

**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE**

**SUMY STATE UNIVERSITY**

Academic and Research Medical Institute

Кафедра акушерства, гінекології та планування сім'ї

**OBSTETRICS AND GYNECOLOGY**

<b>Higher education level</b>	The Second
<b>Major: study programme</b>	222 Medicine: Medicine

Approved by Quality Council

Protocol dated \_\_\_\_\_ № \_\_\_\_\_

Chairman of the Quality Council

\_\_\_\_\_  
Petrashenko Viktoriia  
Oleksandrivna

DATA ON REVIEWS AND APPROVAL

Author

Sukhostavets Nataliia Petrivna

<p>Review of the course descriptor</p>	<p>_____</p> <p>_____</p>
<p>Considered and approved at the meeting of the work group of Study programme Медицина</p>	<p>Protocol dated _____ № _____</p> <p>Head of the work group (Head of the Study programme)</p> <p>_____ Prystupa Liudmyla Nykodymivna</p>
<p>Considered and approved at the meeting of the Кафедра акушерства, гінекології та планування сім'ї</p>	<p>Protocol dated _____ № _____</p> <p>Head of the Department</p> <p>_____ Boiko Volodymyr Ivanovych</p>



# SYLLABUS

## 1. General information on the course

<b>Full course name</b>	Obstetrics and Gynecology
<b>Full official name of a higher education institution</b>	Sumy State University
<b>Full name of a structural unit</b>	Academic and Research Medical Institute. Кафедра акушерства, гінекології та планування сім'ї
<b>Author(s)</b>	Sukhostavets Nataliia Petrivna
<b>Cycle/higher education level</b>	The Second Level Of Higher Education, National Qualifications Framework Of Ukraine – The 7th Level, QF-LLL – The 7th Level, FQ-EHEA – The Second Cycle
<b>Semester</b>	18 weeks across 7 semester
<b>Workload</b>	3 ECTS, 90 hours. For full-time course 66 hours are working hours with the lecturer (6 hours of lectures, 60 hours of seminars), 24 hours of the individual study.
<b>Language(s)</b>	English

## 2. Place in the study programme

<b>Relation to curriculum</b>	Compulsory course available for study programme "Medicine"
<b>Prerequisites</b>	Krok-1, Required knowledge of: Latin and medical terminology, - medical biology, - medical computer science, - human anatomy, - physiology, - histology, cytology and embryology - biological and bioorganic chemistry - microbiology, virology and immunology, - pathomorphology, - pathophysiology, - pharmacology - hygiene and ecology - propaedeutics pediatrics - nursing practice - radiology.
<b>Additional requirements</b>	There are no specific requirements
<b>Restrictions</b>	There are no specific restrictions

## 3. Aims of the course

The purpose of teaching the discipline "Obstetrics and Gynecology" is: the acquisition of knowledge from physiological and pathological obstetrics, conservative and operative gynecology, assimilation general principles of pregnancy, childbirth and the postpartum period, the ability to analyze obstetric situation and surgical risks of the gynecological patient, use the basic and additional research methods, demonstrate skills and abilities according to educational and

professional programs.

#### 4. Contents

<b>Module 1. Physiological course of pregnancy, childbirth and postpartum period.</b>
<p>Topic 1 Organization of obstetric and gynecological services in Ukraine. Female pelvis. Fetus as an object childbirth.</p> <p>Organization of obstetric and gynecological services in Ukraine. Female pelvis. Fetus as an object childbirth. Obstetrics as a branch of clinical medicine that considers physiological and pathological processes, related to pregnancy, childbirth and the postpartum period, its place in the general system medicine. Tasks of the course of obstetrics. The main historical stages of development of obstetrics and structure obstetric service in Ukraine. Principles of organization and methods of treatment and prevention assistance to pregnant women and women in labor in Ukraine. The structure of childbirth medical and preventive institutions, features of the organization of their work. Pelvis with anatomical and obstetric points of view. The structure and size of the female pelvis. Planes and dimensions of the pelvis. Measuring the size of the pelvis. Additional pelvic dimensions. Pelvic bottom. The structure and dimensions of the head and trunk of the fetus. Signs of maturity of the fetus. Mastering practical skills in simulation center on the phantom: measuring the size of the pelvis with a pelvometer, measurement of the Solovyov index, measurement of the Michaelis rhombus.</p>
<p>Topic 2 Physiology of pregnancy. Methods of examination of pregnant women. Perinatal protection of the fetus.</p> <p>Fertilization and development of a fertilized egg. Placenta, its structure and function. Critical periods of development embryo and fetus. Adaptive processes in a woman's body during pregnancy. Dispensary observation and care of pregnant women. Features of management of pregnant women in the conditions of a woman consultations. Methods of examination of pregnant women: diagnosis of early and late pregnancy. Topography of the fetus in the uterus. Management of physiological pregnancy. Gravidogram. Laboratory diagnosis of HIV infection. Counseling in the context of HIV infection. The concept of counseling and its ethical principles. Counseling skills. Determination of prenatal leave and date of birth. Nutrition and hygiene of pregnant women. Breast care. Perinatal protection of the fetus. Influence of harmful factors on the embryo and fetus. Principles of pharmacotherapy at an early stage pregnancy.</p>
<p>Topic 3 Physiology of childbirth. Anesthesia of childbirth</p> <p>Basic principles of normal childbirth. Psychoprophylactic preparation for childbirth. Initiation of labor. Causes of childbirth. Determining the readiness of the organism mother before childbirth. Predictors of childbirth, preliminary period. Diagnosis of periods and phases of childbirth. The mechanism of contraction of the myometrium during contractions (contractions, retractions, distractions). Course the first, second and third periods of childbirth. Childbirth. Supportive care during childbirth and childbirth. The order of recording partograms. Monitoring of the fetus in childbirth. Methods registration of uterine contractions and fetal heartbeat. Biomechanism of childbirth in anterior and posterior type of occipital presentation. Active management of the third period of childbirth.</p>

Topic 4 Physiology of the postpartum period. Physiology of the neonatal period. Reanimation newborns.

Physiology of the postpartum period. Physiology of the neonatal period. Signs of separation and removal of the placenta. External methods of separation of the placenta. Examination of the placenta after childbirth. Primary toilet of the newborn. Anesthesia of childbirth. Non-drug and medical anesthesia for childbirth. Requirements for medical anesthesia. Clinic and conducting the postpartum period. The concept of breastfeeding. Postpartum contraception: the method of lactation amenorrhea (MLA). Anatomical and physiological features of the period newborns. Newborn care. Advantages of cohabitation of mother and child. Features of resuscitation in newborns. Indications for providing resuscitation care to newborns. Algorithm of resuscitation care newborns.

## **Module 2. Pathological course of pregnancy, childbirth and the postpartum period.**

Topic 5 Anomalies in the development of the fertilized egg. Multiple pregnancy

Anomalies of extraembryonic elements of the ovum / placenta, amniotic membranes and umbilical cord rope. Bubble drift. Polyhydramnios and hypohydramnios: causes, diagnosis, management tactics pregnancy, consequences for the fetus and newborn. Hereditary and congenital diseases of the fetus. Diagnosis. Indications for medical and genetic counseling. Multiple pregnancy: classification, diagnosis, features of the course and management of multiple pregnancy. Childbirth at multiple pregnancy.

Topic 6 Placental dysfunction. Fetal distress. Delayed fetal development. Isoantigenic incompatibility of blood of mother and fetus.

Placental dysfunction, fetal distress, fetal developmental delay: risk factors, classification, diagnosis, tactics of pregnancy, prevention. Methods of diagnosing the condition of the fetus: non-invasive - ultrasound, CTG, fetal biophysical profile, Doppler, MRI; invasive - amniocentesis, cordocentesis, chorion biopsy. Biochemical research methods at different stages of pregnancy. Isoantigenic incompatibility of maternal and fetal blood (rhesus conflict, incompatibility according to the ABO system, isoleukocyte, etc.). Pathogenesis, diagnosis, management tactics, treatment, and prevention. Hemolytic disease of the fetus and newborn. Indications for premature birth at rhesus conflict.

