

PHASE-1 / COMMITTEE-4 AIM(S)

1.	In this committee, it is aimed that the students comprehend the basic information about the structure and properties of DNA and RNA, molecular diagnostic methods, vitamins and minerals, glycoproteins, and proteoglycans.
2.	In this committee, it is aimed that the students comprehend the anatomical structures in the head and vertebral column bones and joints.
3.	In this committee, it is aimed that the students comprehend the mechanical and bioelectrical properties of bones.
4.	In this committee, it is aimed that the students comprehend the concepts related to ovulation and fertilization and the beginning and development stages of the embryonic and fetal period.
5.	In this committee, it is aimed that students comprehend the molecular mechanisms of cellular functioning.
6.	In this committee, it is aimed that the students comprehend the concepts, theories, teachings that form the basis of medical ethics and the ethical dimension of the patient-physician relationship.
7.	In this committee, it is aimed that the students comprehend analytical thinking, healthy communication with patients and their relatives through problem-based learning practices.

PHASE-1 / COMMITTEE-4 OBJECTIVE(S)

1.	To be able to describe the structure of nucleotides and nucleic acids, to be able to explain the structure and functions of DNA and RNA
2.	To be able to explain the metabolism of purine and pyrimidine nucleotides
3.	To be able to explain metabolism, regulation of gene expression and molecular diagnostic methods
4.	To be able to explain the roles and functions of vitamins, minerals, and trace elements
5.	To be able to explain chemical thermodynamics, oxidation-reduction reactions, glycoproteins, and proteoglycans
6.	To be able to recognize the bones forming the vertebral column and the structures on the bones and to be able to show them on the bones in the laboratory
7.	To be able to explain the vertebral column joints, joint types, and ligaments, to be able to show these structures on cadavers and models in the laboratory
8.	To be able to recognize the bones that make up the neurocranium and viscerocranium, the structures on these bones, and to be able to show these structures in the laboratory
9.	To be able to describe thorax bones and their structures, joints, ligaments, and functions
10.	To be able to recognize the whole cranium, basis cranii, calvaria, anthropological points
11.	To be able to explain the mechanical and electrical properties of bone
12.	To be able to explain bioelectric current and electrical safety
13.	To be able to explain the general definition of embryology, the names given to the structures developing in embryological periods and the stages of embryonic development
14.	To be able to count the stages of male and female genital system, cells formed in oogenesis and spermatogenesis, respectively
15.	To be able to describe the hormones in the ovulation process, the structural and functional changes that occur in the female reproductive organs in the presence and absence of fertilization, and the changes that occur in sperm and oocytes during the fertilization process
16.	To be able to describe the structural and hormonal changes that occur during implantation, changes in maternal and embryonic factors during implantation, implantation problems and the concept of ectopic pregnancy
17.	To be able to list the names of the structures that develop in the 2nd and 3rd weeks of development, to be able to list the structures that play a role in gastrulation and neurulation

18.	To be able to explain the important events that occur in embryonic and fetal periods, respectively and by week, and to be able to count congenital anomalies
19.	To be able to fully count the maternal and fetal parts that make up the placenta, the sacs and structures that develop outside the fetus, and multiple pregnancy types
20.	To be able to count assisted reproductive methods and to be able to define stem cells originating from embryo and fetus
21.	To be able to explain the structure and functions of DNA, RNA, and proteins
22.	To be able to explain single gene diseases, molecular mechanisms in multifactorial diseases and cancer
23.	To be able to explain the concept of inheritance
24.	To be able to explain macromolecules and cell structure function
25.	To be able to define normative systems such as ethics, morality, deontology, and law and to be able to evaluate the distinctions between them
26.	To be able to explain basic medical ethics theory and teaching concepts and the relationship between them
27.	To be able to recognize the professional values, to be able to comprehend the importance of internalizing the professional identity and values, and to be able to explain the physician's rights and responsibilities
28.	To be able to recognize value problems in the field of bioethics, to be able to distinguish ethical problems from other problem clusters
29.	To be able to comprehend the concept of human rights, dignity, well-being, and the importance of the historical process, to be able to comprehend the necessity of applying universal human rights principles in all areas of professional practice
30.	To be able to recognize an honest and reliable physician model in physician-patient interaction and to be able to defend the rights of vulnerable groups
31.	To be able to approach each patient/individual impartially, without judgment and without discrimination and to be able to explain that this is an ethical obligation

PHASE-1 / COMMITTEE-4 INTENDED LEARNING OUTCOME(S)

1.	Can describe the structure of nucleotides and nucleic acids, can explain the structure and functions of DNA and RNA.
2.	Can explain the metabolism of purine and pyrimidine nucleotides.
3.	Can explain metabolism, regulation of gene expression and molecular diagnostic methods.
4.	Can explain the roles and functions of vitamins, minerals, and trace elements.
5.	Can explain chemical thermodynamics, oxidation-reduction reactions, glycoproteins, and proteoglycans.
6.	Can recognize the bones forming the vertebral column and the structures on the bones and can show them on the bones in the laboratory.
7.	Can explain the vertebral column joints, joint types and ligaments, can show these structures on cadavers and models in the laboratory.
8.	Can recognize the bones that make up the neurocranium and viscerocranium, the structures on these bones, and can show these structures in the laboratory.
9.	Can describe thorax bones and their structures, joints, ligaments and functions.
10.	Can recognize the whole cranium, basis cranii, calvaria, anthropological points.
11.	Can explain the mechanical and electrical properties of bone.
12.	Can explain bioelectric current and electrical safety.
13.	Can explain the general definition of embryology, the names given to the structures developing in embryological periods and the stages of embryonic development.
14.	Can count the stages of male and female genital system, cells formed in oogenesis and spermatogenesis, respectively.
15.	Can describe the hormones in the ovulation process, the structural and functional changes that occur in the female reproductive organs in the presence and absence of fertilization, and the changes that occur in sperm and oocytes during the fertilization process.
16.	Can describe the structural and hormonal changes that occur during implantation, changes in maternal and embryonic factors during implantation, implantation problems and the concept of ectopic pregnancy.
17.	Can list the names of the structures that develop in the 2nd and 3rd weeks of development, can list the structures that play a role in gastrulation and neurulation.

18.	Can explain the important events that occur in embryonic and fetal periods, respectively and by week, and can count congenital anomalies.
19.	Can fully count the maternal and fetal parts that make up the placenta, the sacs and structures that develop outside the fetus, and multiple pregnancy types.
20.	Can count assisted reproductive methods and can define stem cells originating from embryo and fetus.
21.	Can explain the structure and functions of DNA, RNA and proteins.
22.	Can explain single gene diseases, molecular mechanisms in multifactorial diseases and cancer.
23.	Can explain the concept of inheritance.
24.	Can explain macromolecules and cell structure function.
25.	Can define normative systems such as ethics, morality, deontology and law and can evaluate the distinctions between them.
26.	Can explain basic medical ethics theory and teaching concepts and the relationship between them.
27.	Can recognize the professional values, can comprehend the importance of internalizing the professional identity and values, and can explain the physician's rights and responsibilities.
28.	Can recognize value problems in the field of bioethics, can distinguish ethical problems from other problem clusters.
29.	Can comprehend the concept of human rights, dignity, well-being and the importance of the historical process, can comprehend the necessity of applying universal human rights principles in all areas of professional practice.
30.	Can recognize an honest and reliable physician model in physician-patient interaction and can defend the rights of vulnerable groups.
31.	Can approach each patient/individual impartially, without judgment and without discrimination and can explain that this is an ethical obligation.