tissue damage and neoplasis related to systems, 3. ***To convey*** basic knowledge at the introductory level for clinics**,** 4. ***To equip with*** basic clinical skills (interventional or non-interventional) required for the practice of medical profession**,** ***To equip with*** skills for scientific project preparation**.**

Content

Course Components:
COMMITTEE I Cardiovascular System (6 weeks)
COMMITTEE II Respiratory System (6 weeks)
COMMITTEE III Gastrointestinal System (7 weeks)
COMMITTEE IV Nervous System (8 weeks)
COMMITTEE V Endocrine and Urogenital Systems (8 weeks)

For further details please see Academic Program Book of Phase II at
https://med.yeditepe.edu.tr/sites/default/files/phase_ii_apk_program_v2_03.01.2022.pdf

CONTENT of COURSE

Anatomy Department

Lecture	Hour		Committee
	Theoretical	Practical	
Introduction to Cardiovascular System	1		1
Pericardium and Outer Surface of the Heart	1		1
Thoracic Cavity & Mediastinum	2		1
Chambers of the Heart	2		1
Great Vessels of the Heart	1		1
Major Vessels of the Body	1		1
Coronary arteries, Cardiac Veins, and Cardiac Conduction System	2		1
Introduction to Lymphatic System	1		1
Circulation of Lymph	1		1
Pericardium, Outer Surface, Chambers / Coronary Arteries and Cardiac Veins/ Great Vessels Of The Hear		1	1
Fetal Circulation	1		1
Thoracic Wall, Cavity ,Mediastinum/ Great Vessels Of The Body And Lymphatic System		1	1
Introduction to Respiratory System	1		2
Nasal Anatomy and Paranasal Sinuses	1		2
The Pharynx	2		2
The Larynx	2		2
The Trachea	1		2
The Lungs	1		2
Pleura and Diaphragm	2		2
Review of the Respiratory System	1		2
Upper / Lower Respiratory System		1	2
Larynx- Pleura and Diaphragm		1	2
GIT Development	2		3
Oral Cavity	2		3
Esophagus & Stomach	2		3
Duodenum	2		3
Small Intestine	2		3
Large Intestine	2		3
Liver	1		3
Biliary System	1		3
The Pancreas and Spleen	1		3
Peritoneal and Abdominal Cavity	1		3
Abdominal Wall Topographic Anatomy	1		3
Nerves and vasculature of the abdominal cavity	2		3
Review of the Digestive System	2		3
Upper GI system		1	3
Lower GI system / abdominal cavity and peritoneum		1	3

Hepatobiliary system and spleen		1	3
Introduction to Neuroanatomy	1		4
Spinal Cord	2		4
Brainstem	3		4
Cranial Nerves	4		4
Spinal Cord/Brainstem/Cranial Nerves		1	4
Cerebellum	2		4
Diencephalon	3		4
Basal Ganglia	2		4
Cerebellum/ Diencephalon/Basal Ganglia		1	4
Telencephalon	3		4
Limbic System	2		4
Ascending and Descending Pathways of the CNS	2		4
Meninges and Dural Venous Sinuses	2		4
Vasculature of the CNS	2		4
Telencephalon/ Limbic System /CNS Vessels/Dural Sinuses/Meninges/Ventricles		1	4
Eye and Orbit	3		4
Taste and Smell Pathways	2		4
Ear and Auditory Pathways	3		4
Introduction to Autonomic Nervous System	1		4
Sympathetic Nervous System	2		4
Parasympathetic Nervous System	2		4
Skin, its derivatives and the Mammary Glands	1		4
Eye and Orbit		1	4
Ear and Auditory Pathways		1	4
Skin And Mammary Glands/Sympathetic Parasympathetic N.S		1	4
Introduction to Urinary System	1		5
The Kidneys	2		5
Urinary Tracts and Suprarenal Glands	1		5
Introduction to Genital Systems	1		5
Male Genital Organs	2		5
Female Genital Organs	2		5
Nerves of the Pelvis	1		5
Vasculature of the Pelvis	1		5
Endocrine Organs	2		5
Urinary System		1	5
Male Genital Organs		1	5
Perineum and Ischiorectal Fossa	1		5
Review of the Urinary System	1		5
Female Genital Organs		1	5
Nerves and Vasculature of the Pelvis		1	5
Perineum and Ischiorectal Fossa		1	5