Topic 7 Early gestosis. Hypertensive disorders during pregnancy. Preeclampsia. Eclampsia.

Early gestosis: classification, clinic, diagnosis, treatment. Hypertensive disorders during pregnancy. Preeclampsia: pathogenesis, classification, diagnosis, clinic, treatment, tactics, prevention. Eclampsia: clinic, diagnosis, complications, emergency care, tactics maintenance. Rare forms of preeclampsia

Topic 8 Miscarriage. Premature birth. Post-term pregnancy. Problem macrosomia in obstetrics.

Causes of spontaneous abortion at different times. Classification, clinic, diagnosis, treatment and prevention of spontaneous abortion. Threat of premature birth: diagnosis, treatment, obstetric tactics. Prevention of miscarriage. Premature childbirth. Etiology and pathogenesis of delayed pregnancy. Signs confirming the transfer pregnancy. Features of pregnancy and childbirth. Indications and conditions and methods of induction labor.

Topic 9 Narrow pelvis. Anomalies of position and presentation of the fetus. Childbirth with the wrong position and pelvic presentation of the fetus.

Anomalies of the pelvis. Classification, diagnosis. Diagnosis of synclitic and asynclitic inserting the head. Clinically narrow pelvis. Features of childbirth. Wrong position fetus: classification, diagnosis, tactics of pregnancy. Extension of the head fetus: classification, diagnosis. Correction of incorrect positions during pregnancy. Childbirth at incorrect position and pelvic presentation of the fetus, management tactics. Classification pelvic presentation of the fetus. Diagnosis and features of pregnancy. Pelvic correction presentation during pregnancy. Features of childbirth with pelvic presentation of the fetus. Biomechanism of childbirth in pelvic presentation of the fetus. Manual assistance with pure buttocks presentation by the method of Tsovyanov I. Classical manual assistance in removing the shoulder girdle. Derivation of the head by the method of Maurice-Levre-Lachapel. Manual foot care presentation by the method of Tsovyanov II.

Topic 10 Anomalies of contractile activity of the uterus.

Classification, risk factors, pathogenesis of various types of birth defects. Modern methods of diagnosis and treatment of labor disorders. Prevention of violations labor. Perinatal effects.

Topic 11 Obstetric bleeding during the first and second half of pregnancy, childbirth and postpartum period. Intensive care and resuscitation for bleeding in obstetrics.

Bleeding in the first half of pregnancy (miscarriage, ectopic pregnancy, premature detachment and placenta previa). Etiology, pathogenesis, clinic, diagnosis. Presentation of the placenta: etiology, pathogenesis, classification, clinic, diagnosis, features of the course, management of pregnancy and childbirth. Premature exfoliation is normal located placenta: etiology, clinic, diagnosis, features of pregnancy and childbirth. Kuveler's uterus. Disruption of placental abruption. Uterine bleeding in the third stage of labor and the early postpartum period. Hypotonic bleeding. Coagulopathic bleeding (embolism amniotic fluid and other causes). Hemorrhagic shock, terminal conditions in obstetrics. Disseminated intravascular coagulation syndrome. Intensive care and resuscitation with bleeding in obstetrics. Hemorrhagic shock. DIC syndrome. Modern approaches to infusion-transfusion and intensive care and resuscitation for bleeding in obstetrics.

Topic 12 Operative obstetrics. Childbirth injuries.

General concepts of surgical intervention in obstetrics: abortion in early pregnancy and late dates. Operations for the preparation of the birth canal (perino - and episiotomy, amniotomy). Obstetric forceps, vacuum fetal extraction, cesarean section: indications. Surgical interventions in consecutive and postpartum period. Manual separation of the placenta, excretion of manure: technique of carrying out. Manual and instrumental examination of the uterus after childbirth. Indications to supravaginal amputation, uterine extirpation, ligation of internal iliac arteries. Traumatic damage to the vulva, vagina, perineum. Rupture of the cervix. Uterine rupture: classification, mechanism of occurrence. The clinical picture of uterine rupture: threatening, that has begun and already took place. Features of uterine rupture behind the scar. Diagnosis, treatment and prevention. Inside uterus. Differences and ruptures of the pelvic joints. Postpartum fistulas. Etiology, treatment, prevention.

Topic 13 Postpartum septic diseases. Perinatal infections. Prevention of vertical HIV transmission.

Postpartum septic diseases: postpartum septic wound, postpartum metroendometritis, metrophlebitis, mastitis, postpartum peritonitis, peritonitis after cesarean section. Obstetric sepsis: classification etiology, pathogenesis, diagnosis, modern principles treatment, prevention. Septic shock, emergency care. Methods of suppression of lactation. Perinatal infections in pregnant women: clinical course, diagnosis, management tactics, treatment, prevention. Principles of pregnancy and childbirth in women with HIV. Prevention of vertical HIV transmission.

Topic 14 Pregnancy and childbirth in extragenital diseases.

Pregnancy and childbirth in diseases of the cardiovascular system (heart disease, hypertension diseases, arterial hypotension, diseases of the hematopoietic organs, diseases of the urinary organs systems; liver and gallbladder; respiratory organs; organs of the digestive system; endocrine systems; nervous system; organs of vision; acute and chronic infectious diseases, tuberculosis. The course of pregnancy and childbirth in gynecological diseases. Features course and tactics of management in acute surgical pathology.

Topic 15 Final lesson from the module "Physiological and pathological course of pregnancy, childbirth and the postpartum period". Protection of educational history of childbirth. Performance of practical skills and manipulations

Protection of educational history of childbirth. Protection of medical history will include issues of collection features history, methods of examination, analysis of labor and assessment of the newborn (ie, according to the conducted curation). The final lesson will include questions for the whole course physiological and pathological obstetrics, including: theoretical questions, questions to computer test control, as well as practice of practical skills in simulation center (in the absence of quarantine at the patient's bedside).

## 5. Intended learning outcomes of the course

After successful study of the course, the student will be able to:

LO1	To collect medical information about the obstetric patient and to be able to analyze clinical data (to acquire the skills of interviewing, external and internal obstetric and clinical laboratory examination of pregnant women, laborers and women in labor). To substantiate and apply clinical methods for understanding the manifestations of obstetric and gynecological pathology.
LO2	To perform differential diagnosis of obstetric pathology, formulate a clinical diagnosis on the basis of evaluating the results of laboratory and instrumental research methods.
LO3	To be able to determine the management tactics of patients with various pathological conditions.
LO4	To identify the main clinical syndrome, be able to determine the obstetric situation, establish a preliminary and clinical diagnosis, plan childbirth.
LO5	To explain the use of basic invasive and non-invasive diagnostic methods, to be able to perform medical manipulations.



LO6	To apply in practice the algorithms of examination and management of patients with emergency conditions, master the methods of treatment of emergency conditions in obstetric practice.
LO7	To argue information for making decisions about pregnancy and childbirth, bear responsibility for them in standard and non-standard professional situations; adhere to the principles of deontology and ethics in professional activity.
LO8	To acquire the ability to maintain medical documentation in an obstetrics hospital and at an outpatient appointment, including electronic forms.
LO9	To be able to assess the general condition of a newborn child and provide emergency care to a newborn in the delivery room according to existing algorithms and standard schemes, observing the relevant ethical and legal norms.
LO10	To perform manipulations of providing emergency medical care in limited time, using standard schemes, under any circumstances based on the diagnosis of an inappropriate condition in a pregnant, laboring or parturient woman.
LO11	To learn the main classes of pharmacological drugs used in midwifery practice, to apply the relevant clinical and pharmacological principles for the management of pregnant women, women in labor and women in labor, to calculate doses of drugs.
LO12	To be able to assess the influence of the environment on the condition of the fetus and the health of the pregnant woman.
LO13	To demonstrate mastery of the moral and deontological principles of a medical specialist and the principles of professional subordination
LO14	To be able to work with professional literature, analyze and use the information obtained.
LO15	To be able to perform medical manipulations in midwifery practice.
LO16	To determine the nature of nutrition to ensure the physiological course of pregnancy.
LO17	To determine the tactics, volume and nature of providing emergency medical care to pregnant women, women in labor, and women in labor
LO18	Search for the necessary information in the professional literature and databases of other sources, analyze, evaluate and apply this information. Apply modern digital technologies, specialized software, and statistical data analysis methods to solve complex healthcare problems.
LO19	Assess the impact of the environment on the health of the population.

