

***SCHEDULE
of
PHASE I***

PHASE I

PHASE I	
FALL SEMESTER	SPRING SEMESTER
BIostatISTICS	BIostatISTICS
BASIC MEDICAL BIOLOGY	BASIC MEDICAL GENETICS
ANATOMY	BIOCHEMISTRY
MEDICAL ORGANIC CHEMISTRY	ANATOMY
GENERAL HISTOLOGY and EMBRYOLOGY	PHYSIOLOGY
MEDICAL PHYSICS	INTRODUCTION TO CLINICAL SKILLS PROGRAM
FIRST AID	ANATOMICAL DRAWING
ANATOMICAL DRAWING	MEDICAL DEONTOLOGY and ETHICS
INFORMATICS IN HEALTH SCIENCES	GENERAL HISTOLOGY and EMBRYOLOGY
BEHAVIORAL SCIENCE	ATATURK'S PRINCIPLES and HISTORY OF MODERN TURKEY
HISTORY OF MEDICINE	TURKISH LANGUAGE and LITERATURE
ATATURK'S PRINCIPLES and HISTORY OF MODERN TURKEY	HUMANITIES
TURKISH LANGUAGE and LITERATURE	
HUMANITIES	

PHASE I

COURSES with CREDITS

PHASE I / Fall Semester

COURSES	THEORETICAL	PRACTICAL	CREDITS
MDM 101 BIOSTATISTICS	2	-	2
MDM 115 BASIC MEDICAL BIOLOGY	2	-	2
MDM 130 MEDICAL ORGANIC CHEMISTRY	2	-	2
MDM 120 ANATOMY	1	2	2
MDM 160 MEDICAL PHYSICS	2	-	2
MDM 150 GENERAL HISTOLOGY and EMBRYOLOGY	1	-	1
MDM 140 FIRST AID	2	-	2
MDM 181 ANATOMICAL DRAWING	2	-	2
PSY 110 BEHAVIORAL SCIENCE	2	-	2
MDM 155 HISTORY OF MEDICINE	2	-	2
MDM 110 INFORMATICS IN HEALTH SCIENCES	-	2	1
HTR 301 ATATURK'S PRINCIPLES and HISTORY OF MODERN TURKEY	2	-	-
TKR 201 TURKISH LANGUAGE AND LITERATURE	2	-	-
HUM 101 HUMANITIES I	3	-	3

TOTAL CREDITS

23

PHASE I

COURSES with CREDITS

PHASE I / Spring semester

COURSES	THEORETICAL	PRACTICAL	CREDITS
MDM 102 BIOSTATISTICS	2	-	2
MDM 125 BASIC MEDICAL GENETICS	2	-	2
MDM 122 BIOCHEMISTRY	3	-	3
MDM 104 ANATOMY	4	2	5
MDM 103 PHYSIOLOGY	3	2	4
MDM 182 ANATOMICAL DRAWING	2	-	2
MDM 255 MEDICAL DEONTOLOGY and ETHICS	2	-	2
MDM 151 GENERAL HISTOLOGY and EMBRYOLOGY	2	2	3
MDM 142 INTRODUCTION TO CLINICAL SKILLS PROGRAM	-	2	1
HTR 301 ATATURK'S PRINCIPLES and HISTORY of MODERN TURKEY	2	-	-
TKR 201 TURKISH LANGUAGE and LITERATURE	2	-	-
HUM 102 HUMANITIES II	3	-	3