Biophysics Department

Lecture	**Hour**		**Committee**
	Theoretical	**Practical**	
Introduction to Bio-electromagnetics:	1		1

Introduction to Bio-electromagnetics: Electric Field	1		1
Introduction to Bio-electromagnetics: Electromagnetic Field	1		1
Bio-electromagnetic Effects on the Heart	1		1
Hemorheology	2		1
Biophysics of Hemodynamics	1		1
Measurements of Different Hemodynamic Parameters	1		1
Principle of Surface Tension, Alveolar Mechanic	2		2
Modeling in Circulatory, Respiratory Systems	2		2
Bio-thermodynamics, Laws of Thermodynamics	1		3
The Zeroth and First Laws of Thermodynamics	1		3
Applications of the First Law to Isothermal, Adiabatic, Isochoric, Isobaric Processes, Enthalpy	2		3
The Second Law of Thermodynamics. Entropy, Free Energy, Boltzmann Distribution (2-Hours)	2		3
Energy Transformation and Distribution in Bio-molecular Systems	2		3
Repetition all of the Materia	2		3
Electrical Activity of Cortex and Evoked Potentials. Neural Coding	2		4
Auditory System Biophysics and Function	1		4
Seeing with Sound: Images from Echoes (Diagnostic Ultrasound Imaging)	1		5
Basics of MRI	2		5

Biostatistics **Department**

Lecture	Hour		Committee
	Theoretical	Practical	
Sampling, Data Collection and Data Processing	1		1
Statistical Decision Theory, Test of Hypothesis and Significance	1		1
Test Hypotheses and Significance in Large Samples	4		2
Test Hypotheses and Significance Chi-Square Test	2		3
Test Hypotheses and Significance- Z-Test	2		3
Test Hypotheses and Significance t-Test	2		4
Correlation	2		4
Linear Regression	2		5
Analysis of Variance and Multiple Comparisons	2		5
Computer Applications of Tests of Significance	0	2	5

Biochemistry **Department**

Lecture	Hour		Committee
	Theoretical	Practical	
Functions of Hemoglobin	2		1
Porphin, Porphyrins, Heme, Hemoglobin, Structure of Hemoglobin	2		1
Synthesis of Hemoglobin, Disorders Concerning Synthesis of Hemoglobin	2		1
Degradation of Hemoglobin	2		1
Blood Coagulation, Primary Hemostasis	1		1
Secondary Hemostasis, Procoagulation, Anticoagulation, Fibrinolysis	1		1
Disorders Concerning Hemoglobin Metabolism	2		1
Peripheral Blood Smear	0	2	1
Digestion and Absorption of Lipids	2		3
Transport of Lipids in Plasma	2		3
Cholesterol Metabolism	2		3
Lipogenesis, Triacylglycerol Synthesis	2		3
Lipolysis	2		3

Oxidation of Fatty Acids	2		3
Ketone Bodies	2		3
Digestion and Absorption of Proteins	2		3
Metabolisms of Individual Amino Acids	2		3
Urea Cycle	2		3
Metabolic Interrelationships and Provision of Tissue Fuels	2		3
Citric Acid Cycle	2		3
Purine and Pyrimidine Metabolism	2		3
Metabolic Interrelationships and Provision of Tissue Fuels	2		3
Xenobiotic Metabolism	2		3
Overview of Metabolism	2		3
Lipid Determination in Blood	0	2	3
Mechanisms of Hormone Actions, Intracellular and Cell Surface Receptors	4		5
Hormones of Hypothalamus and Pituitary	1		5
Thyroid Hormones	1		5
Hormones of Hypothalamus and Pituitary	2		5
Hormones of Adrenal Cortex and Adrenal Medulla	2		5
PTH, Calcitonin, Calcitriol	2		5
Insulin, Glucagon	2		5
Minerals	2		5
Vitamins	2		5
Insulin, Glucagon	2		5
Hormones Regulating Calcium Metabolism	2		5
Urine Analysis	0	2	5