## 6. Role of the course in the achievement of programme learning outcomes

Programme learning outcomes achieved by the course.

For 222 Medicine:

PO1	To detect and identify the leading clinical symptoms and syndromes (according to the List 1); to establish the most probable nosological or syndromic preliminary clinical diagnosis of diseases (according to the List 2) using standard methods, preliminary data of the patient's anamnesis, patient's examination data, and knowledge about a human, his organs and systems.
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PO2	To collect information about the patient's general condition; to assess the patient's psychomotor and physical development and the state of organs and systems of the body; to assess information on the diagnosis (according to the List 4) based on laboratory and instrumental findings.
PO3	To order and analyze additional (mandatory and optional) examinations (laboratory, radiological, functional and/or instrumental) (according to the List 4) in order to perform a differential diagnosis of diseases (according to the List 2).
PO4	To establish a final clinical diagnosis at a medical institution under control of a supervising doctor by means of informed decision and logical analysis of the obtained subjective and objective data of clinical and additional examinations, and differential diagnosis, following the relevant ethical and legal norms (according to the List 2).
PO5	To detect the key clinical syndrome or the reason for patient's condition severity (according to the List 3) via informed decision and evaluation of the person's state under any circumstances (at home, in the street, at a healthcare facility), including under emergency and military operation conditions, in the field, with a lack of information and limited time.
PO6	To determine the nature and treatment principles (conservative, operative) in patients with diseases (according to the List 2) at a healthcare facility, at patient's home or during medical evacuation process (including in the field), based on the provisional clinical diagnosis and observing the relevant ethical and legal norms, by making a reasonable decision according to existing algorithms and standard procedures based on the principles of evidence-based medicine; if needed to go beyond the standard scheme, to substantiate the personalized recommendations under control of a supervising doctor at a medical facility.
PO7	To determine an appropriate work and rest mode in the treatment of diseases (according to the List 2) at a healthcare institution, at patient's home and during medical evacuation (including in the field), based on the provisional clinical diagnosis and observing the relevant ethical and legal norms, by making a reasonable decision according to existing algorithms and standard procedures.
PO8	To determine an appropriate diet in the treatment of diseases (according to the List 2) at a healthcare institution, at patient's home and during medical evacuation (including in the field), based on the provisional clinical diagnosis and observing the relevant ethical and legal norms, by making a reasonable decision according to existing algorithms and standard procedures.
PO9	To determine an appropriate approach, plan, and management of physiological pregnancy, physiological delivery, and postpartum period by making a reasonable decision according to existing algorithms and standard procedures.
PO10	To assess the general condition of a newborn child by making an informed decision according to existing algorithms and standard schemes and adhering to the relevant ethical and legal norms.
PO11	Determine the tactics of emergency medical care, under any circumstances, adhering to the relevant ethical and legal norms, by adopting reasonable decision, based on the main clinical syndrome (severity of the condition) diagnosis of an emergency (according to the list 3) in a limited time with standard schemes.

PO12	To provide emergency medical assistance under any circumstances, adhering to the relevant ethical and legal norms, by making an informed decision based on the main clinical syndrome (disease severity) and emergency diagnosis (according to the List 3) using standard schemes and predetermined approach under limited time conditions based on the principles of evidence-based medicine.
PO13	To organize medical evacuation procedures among the population and the military under emergency and military operation conditions (including in the field), and during the phases of medical evacuation, given the existing system of medical evacuation provision
PO14	To perform medical procedures (according to the List 5) at a medical facility, at home or at work on the basis of a provisional clinical diagnosis and/or health parameters through making an informed decision and adhering to the relevant ethical and legal norms.
PO15	To perform procedures related to emergency medical assistance within a limited time and under any circumstances, using standard schemes on the basis of a medical emergency diagnosis (according to the List 3).
PO16	To plan and implement a system of sanitary and preventive measures against the occurrence and spread of diseases among the population
PO18	To search for the necessary information in the professional literature and databases; to analyze, evaluate, and apply this information. To apply modern digital technologies, specialized software, statistical methods of data analysis to solve complex health problems
PO19	To assess environmental impact on public health.
PO21	To organize an appropriate level of individual safety (own and of those cared for) in case of typical dangerous situations in the individual field of activity.

## 7. Soft Skills

SS1	Ability to abstract thinking, analysis and synthesis.
SS2	Ability to learn and master modern knowledge.
SS3	Knowledge and understanding of the subject area and understanding of professional activity.
SS4	Ability to adapt and act in a new situation.
SS5	Ability to make informed decisions.
SS6	Ability to use information and communication technologies.
SS7	Determination and persistence in relation to assigned tasks and assumed responsibilities

## 8. Teaching and learning activities

**Topic 1. Organization of obstetric and gynecological services in Ukraine. Female pelvis. Fetus as an object childbirth.**

pr.tr.1 "Organization of obstetric and gynecological services in Ukraine. Female pelvis. The fetus is like object of childbirth." (full-time course)

Organization of obstetric and gynecological services in Ukraine. The role of the family doctor in providing obstetric and gynecological care. "(full-time) The subject of obstetrics and gynecology, its significance. The main stages of development. Organization obstetric and gynecological service in Ukraine. The structure of obstetric and gynecological hospitals. The role of the family doctor in providing obstetric and gynecological care. Study of this topic involves theoretical work in the classroom, acquaintance with the structure of the clinical institution, the organization of its work, the study of regulations governing the work obstetric and gynecological medical institution, both inpatient and outpatient type, and as well as regulations governing the work of obstetricians and gynecologists.

pr.tr.2 "Female pelvis. Fetus as an object of childbirth." (full-time course)

Pelvis from anatomical and obstetric points of view. The structure and size of the female pelvis. Planes and dimensions of the pelvis. Measuring the size of the pelvis. Additional pelvic dimensions. Pelvic floor. The structure and size of the head and torso of the fetus. The concept of newborn maturity. Signs of maturity and maturity fetus. The study of this topic involves theoretical work in the classroom, work in a simulation center using an obstetric phantom and medical equipment (tazometer, tape measure). Mastering practical skills in a simulation center on a phantom: measuring the size of the pelvis with a tasometer, measuring the Solovyov index, measuring the rhombus Michaelis. Carrying out pelviometry on a phantom and (in the absence of quarantine restrictions) on a virtual patient or a pregnant woman in a women's clinic.

**Topic 2. Physiology of pregnancy. Methods of examination of pregnant women. Perinatal protection of the fetus.**

pr.tr.3 "Physiology of pregnancy." (full-time course)

Adaptive processes in a woman's body during pregnancy. Dispensary observation and care of pregnant women. Diagnosis of early and late pregnancy. Management of physiological pregnancy. Features of management of pregnant women in the conditions of women's consultation. The study of this topic involves theoretical work in the classroom, in the absence of quarantine skills: to collect and assess the history of general and specific functions of the female body; to establish the term of pregnancy, the expected term of childbirth and the weight of the fetus, and in the absence quarantine restrictions provide for work in a women's clinic or obstetric hospital (at the patient's bedside). Mastering the skills of collecting anamnesis, determining the term of prenatal leave, the expected date of birth with the help of role-playing games. Work with the use of virtual simulation (watching movies) with further discussion.

pr.tr.4 "Methods of examination of pregnant women. Perinatal protection of the fetus." (full-time course)

Methods of examination of pregnant women. Topography of the fetus in the uterus. Issues of perinatal protection of the fetus. Influence of harmful environmental factors on the fetus. Questions of perinatal pharmacology. The study of this topic involves theoretical work in the classroom, in the absence quarantine skills acquisition: conduct an external obstetric examination of the pregnant woman (receptions Leopold, auscultation of fetal heartbeat, pelviometry); set the term of pregnancy, estimated date of birth and fetal weight; to conduct an internal obstetric examination, measurement of diagonal conjugate (on a phantom), and in the absence of quarantine restrictions provided work in a women's clinic or obstetric hospital (near the bed atient). Work with the use of virtual simulation (watching movies) with the subsequent discussion. Mastering the skills of collecting anamnesis, determining the term of prenatal leave, estimated date of birth using role-playing games. Methods of examination of the pregnant woman in the conditions simulation center (mastering practical skills on models) using obstetric phantom. Keeping a gravidogram.