TOTAL CREDITS 27

FALL SEMESTER WEEKLY COURSE SCHEDULE

	09:00-09:50	10:00-10:50	11:00-11:50	12:00-12:50	13:00-13:50	14:00-14:50	15:00-15:50	16:00-16:50	17:00-17:50
MONDAY	Biostatistics MDM101 (T)	Biostatistics MDM101 (T)	Basic Medical Biology MDM115	Basic Medical Biology MDM115		Informatics in Health Sciences MDM110	Informatics in Health Sciences MDM110	Humanities HUM101	
TUESDAY	First Aid MDM140 (T)	First Aid MDM140 (T)	Medical Physics MDM160 (T)	Medical Physics MDM160 (T)		Atatürk's Principles and History of Modern Turkey HTR301	Atatürk's Principles and History of Modern Turkey HTR301		
WEDNESDAY	Anatomy MDM120 (T)	Anatomy MDM120 (P)	Anatomy MDM120 (P)			General Histology and Embryology MDM150 (T)			
THURSDAY	Medical Organic Chemistry MDM130	Medical Organic Chemistry MDM130	Turkish Language and Literature TKL201	Turkish Language and Literature TKL201		Anatomical Drawing MDM181	Anatomical Drawing MDM181		
FRIDAY	Humanities HUM101	Humanities HUM101	Behavioral Science PSY110 (Section 1)	Behavioral Science PSY110 (Section 1)		History of MEDICINE MDM 155 (T)	History of MEDICINE MDM 155 (T)	Behavioral Science PSY110 (Section 2)	Behavioral Science PSY110 (Section 2)

SPRING SEMESTER WEEKLY COURSE SCHEDULE

	09:00-09:50	10:00-10:50	11:00-11:50	12:00-12:50	13:00-13:50	14:00-14:50	15:00-15:50	16:00-16:50	17:00-17:50
MONDAY	Biostatistics MDM102 (T)	Biostatistics MDM102 (T)	Biochemistry MDM122 (T)		Physiology MDM103 (T)	Physiology MDM103 (T)	Physiology MDM103 (T)	Humanities HUM102	
TUESDAY	Biochemistry MDM122 (T)	Biochemistry MDM122 (T)	Basic Medical Genetics MDM125 (T)	Basic Medical Genetics MDM125 (T)		Anatomy MDM104 (T)	Anatomy MDM104 (T)	Anatomy MDM104 (T)	
WEDNESDAY					Introduction to Clinical Skills Programme MDM142 (P)	Introduction to Clinical Skills Programme MDM142 (P)		Anatomy MDM104 (P)	Anatomy MDM104 (P)
THURSDAY	Anatomical Drawing MDM182	Anatomical Drawing MDM182	General Histology and Embryology MDM151 (T)	General Histology and Embryology MDM151 (T)		Physiology MDM103 (P)	Physiology MDM103 (P)		
						General Histology and Embryology MDM151 (P)	General Histology and Embryology MDM151 (P)		
FRIDAY	Turkish Language and Literature TKL202	Turkish Language and Literature TKL202	Atatürk's Principles and History of Modern Turkey HTR 302	Atatürk's Principles and History of Modern Turkey HTR 302		Medical Deontology and Ethics MDM255 (T)	Medical Deontology and Ethics MDM255 (T)	Humanities HUM102	Humanities HUM102

GENERAL HISTOLOGY & EMBRYOLOGY

THEORETICAL:

Methods of study for cellular structures in histology
Microscopic tools and types of microscopes
Organelles and inclusions at LM and EM levels
Nucleus and cell division
Introduction to Embryology and Gametogenesis; Spermatogenesis
Gametogenesis; Oogenesis
Histology of Lining or Covering Epithelium
Histology of Glandular Epithelium
Histology of Connective tissue
Histology of Cartilage tissue
Histology of Bone tissue
Histology of Muscle tissue
Histology of Nervous tissue
Histology of Skin and Appendage
Week I; Fertilization
Week II: Bilaminar Embryo to Implantation
Week III: Gastrulation
Week III; Neurulation
Week IV; Folding Embryo or Body Forming
Formation of Basic Organs and Fetal Period
Congenital Malformations
Extraembryonic Structures and Delivery
Head and Face Development
Limb Development

PRACTICAL:

Organelles and inclusions at LM and EM levels
Nucleus and cell division
Histology of Lining or Covering Epithelium
Histology of Glandular Epithelium
Histology of Connective tissue
Histology of Cartilage tissue
Histology of Bone tissue
Histology of Muscle tissue
Histology of Nervous tissue
Histology of Skin and Appendage

BIOCHEMISTRY

THEORETICAL:

Cell structure and function

Biomolecules:

Carbohydrates

Monosaccharides (Classification, Stereoisomerism, Hemiacetal and hemiketal forms, Important derivatives)

Oligosaccharides

Disaccharides (lactose, sucrose, maltose, cellobiose)

Polysaccharides

Homopolysaccharides

Starch and Glycogen

Heteropolysaccharides (Glycosaminoglycans)

Hyaluronic acid, Chondroitin sulphate, Dermatan sulphate, keratan sulphate, Heparin