Pharmacology Department

Lecture	Hour		Committee
	Theoretical	Practical	
Scope of Pharmacology and Passage of Drugs Across Membranes	1		4
Drug Distribution	1		4
Drug Metabolism	2		4
Drug Elimination	2		4
Drug Metabolism Practical		1	4
Dopamine and Drugs Effecting Dopaminergic System	1		4
Serotonin and Drugs Effecting Serotonergic System of CNS	1		4
Drug Application Routes and Pharmaceutical Forms of Drugs	1		4
Mechanism of Drug Action	2		5
Post-receptor Events and Second Messengers	1		5
Introduction to Rational Pharmacotherapy	1		5
Eicosanoids	1		5
Introduction to Drug Development	1		5
Development of Biopharmaceuticals	1		5
Pharmacogenetics & Pharmacogenomics	2		5
Drug Toxicity	2		5
Vasoactive Peptides	1		5
Histamine and Antihistamines	1		5
Pharmacology Practice Efficacy and Potency		2	5

Physiology Department

Lecture	Hour		Committee
	Theoretical	Practical	
Functions of Blood	*1*		*1*
Erythrocyte	2		*1*
Leukocytes	1		1
Leukocytes & Lymphocytes	1		1
Regulation of Cardiac Function	2		1
Platelets and Coagulation	2		1
Blood Types and Transfusion Reactions	2		1
Rhythmical Excitation of the Heart	2		1
Hematocrit Determination and Blood Typing & Bleeding Time		2	1
Cardiac Arrhythmias	2		1
Principles of Electrocardiography	1		1
Electrocardiographic Interpretation of Cardiac Abnormalities	1		1
Microcirculation and the Lymphatic System	1		1
Capillary Fluid Exchange, Interstitial Fluid, and Lymph Flow	1		1
Nervous Regulation of the Circulation	2		1

	Principles of Hemodynamics	2		1
	ECG I (Laboratory)		1	1
	Vascular Distensibility and Functions of Arterial and Venous Systems	2		1
	Coronary Circulation	1		1
	Heart Valves and Heart Sounds	2		1
	Circulatory Shock and Physiology of Its Treatment	1		1
	Cardiac Failure	1		1
	Local and Humoral Control of Blood Flow by the Tissues	3		1
	ECG II (Laboratory), Blood Pressure, Heart Sounds		1	1
	Local and Humoral Control of Blood Flow by the Tissues	1		1
	Pulmonary Circulation, Pulmonary Edema, Pleural Fluid	2		2
	Pulmonary Ventilation	2		2
	Diffusion of Blood Gases	2		2
	Transport of Blood Gases	2		2
	Regulation of Respiration	2		2
	Aviation, High-Altitude and Space Physiology	1		2
	Physiology of Deep-Sea Diving and Hyperbaric Conditions	2		2
	Sports Physiology	2		2
	Exercise and Metabolism (Laboratory)		1	2
	Spirometry (Laboratory)		1	2
	Introduction to Pathophysiology of Respiratory System	2		2
	Gastrointestinal Functions	*2*		*3*
	Propulsion and Mixing Movements in the GI Tract	2		3
	Digestion and Absorbtion in the Gastrointestinal Tract	2		3
	Energetics and Metabolic Rate	2		3
	Secretory Functions of the Alimentary Tract	2		3
	Regulation of Feeding and Obesity	2		3
	Body Temperature and Its Regulation	2		3
	Physiology of Gastrointestinal Disorders	2		3
	Liver as Organ	1		3
	Digestive System		2	3
	Organization of Nervous System	*1*		*4*
	Neuron and Neuroglia	1		4
	Synapse and Neurotransmitters	2		4
	Sensory Receptors and pathways	1		4
	Peripheral Nervous System	1		4
	Cutaneous Senses	2		4
	Physiology of Pain	2		4
	Motor Functions of Spinal Cord	2		4
	Reflexes-Electroencephalography		1	4
	Cortical and Brainstem Control of Motor Function	2		4
	Functions of Cerebellum and Basal Ganglia in motor control	2		4
	States of Brain Activity- Sleep and Brain Waves	2		4
	Cerebral Cortex, Intellectual Functions of the Brain	1		4
	Learning and Memory	1		4
	Physiology of Vision	4		4
	Visual Examination		1	4
	Physiology of Hearing	2		4
	Chemical Senses: Taste and Smell	2		4
	Limbic System and the Hypothalamus	2		4
	Autonomic Nervous System	2		4
	Cerebrospinal Fluid and Brain Metabolism	2		4
	Hearing test-Galvanized Skin Response		1	4
	Body Fluids and Functions of Kidneys	*1*		*5*
	Micturition	*1*		*5*
	Urine Formation and Renal Blood Flow	*2*		*5*
	Urine Formation: Tubular Processing	*2*		*5*
	Fluid and Electrolyte Balance	*2*		*5*
	Regulation of Acid-Base Balance	*2*		*5*
	Introduction to Endocrinology	*1*		*5*
	Pituitary Gland and Hypothalamic Control	*1*		*5*
	Posterior Pituitary Hormones	*1*		*5*
	Thyroid Metabolic Hormones	*1*		*5*
	Adrenocortical Hormones	*2*		*5*
	Regulation of Calcium & Phosphate Metabolism and Bone Formation	*4*		*5*
	Insulin, Diabetes Mellitus	*2*		*5*
	Physiology of Growth Hormones	*1*		*5*
	Pineal Gland & Melatonin	*1*		*5*
	Male Reproductive Physiology	*2*		*5*
	Female Reproductive Physiology	*2*		*5*
	Pregnancy and Lactation	*2*		*5*