### **Topic 3. Physiology of childbirth. Anesthesia of childbirth**

pr.tr.5 "Physiology of childbirth" (full-time course)

Psychoprophylactic preparation for childbirth. Initiation of labor. Causes childbirth. Basic principles of normal childbirth. The study of this topic involves theoretical work in the classroom, work in the delivery room (student presence at childbirth). Childbirth. Maternity care. Supportive care during childbirth and childbirth. Maintenance of partogram (work with medical documentation). Acquaintance with the order of recording partograms. Be able to evaluate the results of the study of the fetus (CTG, ultrasound, BPP, dopplerometry of blood flow) and determine the tactics of pregnancy depending on the received results Work in the simulation center (mastering practical skills on models). Working out of the biomechanism of childbirth at anterior and posterior occipital view presentation. Determining the position of the head relative to the planes of the pelvis. Conducting an episiotomy, perineotomy, local anesthesia for suturing an episiotomy incision, active management of the third period of childbirth, identification of signs and practice of external methods of separation and removal manure, examination of the birth canal. Work with the use of virtual simulation (review films) with further discussion. Determining the period of childbirth (working with a virtual patient, mastering skills using roleplaying games).

pr.tr.6 "Childbirth anesthesia." (full-time course)

Methods of labor anesthesia. Non-drug and drug analgesia of childbirth. Requirements for medical anesthesia. Master the methods of psychoprophylactic preparation for childbirth. The study of this topic involves theoretical work in the classroom, and provided absence of quarantine restrictions work in the conditions of a maternity hospital, obstetrics is provided operating room (acquaintance with methods of spinal, epidural anesthesia, endotracheal anesthesia for analgesia obstetric surgery). Work with the use of virtual simulation (watching movies) with further discussion.

### **Topic 4. Physiology of the postpartum period. Physiology of the neonatal period. Reanimation newborns.**

pr.tr.7 "Physiology of the postpartum period." (full-time course)

Changes in the body of the mother, genitals, mammary glands. Clinic and management postpartum period. The concept of breastfeeding. Postpartum contraception: a method lactational amenorrhea (MLA). The study of this topic involves theoretical work in the school room, in the simulation center (mastering practical skills on models), working off newborn care skills. Work with the use of virtual simulation (review films) with further discussion.

pr.tr.8 "Physiology of the newborn period. Resuscitation of newborns." (full-time course)

Anatomical and physiological features of the neonatal period. Assess the condition of the newborn for Apgar scale, to conduct the primary toilet of the newborn. Primary toilet. Features of resuscitation care for newborns in the delivery room. Indications for resuscitation of newborns. Learning ten steps thermal circuit. Features of newborn care. Advantages of cohabitation mother and child. The study of this topic involves theoretical work in the classroom, in simulation center (mastering practical skills on models), practice skills newborn care. Work in an obstetric hospital, intensive care unit newborns (according to the signed agreement between the university and the clinical institution), work in simulation center (mastering the algorithm of resuscitation of newborns (obstetric phantom, medical equipment - pinlon, laryngoscope, intubation tubes, etc.). Application of virtual simulation (watching movies with further discussion).

#### **Topic 5. Anomalies in the development of the fertilized egg. Multiple pregnancy**

pr.tr.9 "Anomalies in the development of the fertilized egg." (full-time course)

Anomalies of extraembryonic elements of the ovum / placenta, amniotic membranes and umbilical cord rope. Polyhydramnios and hypohydramnios: causes, diagnosis, tactics of pregnancy, consequences for fetus and newborn. Hereditary and congenital diseases of the fetus. Diagnosis. Indications to medical and genetic counseling. The study of this topic involves theoretical work in training room, in the simulation center (mastering practical skills on models), for no quarantine restrictions work in the office of a medical geneticist, work in the office ultrasound diagnostics, work with the use of virtual simulation (watching movies) with further discussion.

pr.tr.10 "Multiple pregnancy." (full-time course)

Multiple pregnancy: classification, diagnosis, features of the course and management of multiple pregnancy. Childbirth in multiple pregnancies. The study of this topic involves theoretical work in the study room, in the simulation center (mastering practical skills on models), in the absence of quarantine restrictions work in the office of a medical geneticist, work in ultrasound diagnostics room, work with the use of virtualsimulation (viewing films) with further discussion

#### **Topic 6. Placental dysfunction. Fetal distress. Delayed fetal development. Isoantigenic incompatibility of blood of mother and fetus.**

pr.tr.11 "Placental dysfunction. Fetal distress. Fetal developmental delay." (full-time course)

Placental dysfunction, fetal distress, fetal developmental delay: risk factors, classification, diagnosis, tactics of pregnancy, prevention. Methods of diagnosing the condition of the fetus: non-invasive - ultrasound, CTG, fetal biophysical profile, Doppler, MRI; invasive - amniocentesis, cordocentesis, chorion biopsy. The study of this topic involves theoretical work in the school room, in the simulation center (mastering practical skills on models), work with using a virtual simulation (watching movies) with further discussion. Provided absence of quarantine restrictions work with medical equipment in the clinic: assessment the results of the study of the fetus and placenta (CTG, ultrasound, BPP, dopplerometry of umbilical vessels) and determining the tactics of pregnancy depending on the results.

pr.tr.12 "Isoantigenic incompatibility of maternal and fetal blood." (full-time course)

Isoantigenic incompatibility of maternal and fetal blood (rhesus conflict, incompatibility according to the ABO system, isoleukocyte, etc.). Hemolytic disease of the fetus and newborn. Indications to premature birth in rhesus conflict. The study of this topic involves theoretical work in the study room, in the simulation center (mastering practical skills on models), work with the use of virtual simulation (watching movies) with the subsequent discussion.

**Topic 7. Early gestosis. Hypertensive disorders during pregnancy. Preeclampsia. Eclampsia.**

lect.1 "Early gestosis. Hypertensive disorders during pregnancy. Preeclampsia. Eclampsia." (full-time course)

Early gestosis: classification, clinic, diagnosis, treatment. Hypertensive disorders during pregnancy. Preeclampsia: pathogenesis, classification, diagnosis, clinic, treatment, tactics, prevention. Eclampsia: clinic, diagnosis, complications, emergency care, tactics maintenance. Rare forms of preeclampsia

pr.tr.13 "Early gestosis." (full-time course)

Early gestosis: classification, clinic, diagnosis, treatment. The study of this topic involves theoretical work in the classroom, in the simulation center (practice of skills on phantoms, the use of virtual simulation (watching movies with further discussion). In addition, the study of this topic involves role-playing games, mastering the skills of detection early signs of preeclampsia, the use of simple screening methods for the diagnosis of preeclampsia, evaluation of laboratory results.

pr.tr.14 "Hypertensive disorders during pregnancy. Preeclampsia. Eclampsia." (full-time course)

Hypertensive disorders during pregnancy. Preeclampsia: pathogenesis, classification, diagnosis, clinic, treatment, tactics, prevention. Eclampsia: clinic, diagnosis, complications, emergency care, management tactics. The study of this topic involves theoretical work in training room, in the simulation center (practice of skills on phantoms, application virtual simulation (watching movies with further discussion). In addition, when studying this topic provides role-playing games, evaluation of laboratory results examination. Work in the department of extragenital pathology and obstetric resuscitation no quarantine restrictions: be able to determine the tactics of management in preeclampsia, provide emergency care in case of an eclampsia attack.