Glycoconjugates

Mediation of Biological Processes by Oligosaccharide-Lectin Interactions

Lipids

Fatty acids (Saturated, unsaturated)

Triacylglycerols

Phospholipids

Glycolipids

Isoprene derivatives

Steroids (Cholesterol and bile acids)

Eicosanoids

Proteins

Amino acids (Classification, Nonstandard amino acids, Nonprotein amino acids, Isoelectric point and electrophoresis)

Some peptides (Glutathione, its structure and functions)

Primary, Secondary, Tertiary and Quaternary structures of Proteins

Plasma proteins

Nucleic acids and nucleotides

Structure of DNA and RNA, their functions

Some important nucleotides as cofactors

Enzymes (Structures, Kinetics of enzymatic reactions, Inhibitions of enzymatic reactions, Effects of some parameters on enzymatic reactions)

Regulatory enzymes (Types, Principles of their catalytic actions, examples to these enzymes)

Oxidoreductases, Transferases, Hydrolases, Lyases, Isomerases, Ligases

(Mechanisms of their actions, and examples to each of these enzyme classes)

Oxidative phosphorylation

Structure of mitochondria in relation with Oxidative phosphorylation

Structures and functions of Complexes I-IV

ATP synthesis (Chemiosmotic theory)

Biological membranes and transport

Molecular constituents of membranes and their organisation in the membrane

Motion of membrane lipids and proteins

Peripheral and integral proteins of the membranes

Transport across the membranes

Passive transport

Active primary and secondary transport (mechanisms of these transports and basic examples)

ATPases (Types, structure, functions)

BIOSTATISTICS

THEORETICAL:

Main concepts in biostatistics

Statistics

Population and sample

Descriptive and inductive statistics

Variable and graphs

Frequency distributions

Raw Data

Arrays and frequency distribution

Common arrays

Sorted arrays

Grouped arrays

Class intervals and class limits

The size or width of a class interval

Types of frequency curves

Measures of central tendency

Averages and measures of central tendency

The arithmetic mean

Weighted arithmetic mean

Geometric mean

Harmonic mean

Root mean square

Median

Mod

Measures of central dispersion

The mean deviation

The Standard deviation

The variance

Moments, Skewness and Kurtosis

Elementary probability theory

Classical definition of probability

Independent and dependent events

Discrete and continues probability distribution

Relation between population and sample mean and variance

Distributions

Discrete probability distribution

Binomial probability distribution

Poisson probability distribution

The normal probability distribution

Elementary sampling theory

Simple random sample

Systematic Random Sampling

Stratified Random Sampling

Cluster Sampling

Statistical decision theory, test of hypotheses and significance

Tests of hypotheses and significance

Level of significance

Tests involving the normal distribution

Tests involving the binomial distribution

Test of hypotheses in large samples

- Testing for the population mean
- Testing for two population means
- Tests concerning proportions
- Test of hypotheses in small samples
 - Characteristics of Student t distribution
 - A test for the population mean
 - Comparing two independent population means
 - Hypothesis testing dependent samples
- Analysis of variance
 - The F distribution
 - Comparing two population variance
 - The ANOVA test
- Nonparametric Methods
 - The Chi – square test
 - Analysis of ranked data
- Linear Regression and Correlation
 - The coefficient of correlation
 - Testing the significance of the correlation coefficient
 - Regression analysis
- Multiple regression and correlation analysis
 - Multiple regression analysis
 - Evaluating the regression equation

MEDICAL ORGANIC CHEMISTRY

THEORETICAL:

- Structure and Bonding
- Polar Covalent Bonds: Acids and Bases
- Organic Compounds: Alkanes, Cycloalkanes, Alkenes, Alkynes: Reactions and Synthesis
- Receptors, Receptor types, qualitative receptor-drug relationships
- An Overview of Organic Reactions
- Stereochemistry, stereoisomery
- Alkyl Halides, Nucleophilic substitutions and eliminations
- Aromaticity in drug molecules
- Electrophilic aromatic Substitution
- Alcohols and Phenols, usage in medical material and sterility
- Drugs containing functional groups
- Biomolecules: Carbohydrates
- Biomolecules: Amino Acids, Peptides, and Proteins
- Biomolecules: Lipids
- Biomolecules: Heterocycles and Nucleic Acids
- The organic chemistry of metabolic pathways
- Synthetic Polymers
- Pharmaceutical phase and relations with organic chemistry
- Pharmacodynamic phase and relations with organic chemistry
- Pharmakokinetic phase and and relations with organic chemistry