Fetal and Neonatal Physiology	*1*		*5*
Endocrine Distruptors	*1*		*5*
Dissection & Examination of Endocrine System Laboratory		1	*5*
Glomerular Filtration		*1*	*5*
Metabolic Rate		*1*	*5*

Histology and Embryology Department

LECTURE	**Hour**		**Committee**
	Theoretical	**Practical**	
Histology of Lymph Organs; General Aspect, Thymus and Lymph Node	1		1
Histology of Lymph Organs; Spleen and MALT (Tonsills)	1		1
LAB: Histology of LRS (Thymus, Lymph Node, Spleen, Tonsils)		1	1
Histology of Circulatory Systems; Gn Spec., Arteries	1		1
Histology of Circulatory Systems; Capillaries, Veins & Heart	1		1
Development of Circulatory Systems; Endocardial Tube Formation & Looping	1		1
Development of Circulatory Systems; Septation	1		1
Congenital Heart Anomalies	1		1
Development of Circulatory Systems; Arteries and Anomalies	1		1
Development of Circulatory Systems; Veins and Anomalies	1		1
Development of Head; Splanchocranium, Neurocranium	1		1
Development of Neck; Pharyngeal Arches and Anomalies	1		1
LAB: Histology of CVS (Aort, Heart, Vena Cava, Muscular arteries)		1	1
Histology of The Upper Respiratory Tract	2		2
Histology of The Respiratory Systems; Conducting Part	1		2
Histology of The Respiratory Systems; Respiratory Part	1		2
Development of The Respiratory Systems & Anomalies	2		2
LAB: Histology of RS		1	2
Histology of Upper Gastrointestinal Tract; Oral Cavity	1		3
Histology of Upper Gastrointestinal Tract; Tongue, Salivary Gland	1		3
Histology of Alimentary Canal;Esophagus, Stomach	1		3
LAB: Histology of GIS I (Tongue, Lip, Esophaus, Stomach)		1	3
Histology of Alimentary Canal; Small Intestine	1		3
Histology of Alimentary Canal; Large Intestine & Appendix	1		3
Gland Associated with the Digestive System; Liver	1		3
Gland Associated with the Digestive System; Gall Bladder	1		3
Gland Associated with the Digestive System; Pancreas	1		3
Gland Associated with the Digestive System; APUD System	1		3
Development of Gastrointestinal Tract; Alimentary Canal	2		3
Congenital Anomalies of Gastrointestinal Tract	1		3
LAB: Histology of GIS II (Jejunum, Colon, Salivary Gl, Liver)		1	3
Histology of Central Nervous System; PNS, Meninges and Spinal Chord	2		4
Development of Central Nervous System; Early Stages	1		4
Development of Central Nervous System; Late Stages	1		4
Congenital Anomalies of Nervous System	1		4
Histology of Sensory Organs; Eye; Fibrous and Vascular Coat	1		4
Histology of Sensory Organs; Eye; Nervous Coat and Appendix	1		4
Histology of Sensory Organs; Ear	1		4
Development of Sensory Organs; Eye	1		4
Development of Sensory Organs; Ear	2		4
Histology of Skin and Appendage; Epidermis, Dermis, Appendage	1		4
Development of Skin and Appendage	1		4
LAB: Histology of CNS and Skin		1	4
Histology of Urinary System; Kidney Nephron	1		5
Histology of Urinary System; Excreatory Passage	1		5
Histology of Endocrine System; General Aspect, Hypothalamus, Epiphysis	1		5
Histology of Endocrine System; Hypophysis	1		5
Histology of Endocrine System; Thyroid and Parathyroid and Suprarenal Glands	1		5
Histology of The Male Genital System; Testis	1		5
Histology of The Male Genital System; Excreatory Parts	1		5
Histology of The Female Genital System; Ovaries	1		5
Histology of The Female Genital System; Conducting Part	1		5
Development of Urinary System and Anomalies	1		5
Development of Genital System; General Aspect	1		5
Development of Male Genital System and Anomalies	1		5
Development of Female Genital System and Anomalies	1		5
LAB: Histology of Genital Sys (Testis, vas Defferentes, Ovary, Uterus)		1	5
Prenatal Diagnosis	1		5