**Topic 8. Miscarriage. Premature birth. Post-term pregnancy. Problem macrosomia in obstetrics.**

lect.2 "Miscarriage. Premature birth." (full-time course)

Causes of spontaneous abortion at different times. Classification, clinic, diagnosis, treatment and prevention of spontaneous abortion. Threat of premature birth: diagnosis, treatment, obstetric tactics. Prevention of miscarriage. Premature childbirth.

pr.tr.15 "Miscarriage. Premature birth." (full-time course)

The threat of premature birth: diagnosis, treatment, obstetric tactics. Prevention miscarriage. Tactics of premature birth. Study of this topic involves theoretical work in the classroom, in the simulation center. In the absence quarantine restrictions work in an obstetric hospital (continuation of skills development examination of the cervix in mirrors, pH-metry of vaginal contents to determine leakage of amniotic fluid, assessment of the degree of maturity of the cervix by Bishop). Application virtual simulation (watching movies demonstrating the clinical manifestations of the threat of premature childbirth). In addition, the study of this pathology involves role-playing games: practice skills to make a preliminary diagnosis of preterm birth and plan management tactics. Plan preventive measures at the risk of premature birth.

pr.tr.16 "Post-term pregnancy." (full-time course)

Etiology and pathogenesis of delayed pregnancy. Peculiarities of managing pregnancy and childbirth from the standpoint of evidence-based medicine. Indications and conditions for labor induction. Methods of labor induction. The study of this topic involves theoretical work in a classroom, a simulation center (acquiring practical skills on an obstetric phantom), the use of virtual simulation (watching films on induction of labor in late pregnancy, the use of mechanical methods of preparation for childbirth: finger separation of the amniotic membranes, insertion into the cervix Foley's balloon catheter, kelp, medications. In the absence of quarantine restrictions, work in the departments of a medical institution (according to the agreement on cooperation between the medical institution and the university): work in an obstetric hospital (continuation of practicing the skills of examining the cervix in mirrors, carrying out pH-metry of vaginal contents in order to determine the inflow of amniotic fluid, assessing the degree cervical maturity according to Bishop). In addition, when studying this pathology, role-playing games are provided: practicing the skills of establishing a preliminary diagnosis, tactics of managing a virtual patient.

**Topic 9. Narrow pelvis. Anomalies of position and presentation of the fetus. Childbirth with the wrong position and pelvic presentation of the fetus.**

pr.tr.17 "Narrow pelvis. The problem of macrosomia in obstetrics." (full-time course)

Anomalies of the bony pelvis. Classification, diagnosis. The problem of macrosomia in obstetrics. The concept of shoulder dystocia. Clinically narrow pelvis. Peculiarities of childbirth. The study of this topic involves theoretical work in a training room, a simulation center (mastering the skills of childbirth on an obstetric phantom, techniques for removing the shoulder girdle in case of shoulder dystocia), learning to determine the diagnostic criteria of a narrow pelvis (perform pelviometry). Establish a diagnosis of a clinically narrow pelvis (Vasten's sign, Zangenmeister's sign on the phantom). The use of virtual simulation (watching films on the topic of classes with the use of Patvardan in operative childbirth, obstetric techniques for removing the shoulder girdle in case of shoulder dystocia with further discussion). In addition, the study of this topic involves role-playing, mastering inspection skills, palpation "one on one", carrying out pelviometry to determine the size of the pelvis. In the absence of quarantine restrictions, work in the departments of the medical institution (according to the cooperation agreement between the medical institution and the university).



pr.tr.18 "Anomalies of the position and extensor insertions of the fetal head." (full-time course)

Anomalies of the position and extensor insertions of the fetal head. Classification, diagnosis. Diagnosis of asynclitic insertion of the head. Peculiarities of childbirth. Incorrect position of the fetus: classification, diagnosis, pregnancy management tactics from the standpoint of evidence-based medicine. Correction of incorrect positions during pregnancy. The study of this topic involves theoretical work in a training room, a simulation center (practicing the skills of external and internal obstetric examination, using Leopold's techniques, mastering the technique of combined external and internal rotation of the fetus, extraction of the fetus by the leg, by the inguinal fold, studying and practicing the biomechanisms of childbirth with extensor presentations of the fetus using an obstetric phantom). Application of virtual simulation (watching films on the subject of the lesson with further discussion). In addition, the study of this topic includes role-playing games, mastering inspection skills, and palpation. In the absence of quarantine restrictions, work in the departments of the medical institution (according to the cooperation agreement between the medical institution and the university).

pr.tr.19 "Pregnancy and childbirth with breech presentation of the fetus." (full-time course)

Pregnancy and childbirth with breech presentation of the fetus, management tactics. Classification of fetal pelvic presentations. Diagnosis, peculiarities of pregnancy and childbirth management. Methods of correction of pelvic presentation of the fetus. The study of this topic involves theoretical work in a training room, a simulation center (practice with the use of an obstetric phantom of the skills of external and internal obstetric examination, the use of Leopold's techniques, mastering the technique of correcting pelvic presentations during pregnancy; studying the peculiarities of childbirth in breech presentation of the fetus; practicing the biomechanism of childbirth with pelvic presentation of the fetus; manual assistance with purely breech presentation according to the Tsovyanov I method; classic manual assistance with the removal of the shoulder girdle; head removal with the Morisot-Levret-Lyachapel method; manual assistance with leg presentation according to the Tsovyanov II method). Determination of indications for operative delivery in pelvic presentation of the fetus. Application of virtual simulation (watching films on the subject of the lesson with further discussion). In the absence of quarantine restrictions, work in the departments of the medical institution (according to the cooperation agreement between the medical institution and the university).

#### **Topic 10. Anomalies of contractile activity of the uterus.**

pr.tr.20 "Anomalies of contractile activity of the uterus." (full-time course)

Classification, risk factors, pathogenesis of various types of birth defects. Prevention of birth defects. The study of this topic involves theoretical work in the classroom, in the absence of quarantine restrictions - work in the delivery room, classes in simulation center (obstetric phantom). Practice of practical skills: definition readiness of the mother's body for childbirth; assessment of cervical maturity (scale of degrees of maturity cervix by E.H. Bishop). Mastering the methods of diagnosis and treatment of maternity disorders activities. Diagnosis of periods and phases of childbirth. The mechanism of contraction of the myometrium during contractions (contractions, retractions, distractions). The order of recording partograms. Monitoring of the fetus in childbirth. Methods of registration of uterine contractions and fetal heartbeat). Application of virtual simulation (watching movies on the topic of the lesson with further discussion).

#### **Topic 11. Obstetric bleeding during the first and second half of pregnancy, childbirth and postpartum period. Intensive care and resuscitation for bleeding in obstetrics.**

lect.3 "Obstetric bleeding during the second half of pregnancy, childbirth and postpartum period. Intensive care and resuscitation for bleeding in obstetrics." (full-time course)

Causes of obstetric bleeding during the second half of pregnancy, childbirth and postpartum period. Estimation of blood loss. Algorithm for providing emergency care in obstetrics bleeding. Intensive care and resuscitation for bleeding in obstetrics. Rendering algorithm emergency care for hemorrhagic shock. Pulmonary artery thromboembolism. Embolism amniotic fluid.

pr.tr.21 "Obstetric bleeding during the first and second half of pregnancy, childbirth and postpartum period" (full-time course)

Etiology and clinic of obstetric bleeding during the second half of pregnancy, in childbirth and the postpartum period. The study of this topic involves theoretical work in the school room, in an obstetric hospital (in the absence of quarantine restrictions), simulation center (practice of inspection skills, palpation), the use of virtual simulations (watching movies with further discussion). Master practical assessment skills volume of blood loss. Be able to develop an algorithm for providing emergency care in obstetrics bleeding.

pr.tr.22 "Intensive care and resuscitation for bleeding in obstetrics." (full-time course)

Intensive care and resuscitation for bleeding in obstetrics. Hemorrhagic shock. DIC syndrome. Pulmonary artery thromboembolism. Amniotic fluid embolism. Study of this topic provides theoretical work in the classroom, in an obstetric hospital (for no quarantine restrictions), in the simulation center, the use of virtual simulation (watching movies with further discussion). Master practical volume estimation skills blood loss. Be able to develop an algorithm for providing emergency care in obstetrics bleeding. Develop an algorithm for providing emergency care for hemorrhagic shock, DIC syndrome. Determination of the stage of DIC syndrome, evaluation of laboratory parameters. Study modern approaches to infusion-transfusion and intensive care and resuscitation pulmonary embolism, amniotic fluid embolism.