BASIC MEDICAL BIOLOGY

THEORETICAL

- From molecules to multicellular organism
- Cell structure and function
- Nucleic acids, DNA and genes
- The life cycle of a somatic cell

DNA replication
DNA repair
Copying DNA to RNA
Decoding mRNA to protein
The human chromosomes
Mitosis
Meiosis and genetic recombination
Molecular biology of cancer
Human gametogenesis and fertilization

PHYSIOLOGY

THEORETICAL:

Homeostasis; Bioelectric potentials
Transport of substances; Intercellular communication
Cell-to-cell adhesions; Signal transduction
Body fluids; Functional structures of heart and peripheral circulation
Capillary fluid exchange; Pathophysiology of edema formation
Smooth muscle; Aging
Skeletal muscle and exercise physiology
Composition and function of blood
Neuromuscular transmission
Peripheral nervous system, neurotransmitters
Synapses and neuronal integration
Spinal reflexes
Autonomic nervous system; General principles of renal physiology
Functional structures of the digestive system

PRACTICAL:

Cell Physiology
Muscle and exercise physiology
Blood
Neuromuscular control: Claude Bernard experiment
Spinal reflexes

ANATOMY

MUSCULOSKELETAL SYSTEM

THEORETICAL:

Introduction to anatomy
Terminology
Bones and joints; general considerations, Upper extremity bones
Cranial bones; neurocranium
Cranial bones; splanchnocranium
Exterior and interior aspects of the skull
[General characteristics of a vertebra](#)
Vertebral column
Thorax
Lower extremity bones

Skeleton of pelvis

[Classification of joints](#)

Joints of the upper extremity

Joints of the trunk

Joints of the lower extremity

Radiology of extremities

Muscles; general considerations

Anterior and lateral neck

Suboccipital region and deep muscles of the back

Superficial structures of the face

Infratemporal and pterygopalatine fossa

Superficial back and posterior aspect of the shoulder

Anterior aspect of the arm

Pectoral region, mammary glands

Anterior aspect of forearm and cubital fossa

Posterior aspect of forearm

Hand and wrist joint

Brachial plexus and axillary region

Posterior abdominal wall and lumbar plexus and sacral plexus

Gluteal region and hip region

Posterior aspect of the thigh and knee joint

Anterior and medial aspect of thigh

Anterior and lateral leg

Posterior leg and popliteal fossa

The foot

PRACTICAL:

Upper extremity bones

Cranial bones

neurocranium

Cranial bones

splanchnocranium

Exterior and interior aspects of the skull

Vertebral column

Thorax

Lower extremity bones

Skeleton of pelvis

Joints of the upper extremity

Joints of the trunk

Joints of the lower extremity

Anterior and lateral neck

Suboccipital region and deep muscles of the back

Superficial structures of the face

Infratemporal and pterygopalatine fossa

Superficial back and posterior aspect of the shoulder

Anterior aspect of the arm

Pectoral region

mammary glands

Anterior aspect of forearm and cubital fossa

Posterior aspect of forearm

Hand and wrist joint

Brachial plexus and axillary region

PHASE I

Posterior abdominal wall and lumbar plexus and sacral plexus
Gluteal region and hip region
Posterior aspect of the thigh and knee joint
Anterior and medial aspect of thigh
Anterior and lateral leg
Posterior leg and popliteal fossa
The foot

FIRST AID

THEORETICAL:

Introduction to the First Aid Programmes
Scene Assessment/ Basic life support
Assessment of traumatized patient
Burns, Freezing, Frostbite/Shock and bleeding control
Fractures and dislocation
The unconscious Casualty
Animal and insect bite/Poisoning
Foreign objects in the eye,nose,ear/ Drowning

PRACTICAL

Basic life support Lab Group 1
Basic life support Lab Group 2
Basic life support Lab Group 3
Basic life support Lab Group 4