Immunology Department

Lecture	Hour		Committee
	Theoretical	Practical	
Leucocyte Circulation and Migration into Tissue Immunology of Heart and Vessels	3	-	1
Infection and Immunity Pulmonary Innate Immune Response Pulmonary Adaptive Immune Response	7	-	2
Mucosal Immunity	2	-	3
Neuroimmunology	2	-	4
Hormones and Immunity	1	-	5

Microbiology Department

Lecture	Hour		Committee
	Theoretical	Practical	
Introduction to Medical Microbiology	*1*		*1*
Sterilization and Disinfection	1		1
Introduction to Mycology	2		1
Systemic Mycoses	1		1
Superficial/Subcutaneous Mycosis	1		1
Diagnostic Methods in Mycology	1		1
Opportunistic Mycoses	2		1
Principles and Procedures of Laboratory Safety/Mycology		1	1
Introduction to Bacteriology	1		2
Bacterial Genetics	1		2
Bacterial Pathogenesis	1		2
Microbiome	1		2
Gram Positive Cocci	3		2
Gram Negative Aerob Bacilli	2		2
Gram Negative Cocci	2		2
Enterobacteriaceae	2		2
Anaerobs	2		2
Mycoplasma-Chlamydia-Rickettsia	2		2
Spirochetes	1		2
Cultivation and identification of bacteria	2		2
Non-fermenters	1		2
Gram Negative Small Non-enteric Bacilli	2		2
Gram Negative Curved Baciili	1		2
Mycobacteria-Actimomycetes- Nocardia	2		2
Bacteriology		1	2
Introduction to Medical Parasitology	1		3
Urogenital and gastrointestinal Protozoa	1		3
Blood and tissue Protozoa	2		3
Cestodes	1		3
Trematodes	1		3
Nematodes	2		3
Opportunistic parasites	1		3
Medical entomology	1		3
Parasitology		1	3
Introduction to Viruses	1		5
Viral Pathogenesis/ Oncogenesis	1		5
DNA Viruses	5		5
RNA Viruses	4		5
Diagnostic Methods in Virology	1		5
Specific Viruses	1		5
Viral Oncogenesis	1		5
Prions	1		5
Vaccines	1		5
Virology		1	5

Pathology Deparment

Lecture	Hour	Committee

	Theoretical	Practical	
Introduction to Pathology	*1*		*1*
Adaptations	2		1
Ischemia and Infarction	2		1
Hyperemia & Congestion	2		1
Cellular Injury and Necrosis	2		2
Hemodynamics	2		2
Hemorrhage and Thrombosis	2		2
Injury by Endogenous Substances	1		2
Injury by Toxic Substances and Pneumoconiosis	2		2
Inflammation	1		4
Wound Healing	1		4
Acute inflammation	2		4
Chronic Inflammation	2		4
Introduction to Neoplasia and Biologic Behaviors of Neoplasm	2		5
Histogenesis and Nomenclature	2		5
Oncogenesis, Incidence and Distribution of Cancer	2		5
Tissue Damage by Eating Disorders and Diabetes Mellitus (Bu ders ekindeki değişiklik formunda Autopsy olarak önerilmiştir)	1		5
Inflammation and Neoplasia		1	