## **Topic 12. Operative obstetrics. Childbirth injuries.**

pr.tr.23 "Operative obstetrics." (full-time course)

General concepts of operative interventions in obstetrics. Obstetric forceps, vacuum extraction of the fetus. Operative interventions in the postpartum and postpartum period. The study of this topic involves theoretical work in a training room, a simulation center (practicing the skills of small obstetric operations on a phantom: operations for the preparation of the birth canal (perineo- and episiotomy, amniotomy); obstetric forceps, vacuum extraction of the fetus, manual separation of the placenta, separation of the litter: technique; manual and instrumental examination of the uterus after childbirth). In the absence of quarantine restrictions, work in the departments of the medical institution (according to the agreement on cooperation between the medical institution and the university): work in the obstetric department, obstetric operating room. Learning the technique of applying obstetric forceps and a vacuum extractor using virtual simulation (watching videos with further discussion).

pr.tr.24 "Operative obstetrics." (full-time course)

Caesarean section: indications. Indications for supravaginal amputation, extirpation of the uterus, ligation of the internal iliac arteries. The study of this topic involves theoretical work in the classroom, simulation center - practicing the skills of cesarean section technique. In the absence of quarantine restrictions, work in the departments of the medical institution (according to the agreement on cooperation between the medical institution and the university): work in the obstetric department, obstetric operating room. Determination of absolute and relative indications for caesarean section. Mastering the methods of preoperative preparation and postoperative management of patients. Study of the technique of cesarean section in the lower segment of the uterus using virtual simulation (watching videos with further discussion).

pr.tr.25 "Childbirth injuries." (full-time course)

Traumatic injuries of the vulva, vagina, perineum. Rupture of the cervix. Uterine rupture: classification, mechanism of occurrence. The clinical picture of uterine rupture: threatening, that started and has already taken place. Features of uterine rupture behind the scar. Diagnosis, treatment and prevention. Uterine inversion. Differences and ruptures of the pelvic joints. Postpartum fistulas. Etiology, treatment, prevention. The study of this topic involves theoretical work in classroom, in an obstetric hospital (in the absence of quarantine restrictions), simulation center (suturing of ruptures of the birth canal, mastering the technique of local anesthesia).

**Topic 13. Postpartum septic diseases. Perinatal infections. Prevention of vertical HIV transmission.**

pr.tr.26 "Postpartum septic diseases." (full-time course)

Postpartum septic diseases: postpartum septic wound, postpartum metroendometritis, metrothrombophlebitis, mastitis, postpartum peritonitis, peritonitis after cesarean section. Obstetric sepsis: classification, etiology, pathogenesis, diagnosis, modern principles of treatment from the standpoint of evidence-based medicine, prevention. Septic shock, emergency care. Methods of suppression of lactation. The study of this topic involves theoretical work in a classroom, a simulation center (work with an obstetric phantom), the use of virtual simulation (viewing films with the main clinical manifestations of postpartum septic infection) with further discussion. In the absence of quarantine restrictions, work in the departments of the medical institution (according to the agreement on cooperation between the medical institution and the university) in the department of extragenital pathology (taking anamnesis, examination of pregnant women with perinatal infections), the office of ultrasound diagnostics (determination of ultrasound signs of fetal infection). Role playing game. Be able to develop an algorithm for providing emergency care in case of septic shock.

pr.tr.27 "Perinatal infections. Prevention of vertical transmission of HIV." (full-time course)

Perinatal infections in pregnant women: clinical course, diagnosis, management tactics, treatment from the standpoint of evidence-based medicine, prevention. Principles of pregnancy and childbirth in women with HIV. Prevention of vertical transmission of HIV. The study of this topic involves theoretical work in a classroom, a simulation center (work with an obstetric phantom), the use of virtual simulation (viewing thematic films) with further discussion. In the absence of quarantine restrictions, work in the departments of the medical institution (according to the agreement on cooperation between the medical institution and the university) in the department of extragenital pathology (taking anamnesis, examination of pregnant women with perinatal infections), the office of ultrasound diagnostics (determination of ultrasound signs of fetal infection). Role playing game.

**Topic 14. Pregnancy and childbirth in extragenital diseases.**

pr.tr.28 "Pregnancy and childbirth with extragenital diseases." (full-time course)

Pregnancy and childbirth in diseases of the cardiovascular system (heart disease, hypertension diseases, arterial hypotension, diseases of the hematopoietic organs, diseases of the urinary organs systems; liver and gallbladder; respiratory organs; organs of the digestive system; endocrine systems; nervous system; organs of vision; acute and chronic infectious diseases, tuberculosis). The course of pregnancy and childbirth in gynecological diseases. Features of the course and tactics management in acute surgical pathology. The study of this topic involves theoretical work in the classroom, in Department of Extragenital Pathology of Pregnant Women (based on the Agreement between the clinical institution and University), in the simulation center, the use of virtual simulation (watching movies with further discussion)

**Topic 15. Final lesson from the module "Physiological and pathological course of pregnancy, childbirth and the postpartum period". Protection of educational history of childbirth. Performance of practical skills and manipulations**

pr.tr.29 "Performance of practical skills and manipulations." (full-time course)

Performance of practical skills and manipulations.

pr.tr.30 "Final lesson from the module "Physiological and pathological course of pregnancy, childbirth and postpartum period. Protection of educational history of childbirth." (full-time course)

The final lesson will include questions for the entire course of physiological and pathological obstetrics, including: theoretical questions, questions to computer test control, and also practice of practical skills in the simulation center (in the absence of quarantine restrictions at the patient's bedside). Examination of pregnant women, mothers and parturients under the supervision of a teacher. Participation in childbirth. Work with medical documentation. Protection of educational history of childbirth. Protection of medical history will be include questions about the peculiarities of history taking, methods of examination, analysis of childbirth and assessment of the condition of the newborn (ie, accordingly conducted curation). Independent curation course of physiological childbirth. Preparation for writing the history of physiological childbirth. If the absence of quarantine restrictions during the curation of the student is granted the right to be present at childbirth in the maternity hospital, which is located in the maternity ward of the medical institution. Student independently, but under the guidance of a teacher conducts a clinical examination of the mother. Results examinations with conclusions are made out by the student in the form of written work. Rules writing a medical history is regulated by relevant regulations.

**9. Teaching methods****9.1 Teaching methods**

Course involves learning through:

TM1	Lecture teaching
TM2	Case-based learning
TM3	Team Based Learning
TM4	Research Based Learning
TM5	Practical training

TM6	Self-study
TM7	Electronic learning

The discipline is taught using modern teaching methods (CBL, TBL, RBL), which contribute not only to the development of professional abilities, but also stimulate creative and scientific activities and aimed at training practice-oriented specialists.

Acquisition of soft skills by students is carried out during the entire period of studying the discipline. Ability to analytical and critical thinking, teamwork, perseverance is formed during team-, practice- and case-oriented training, knowledge and understanding of the subject area is acquired during lectures and self-study. Electronic education impairs the ability to use information technologies. training on the basis of the study encourages the development of certainty and perseverance in relation to the set tasks and assumed responsibilities.

## 9.2 Learning activities

LA1	Writing a medical history
LA2	Interpretation of laboratory (clinical blood, urine, biochemical blood analysis, immunological studies) and other (CTG, CT, MRI, ultrasound with Doppler blood flow, transvaginal cervicometry instrument, determination of the biophysical profile of the fetus) examination methods
LA3	Preparation for practical classes.
LA4	Analysis of clinical cases.
LA5	Practical work with the patient in specialized departments of the hospital.
LA6	Electronic learning in systems (Zoom, MIX.sumdu.edu.ua).
LA7	Preparation for the final differentiated assessment.
LA8	Individual research project (student research paper, article, theses, etc.) .
LA9	Working with textbooks and relevant information sources.
LA10	Practicing practical skills in the simulation center.
LA11	Performance of group practical task
LA12	Interactive lectures.