INTRODUCTION TO CLINICAL SKILLS PROGRAMME

THEORETICAL

Hand Washing
Wearing Steril Gloves
Vital Signs

PRACTICAL

Hand Washing Group / Wearing Steril Gloves Group 1
Hand Washing Group / Wearing Steril Gloves Group 2
Hand Washing Group/ Wearing Steril Gloves Group 3
Hand Washing Group / Wearing Steril Gloves Group 4

Vital Signs Group 1
Vital Signs Group 2
Vital Signs Group 3
Vital Signs Group 4

ANATOMICAL DRAWING

THEORETICAL:

The head
Anterior view of the skull
Side view of the skull
The arms
The bones of the left – right
hand seen from the anterior face (the palm)
The hands
The bones of the left – right
hand seen from the anterior face (the palm)
The legs
Anterior view of the bones of the right leg
Posterior view of the bones of the right leg
The feet bones
The torso
Anterior view of the bones of the torso
The torso
Rear view of the bones of the torso
The spinal column
Rear view of the spinal column
The skelet
Frontal view of the Skeleton
The skelet
Rear view of the Skeleton
The skelet
Lateral view
The muscles
Muscle structure outer
Muscles frontal view of human body
Full figure
The muscles
Muscle structure outer muscles rear view of human body
Full figure

INFORMATICS IN HEALTH SCIENCES

PRACTICAL

Information processing and computers
Hard ware of computers
Soft ware of computers
Programming
Algorithms
Operating systems of computers
Office programs
Internet programs
Informatic systems in health sciences
Hospital information systems
Pharmcy information systems
Patient care information systems

Public health information systems
Occupational health information systems
TeleMEDICINE

BEHAVIORAL SCIENCE

THEORETICAL:

Introduction to Psychology and Behavioral Science
Discovering psychology and behavioral science
History of psychology
States of Consciousness
Consciousness, sleep, and dreams
Hypnosis and drugs
Memory
Kinds of memory
Remembering and forgetting
The Biopsychosocial Model of Understanding Behavior in Health and Illness
Case studies and formulations
The Physician-Patient Relationship
Developing the necessary skills to the psychological and emotional needs of patients
Stress responses and treatment strategies
Emotion, motivation
Culture defines normality, disease, and health
Major Psychological Theories of Human Behavior
Psychoanalytic psychology
Behavioral psychology
Social learning theory
Humanistic theory
Cross-cultural approach, Multiple Theories of Childhood and Adolescent Development Piaget's cognitive development Adult and Later-Life Development
Erik Erikson's model of human development
The Psychology of Developmental Trauma
Behavioral Genetics
A synthesis of the Biopsychosocial Approach in Medical Care

MEDICAL PHYSICS

THEORETICAL:

Introduction to Biological and Medical Physics
Physical Measurements, scalar and vector
Unit Standards
Mechanics and Biomechanics
Biomaterials
Electricity
Electrical, Magnetic and Electromagnetic Fields
Bioelectronics
Biological Effects of Electromagnetic Fields
Electrical Security Systems in Medical Applications

HISTORY OF MEDICINE

THEORETICAL:

Introduction to Medical History
Prehistoric medicine, Primitive medicine
Medicine in Mesopotamia
Medicine in Ancient Anatolia
Medicine in Ancient Egypt
Medicine in Ancient India
Medicine in Ancient China
Ancient Greek medicine
Roman medicine
Medicine in Middle ages (Western World)
Epidemics during middle ages
Medicine in Middle ages (Islamic World)
Avicenna, Razez
Medicine during Renaissance
Vesalius and reform in Anatomy
Medicine during 17th century (age of Measurement)
Harvey and circulation of blood
Medicine in 18th century (ages of Theories)
Iatrophysics, iatrochemistry and vitalism
Medicine during 19th century
Pasteur and Koch
Seljukid medicine
Medicine during Ottoman Empire
Modernization of Medical Education in Ottoman Empire
Medicine in Turkish Republic

MEDICAL DEONTOLOGY AND ETHICS

THEORETICAL:

Introduction to Medical Deontology
Hippocrat From Cos Island
Hippocratic Oath
Patients-Physician Relationship
Models in Patient-Physician Relationship
Physician-Physician Relationship
Responsibility of Physician
Confidentiality
Privacy in Health Care
Patients Rights
Truth-telling
Right to Refuse Treatment
Informed Consent
Turkish Medical Law