Medical Biology Department

Lecture	Hour		Committee
	Theoretical	Practical	
Oxygen, Oxidative Stress, NO, Redox Disequilibrium in the Failing Heart and Cardiovascular System	2		1
Biological Basis of Cardiovascular Diseases; Death Begets Failure in the Heart	2		1
Interrelationship of Biology of Major Organs	4		3
Nutrigenomics	2		3
Biology of Nervous System	4		4
Biology and Sexual Differentiation and Development	4		5
Biology of Endocrine System	2		5

Medical Genetics Department

Lecture	Hour		Committee
	Theoretical	Practical	
Introduction to Medical Genetics	2		2
Patterns of Single Gene Inheritance	2		2
The Human Genome and Chromosomal Basis of Heredity	1		2
Cytogenetics and Chromosomal Disorders	1		2
Developmental Genetics and Birth Defects	2		2
Cancer Genetics and Genomics	2		2
The Human Genome and Chromosomal Basis of Heredity	1		2
Cytogenetics and Chromosomal Disorders	1		2
Molecular Basis of Genetic Diseases	1		2
Tools of Human Molecular Genetics	1		2
Treatment of Genetic Disease -Introduction to Gene Therapy	2		2
Genetics of Complex Diseases	2		2

Scientific Research and Project Course-II

Lecture	Hour		Committee
	Theoretical	Practical	
Presentation of Scientific Research	*2*		*1*
Scientific Presenation		*3*	*1*
Scientific Presenation		*3*	*2*
Scientific Presenation		*3*	*3*
Scientific Presenation		*3*	*4*
Scientific Presenation		*3*	*5*

Problem Based Learning

Lecture	Hour		Committee
	Theoretical	Practical	
PBL Scenario	*6*		*1*
PBL Scenario	*6*		*2*
PBL Scenario	*6*		*3*
PBL Scenario	*6*		*4*
PBL Scenario	*6*		*5*

Course Learning Outcomes	Program Outcomes	Teaching Methods	Assessment Methods
1.0. ***explain*** basic medical knowledge for cardiovascular system, respiratory system, circulation, hemodynamics, urogenital system, gastrointestinal system, nervous system, endocrine system, immune system and immunologic response, biostatistics subjects***.***	1	1, 6	A
2.0. ***explain*** the operational principles, interactions and relation of the systems in the body***.***	1	1, 6	A
3.0. of clinical conditions; 3.1. ***explain*** mechanisms of damages formed at molecular, cell, tissue, organ, system and multi-system level*,* 3.2. ***describe*** the structural changes caused*,* 3.3. ***list*** developmental progress in time.	1	1, 6	A
4.0. Among factors that pose risk -to individual and community health; 4.1. ***list*** biological agents*,* 4.2. ***explain*** their mechanisms of action and outcomes***.***	1	1, 6	A
5.0. ***explain*** basic principles of evidence-based medicine applications***.***	1	1, 6	A
6.0. ***describe*** writing, reporting, presentation and submission to publication phases of a research project***.***	1	1, 6	A

Teaching/Learning Methods:	**CONTACT HOURS (CH)** 1. Theoretical-Class/Auditorium/Conference Hall/Multimedia 1.1. Lecture/Tutorial 1.2. Case report 1.3. Case presentation 1.4. Research seminar 1.5. Seminar 1.6. Student seminar/Journal club 1.7. Invited speaker 1.8. Hospital conference 1.9. Online/Distance or e-learning (paper based or ICT based) 1.10.Other: 2. Theoretical-Group Activity/Interactive 2.1. Case discussion 2.2. Discussion class 2.3. Small group studysession/Problem solving session/Brainstorm session 2.4. Exercise class 2.5. Oral presentation and criticism 2.6. Panel 2.7. Workshop 2.8. Online/Distance or e-learning (paper based or ICT based) 2.9. Other: 3. Practice Based-Laboratory/Class 3.1. Demonstration class 3.2. Laboratory teaching 3.3. Clinical skills laboratory 3.4. Small group studysession/Problem solving session 3.5. Exercise class 3.6. Workshop (practical class) 3.7. Other: 4. Clerkship (Clinical practice and training) 4.1. Field study/Fieldwork 4.2. Outpatient clinic 4.3. Patient bedside 4.4. Imaging round 4.5. Laboratory round 4.6. Work based practice 4.7. Grand round 4.8. Operating room 4.9. Invasive Intervention room 4.10.Night shift at ward 4.11.Night shift at intensive care unit 4.12.Night shift at emergency care unit 4.13.Other: 5. Work placement/Internship (Clinical performance under supervision) 5.1. Field study/Fieldwork 5.2. Outpatient clinic 5.3. Patient bedside 5.4. Imaging round 5.5. Laboratory round 5.6. Work based practice 5.7. Grand round 5.8. Operating room 5.9. Invasive intervention room 5.10.Night shift at ward 5.11.Night shift at intensive care unit 5.12.Night shift at emergency care unit 5.13.Other: ● **INDEPENDENT STUDY HOURS (ISH)** 6. KNOWLEDGE (Levels: Knowledge, Comprehension, Application, Analysis, Synthesis, Evaluation) 6.1. Theoretical/Written/Oral exam/s 6.2. Presentation 6.3. Seminar 6.4. Discussion 6.5. Session 6.6. Research paper writing 6.7. Project writing 6.8. Report writing 6.9. Dissertation writing 6.10.Homework