## 10. Methods and criteria for assessment

### 10.1. Assessment criteria

Definition	National scale	Rating scale
Outstanding performance without errors	5 (Excellent)	$170 \leq RD \leq 200$
Above the average standard but with minor errors	4 (Good)	$140 \leq RD < 169$
Fair but with significant shortcomings	3 (Satisfactory)	$120 \leq RD < 139$
Fail – some more work required before the credit can be awarded	2 (Fail)	$0 \leq RD < 119$

## 10.2 Formative assessment

	<b>Description</b>	<b>Deadline, weeks</b>	<b>Feedback</b>
FA1 Peer assessment	Partnership interaction aimed at improving the results of educational activities by comparing one's own current level of success with previous indicators. Provides an opportunity to analyze one's own educational activities.	During the entire period of studying the discipline	Adjusting community-acquired approaches to learning with assessment results.
FA2 Counseling of the teacher during the writing of the medical history	Writing a birth history involves demonstrating the ability to work with a pregnant woman, consolidating practical skills of physical examination, evaluation and analysis of medical documentation, establishing a clinical diagnosis with elements of differential diagnosis, delivery, prescribing treatment. Protection of childbirth history is provided, when the student must provide answers to questions about the pregnant woman he supervised.	Writing during the cycle, defense - in accordance with the calendar and thematic plan	Counseling of the teacher during the writing of the medical history with oral comments. The applicant receives a grade for writing a medical history (5 points maximum) and defense (5 points maximum)
FA3 Final testing	A method of effective verification of the level of assimilation of knowledge, abilities and skills from an educational discipline. Testing allows you to check the results of training after completing the discipline.	In the penultimate lesson of discipline.	The maximum number of points for the test is 10 points, provided that 100% of the answers are correct. The minimum score for successfully passing the tests is 6 points (60% of correct answers)
FA4 Consulting the teacher during the preparation of an individual research project (speech at a conference, competition of scientific papers)	An important factor in the formation of professional qualities of future specialists is the research work of students. Involvement of the latter in research activities contributes to the formation of their scientific worldview, industriousness, work capacity, initiative, etc.	During the entire period of studying the discipline.	Teacher's oral comments. The student is given additional incentive points (from 5 to 10), depending on the type of research project.

<p>FA5 Instructions of the teacher in the process of performing practical tasks</p>	<p>The guidelines reveal the methods of pedagogical control over the professional activities of applicants. Efficiency is determined by compliance with all stages of practical tasks. The effectiveness of the formation of the necessary practical skills and abilities depends on the level of formation of practical competence.</p>	<p>During the entire period of studying the discipline</p>	<p>Counseling of students in working with a standardized patient, direct and indirect observation of the work of applicants "at the bedside" of the patient with further determination of the level of practical training</p>
<p>FA6 Survey and teacher's oral comments based on his results</p>	<p>It provides an opportunity to identify the state of educational experience gained by students in accordance with the set goals, to find out the prerequisites of the state of formation of the obtained results, the causes of difficulties, to adjust the learning process, to track the dynamics of the formation of learning results and to forecast their development.</p>	<p>During the entire period of studying the discipline.</p>	<p>According to the obtained data on the results of training, on the basis of their analysis, it is proposed to determine the evaluation as an indicator of the achievements of the students' educational activities.</p>
<p>FA7 Solving clinical cases</p>	<p>The case method makes it possible to reveal and form the qualities and abilities of medical students necessary for further work, forms clinical thinking, analytical abilities, independence in decision-making, communication, skills for working with a sufficiently large amount of information.</p>	<p>During the entire period of studying the discipline</p>	<p>Assessment of the student's ability to think clinically, justify their decisions, express their opinions clearly, determine the level of theoretical training, which is reflected in the corresponding assessment.</p>
<p>FA8 Tests (automated tests) to control the educational achievements of applicants</p>	<p>A method of effective verification of the level of assimilation of knowledge, abilities and skills from each subject of an educational discipline. Testing allows you to check the assimilation of educational material from each subject.</p>	<p>During the entire period of studying the discipline</p>	<p>the student must provide 60% of the correct answers, which is an admission to the practical part of the lesson</p>
<p>FA8 Tests (automated tests) to control the educational achievements of applicants</p>	<p>Assessment of acquired theoretical knowledge on the subject of the discipline. It is conducted at each practical session in accordance with the specific goals of each topic based on a comprehensive assessment of the student's activity, which includes monitoring the level of theoretical training, performing independent work according to the thematic plan</p>	<p>During the entire period of studying the discipline</p>	<p>the student must provide 60% of the correct answers, which is an admission to the practical part of the lesson</p>

FA9 The task of assessing the level of theoretical training	Assessment of acquired theoretical knowledge on the subject of the discipline. It is conducted at each practical lesson in accordance with the specific goals of each topic based on a comprehensive assessment of the student's activity, which includes monitoring the level of theoretical training, performing independent work according to the thematic plan.	During the entire period of studying the discipline	Feedback is aimed at supporting students' independent work, identifying shortcomings and assessing the level of acquired theoretical knowledge.
FA10 Practical skills test	Practicing practical skills on various mannequins and simulators.	uring the entire period of study. At the last lesson, the student must successfully perform practica	Successful performance of practical skills in the discipline is an admission to a differentiated assessment. The maximum number of points is 20, the minimum is 12.
FA11 Discussions in focus groups	The method makes it possible to involve all participants in the process of discussion and justification of one's own opinion through multilateral communication, to develop the ability to conduct a professional discussion, to cultivate respect for colleagues and the ability to generate alternative ideas and proposals.	the entire period of studying the discipline	Assessment of the student's ability to work in a team, ability to justify their decisions, determination of the level of theoretical training, which is reflected in the corresponding assessment

### 10.3 Summative assessment

	Description	Deadline, weeks	Feedback
SA1 Differentiated credit	Compilation of differentiated credit. Applicants who have successfully mastered the material of the discipline, passed practical skills and final computer testing, and defended their medical history are admitted to the exam.	In the last lesson of the cycle.	the applicant can receive 80 points for differential assessment. The minimum number of points a student must receive is 48 points



SA2 Assessment of medical history writing and defense	Writing a birth history involves demonstrating the ability to work with a pregnant woman, consolidating the practical skills of a physical examination of a pregnant woman, evaluating and analyzing medical documentation, establishing a clinical diagnosis with elements of differential diagnosis, delivery tactics, and prescribing treatment. a pregnant woman whom he supervised.	According to the calendar and thematic plan	A student can get a maximum of 10 points. 5 points are awarded for writing, 5 points for defense. The minimum number of points for a successful defense is 6 points
SA3 Final testing	A method of effective verification of the level of assimilation of knowledge, abilities and skills from an educational discipline. Testing allows you to check the results of training during the cycle and determine the level of knowledge at the end of the discipline.	Final computer test at the end of the course (10 points)	It is an admission to take a differentiated assessment.
SA4 Performance of practical skills and manipulations	Comprehensive practice of the practical component of academic programs in a safe simulation environment for students. Provides an opportunity to learn skills from a variety of emergency situations.	At the last discipline lesson, the student must successfully complete a list of practical skills	It is mandatory for admission to differentiated credit. The maximum number of points is 20, the minimum is 12
SA5 Current evaluation of the level of theoretical and practical training	Includes oral interview, interpretation of laboratory and instrumental methods of examination, objective structuring of clinical examination of the patient, answer of clinical individual and group keys, current testing. Students who are involved in research activities have the opportunity to present the results of their own research at conferences, student research competitions, etc. (incentive activities, additional points).	During the entire period of studying the discipline	At each lesson, the result of the ND performance affects the comprehensive assessment for the practical lesson

Form of assessment:

	Points	Minimum points	Можливість перескладання з метою підвищення оцінки
<b>7 semester</b>	<b>200 scores</b>		
SA1. Differentiated credit	<b>80</b>		

	theoretical questions (3x15), practical training questions (15), emergency care questions (20)	80	48	No
	SA2. Assessment of medical history writing and defense	<b>10</b>		
		10	6	No
	SA3. Final testing	<b>10</b>		
		10	6	No
	SA4. Performance of practical skills and manipulations	<b>20</b>		
		20	12	No
	SA5. Current evaluation of the level of theoretical and practical training	<b>80</b>		
		80	48	No