	6.11.Investigation/Survey study 6.12.Other: 7. SKILLS: (Levels: Imitation, Manipulation, Precision, Articulation, Naturalization) 7.1. Oral/practical exam/s 7.2. Presentation 7.3. Seminar 7.4. Discussion 7.5. Session 7.6. Exercise 7.7. Workshop 7.8. Imaging round 7.9. Laboratory round 7.10.Grand round 7.11.Other: 8. ATTITUDES (Receiving, Responding, Valuing, Organization, Characterization) 8.1. Questionnaire (self-assessment) 8.2. Paper case 8.3. Other: 9. COMPETENCY (Doing/Making, Co-ordinating/Operating, Observing/Analysing/Listening to/ Controlling/Driving, Choosing/Communicating/Enhancing, Conceiving/Visioning/Foreseeing) 9.1. Portfolio preparation 9.2. Clinical performance at outpatient wards 9.3. Clinical performance at inpatient wards 9.4. Clinical performance at night shifts (ward, emergency care unit, intensive care unit) 9.5. Other: (e.g. mini-clinical exam, etc.) 10. PROFICIENCY (Doing/Making, Co-ordinating/Operating, Observing/Analysing/Listening to/ Controlling/Driving, Choosing/Communicating/Enhancing, Conceiving/Visioning/Foreseeing) 10.1.Portfolio preparation 10.2.Clinical performance at outpatient wards 10.3.Clinical performance at inpatient wards 10.4.Clinical performance at night shifts (ward, emergency care unit, intensive care unit) 10.5.Other: (e.g. mini-clinical exam, etc.)
Assessment Methods:	A. Knowledge Assessment a. Written Exam (MCQ+EMQ+KFQ) (F, S) b. Objectively Structured Oral Examination (S) c. Oral Examination (F) d. Other: B. Skills Assessment a. Practical Examination (F) b. Objectively Structured Practical Examination (S) c. Mini Clinical Examination (S) d. Other: C. Attitude Assessment a. Mini Clinical Examination (S) b. Questionnaire (self-assessment) (F) c. Paper case (S) d. Observation of behaviour (360º) (F, S) e. Other: D. Competency Assessment a. Mini Clinical Examination (S) b. Clerkship/Internship Guide/Checklist Assessment (F, S) c. Professional Portfolio Assessment (F) d. Presentation Performance Assessment (F) e. Seminar Performance Assessment (F) f. Project Writing Assessment (S) g. Other: E. Proficiency Assessment a. Mini Clinical Examination (S) b. Clerkship/Internship Guide/Checklist Assessment (F, S) c. Professional Portfolio Assessment (F) d. Presentation Performance Assessment (F) e. Seminar Performance Assessment (F) f. Other: *F: Formative, S: Summative

COURSE CONTENT		
Week	**Topics**	**Study Materials**
1-5	Committee I: Cardiovascular System	Textbooks, Lecture presentations, Course notes, Checklists, Laboratory Practice Manuals, Videos, Specifically designed phantoms, Medical and laboratory devices, Medical and non-medical consumables, Practice materials
6	Committee Exam	
7-11	Committee II: Respiratory System	Textbooks, Lecture presentations, Course notes, Checklists, Laboratory Practice Manuals, Videos, Specifically designed phantoms, Medical and laboratory devices, Medical and non-medical consumables, Practice materials
12	Committee Exam	
13-18	Committee III: Gastrointestinal System	Textbooks, Lecture presentations, Course notes, Checklists, Laboratory Practice Manuals, Videos, Specifically designed phantoms, Medical and laboratory devices, Medical and non-medical consumables, Practice materials
19-21	Committee Exam-Mid Term Break	
22-28	Committee IV : Nervous System	Textbooks, Lecture presentations, Course notes, Checklists, Laboratory Practice Manuals, Videos, Specifically designed phantoms, Medical and laboratory devices, Medical and non-medical consumables, Practice materials
29	Committee Exam	
30-37	Committee V: Endocrine and Urogenital Systems	Textbooks, Lecture presentations, Course notes, Checklists, Laboratory Practice Manuals, Videos, Specifically designed phantoms, Medical and laboratory devices, Medical and non-medical consumables, Practice materials
38	Committee Exam	
41	Makeup Exam	
43	Final Exam	
46	Incomplete Exam	

RECOMMENDED SOURCES	
Textbooks	● Guyton and Hall - Textbook of Medical Physiology ● Glantz, Stanton "A Primer of Biostatistics" McGrow-Hill , NewYork, 2002 ● Armitage, P., " Statistical Methods in Medical Research" Blackwell Science, Oxford,2002 ● B. G. Katzung: Basic and Clinical Pharmacology, 12th ed. McGraw-Hill Companies, New York, 2012. ● Goodman&Gilman's The Pharmacologic Basis of Therapeutics, 12th ed.McGraw Hill Medical, 2011
Additional Resources	● Each instructor will provide her/his notes to the students

MATERIAL SHARING	
Documents	Textbooks, Lecture presentations, Course notes, Checklists, Laboratory Practice Manuals, Videos
Assignments	
Exams	After the exam; exam questions, question discussions, individual performance analysis reports

ASSESSMENTS

Assessments table will be made with consideration of each learning objective for each committee and will be announced and explained in introductory lectures at the beginning of each committee.

EXAMINATION MATRIX
MED 203 Basic Medical Sciences II

Committee Exams : WE + OSPE Written Exam:

Number of Questions 100

Question Type : Multiple Choice Questions*

Committee Score (CS)= 95% of [90% CE (MCQ) + 10% (LPE)] + 5% of

PBL-P

Final Exam : WE

Number of Questions 200

Question Type : Multiple Choice Questions*

The mean of committee examinations and the final examination will form 60% and 40% of the end of the year grade, respectively.

Incomplete Exam : WE

Number of Questions : 100 - 200

Question Type : Multiple Choice Questions*

MCQ: Multiple Choice Questions

EMQ: Extended Matching Questions OSPE: Objective Structured Practical Exam WE: Written Examination (WE)

SRPC: Scientific Research and Publication Course

*Percentage that will be reflected in total points of written exam does not comply with the exact number of questions.

Term Score (Pass of Fail) Calculations***

Term Score=((60% of CE Average) + (40% of Final Exam Score or Incomplete Exam Score))%97+(SRPC 3%)

Pass; *TS ≥ 60*

Fail; *FES* ***< 50*** *(barrier point), ICES* ***< 50*** *(barrier point), or/and TS* ***< 60***

The student is exempted from FE, if the CMS is ≥ 80 and all CSs are ≥ 60

The FE and ICE barrier point is not applied to the students whose all CSs are ≥ 60

The distribution of questions in the question distribution tables in all exams could be changed by the coordinators.

COURSE CATEGORY
Professional (Knowledge and Skills: physiopathological processes, pathological processes; introduction to clinical practice-advanced clinical skills)

COURSE'S CONTRIBUTION TO PROGRAM					
Program Learning Outcomes (APK)	Contribution				
	1	**2**	**3**	**4**	**5**
1.1.		X			
1.5.			X		
2.1.		X			
2.2.			X		
2.3.		X			
2.4.		X			
2.5		X			

ECTS CREDITS **MED 203 Basic Medical Sciences II**			
ACTIVITIES	#	Time (hour)	Workload (hour)
Lectures	601	1	601
Laboratory Practices	70	1	70
Scientific presentation	1	15	15
Independent Study for Mid-term Exam	445	1	445
Mid-term Exam (MCQ+OSPE)	9	2	18
Independent Study for Final Exam	445	1	445
Final Exam (MCQ)	1	4	4
Total Workload per Course			1598
ECTS Credits per Course			53,26