When mastering the materials of the student module for each practical lesson is assigned a maximum of 5 points (score is set in the traditional 4-point grading system). At the end of the training year, the arithmetic mean of student performance is calculated. The maximum number of points that the student can receive in practical classes during the academic year - 110. Number of points student is calculated by the formula 110 multiplied by the arithmetic mean and divided by 5. By writing the history of the disease are assigned the following points: "5" - 5 points, "4" - 4 points, "3" - 3 points, "2" - 0 points. Protection of medical history: "5" - 5 points, "4" - 4 points, "3" - 3 points, "2" - 0 points. In general, for history illness student can get a maximum of 10 points, the minimum required score of 6. Maximum the number of points for the current educational activities of the student - 120. The student is admitted to the exam for conditions of fulfillment of the requirements of the curriculum and if for the current educational activity it scored at least 72 points: 66.0 points during practical classes and 6.0 points for writing history diseases. The exam is held according to the schedule at the end of the semester. Exam grade exhibited in the traditional 4-point grading system with subsequent translation into points, at the same time "5" corresponds to 80 points, "4" - 64 points, "3" - 48 points, "2" - 0 points. The exam is credited student if he scored at least 48 out of 80 points. Encouraging points are added to the grade for the discipline implementation of an individual research project (defense of a student thesis 12 points, presentation at the conference 5 points, poster presentation at the conference 4 points, theses reports 3 points). The total score for the discipline cannot exceed 200 points. It is possible to transfer the points received for by the system of non-formal education in accordance with the Regulation.

## 11. Learning resources


### 11.1 Material and technical support

MTS1	Information and communication systems
MTS2	Library funds, archive of radiographs, cardiocograms, computer tomograms, results of laboratory methods of inspection
MTS3	Computers, computer systems and networks
MTS4	Simulation center (obstetric phantom for childbirth, female pelvis phantom, newborn baby phantom for primary resuscitation with a set of equipment).

MTS5	Medical facilities / premises and equipment (clinics, hospitals, etc.).
MTS6	Multimedia, video and sound reproduction, projection equipment (video cameras, projectors, screens, smart boards, etc.)
MTS7	Software (to support distance learning, Online surveys, virtual labs, virtual patients, to create computer graphics, modeling, etc., etc.)
MTS8	Medical equipment (fetal heart monitor, ultrasound machine, digital mammogram, laryngoscope, pinlon, height meter, scales, centimeter tape, tasometer, tonometer, obstetric stethoscope, etc.)

## 11.2 Information and methodical support

<b>Essential Reading</b>	
1	Obstetrics and gynecology: in two volumes [Текст] : textbook. Vol.1 : Obstetrics / V. I. Gryshchenko, M. O. Shcherbina, B. M. Ventskiivskiyi etc. ; edit. by: V.I. Gryshchenko, M.O. Shcherbina. — 2-nd edition. — K. : AUS Medicine Publishing, 2018. — 392 p. + Гриф МОЗ.
2	USMLE Step 2 CK: Obstetrics/Gynecology [Текст] : Lecture Notes / Editors W.G. Cvetnic, E. Pino. — New York : Kaplan, 2019. — 291 p.
3	Obstetric phantom [Електронний ресурс] : tutorial / I. M. Nikitina, C. A. Smiian, N. V. Kalashnyk etc. ; edit. I. M. Nikitina. — Sumy : Sumy State University, 2022. — 186 p.
<b>Supplemental Reading</b>	
1	Hacker, N.F. Hacker and Moore's Essentials of Obstetrics and Gynecology [Текст] / N. F. Hacker, J. C. Gambone, C. J. Hobel. — 6th edition. — Philadelphia : Elsevier, 2016. — 497 p.
2	3915 Methodical Instructions for practical work on obstetrics (module I "Physiological obstetrics") [Текст] : for foreign students of the specialty 7.110101 "Medical Care" of the full-time course of study / В. І. Бойко, М. Л. Кузьоменська, С. А. Сміян etc. — Суми : СумДУ, 2015. — 131 с.
3	Evolutionary Thinking in Medicine [Електронний ресурс] : From Research to Policy and Practice / edited by Alexandra Alvergne, Crispin Jenkinson, Charlotte Faurie. — 1st ed. 2016. — Cham : Springer International Publishing, 2016. — (Advances in the Evolutionary Analysis of Human Behaviour).
4	Obstetrics and gynaecology in 2 books [Текст] : підручник. Book 1 : Obstetrics/ V. M. Zaporozhan, V. P. Mishchenko. — Odessa : The Odessa State Medical University, 2013. — 374 с.

	<p style="text-align: center;"><b>UNIVERSITY POLICIES FOR THE COURSE</b> <b>«Obstetrics and Gynecology»</b></p> <p><b>Higher education level</b> The Second Level Of Higher Education, National Qualifications Framework Of Ukraine – The 7th Level, QF-LLL – The 7th Level, FQ-EHEA – The Second Cycle  <b>Major: Educational programme</b> 222 Medicine: Medicine  <b>Year of study</b> 2023  <b>Semester</b> 7 semester  <b>Mode of study</b> full-time course  <b>Language of instruction</b> English</p>
<b>Teacher(s)</b>	Sukhostavets Nataliia Petrivna
<b>Contact</b>	кандидат медичних наук, асистент кафедри акушерства, гінекології та планування сім'ї Сухоставець Наталія Петрівна e-mail: n.sukhostavets@med.sumdu.edu.ua
<b>Time and room for giving consultations</b>	КНП СОР "Обласний клінічний перинатальний центр", щопонеділка 16.00-18.00
<b>Links to online educational platforms</b>	<a href="https://elearning.sumdu.edu.ua/works/7295/nodes/2181595">https://elearning.sumdu.edu.ua/works/7295/nodes/2181595</a> <a href="https://elearning.sumdu.edu.ua/works/7295/nodes/2181665#anchor2181665">https://elearning.sumdu.edu.ua/works/7295/nodes/2181665#anchor2181665</a> <a href="https://elearning.sumdu.edu.ua/works/7295/nodes/2181666#anchor2181666">https://elearning.sumdu.edu.ua/works/7295/nodes/2181666#anchor2181666</a> <a href="https://elearning.sumdu.edu.ua/works/7295/nodes/2181597#anchor2181597">https://elearning.sumdu.edu.ua/works/7295/nodes/2181597#anchor2181597</a> <a href="https://testkrok.org.ua/">https://testkrok.org.ua/</a>
<b>Syllabus</b>	<a href="https://pg.cabinet.sumdu.edu.ua/report/syllabus/1064dc28f322f2ea1c2b9e3d3c62b9453495995">https://pg.cabinet.sumdu.edu.ua/report/syllabus/1064dc28f322f2ea1c2b9e3d3c62b9453495995</a>
<b>Channels for maintaining contact with the group for receiving and working on materials</b>	Mix.sumdu.edu.ua, електронна скринька, viber

## POLICIES

### Academic integrity policy

Participants must complete all tasks according to the course requirements independently. Participants are not allowed to cheat during the written module or summative test. The assignments should not contain plagiarism, facts of fabrication, falsification, cheating. Manifestations of other types of academic dishonesty determined by the Academic Integrity policy are also unacceptable. If a teacher reveals violations of academic integrity by students during the course, the former have the right to take one of the following actions: - to reduce points by up to 40% for practical assignments; - to give recommendations for improving and resubmitting mandatory homework assignments with the reduction of points by up to 25%; - to not accept mandatory homework assignments without the right to resubmit; - set a date for retaking the written module or the summative test with a reduction of points by up to 15%; - to not allow to retake the written module or the summative test.

**Політика щодо використання інструментів штучного інтелекту при виконанні завдань навчальної дисципліни**

Політика використання інструментів штучного інтелекту (ChatGPT, Tome тощо) оголошується викладачем на початку курсу.

Несанкціоноване використання інструментів штучного інтелекту є порушенням академічної доброчесності.

### **Політика щодо використання матеріалів з джерел відкритого доступу**

При використанні здобувачами освіти матеріалів з джерел відкритого доступу для підготовки робіт, визначених силабусом та регламентом навчальної дисципліни, вони обов'язково мають дотримуватись умов ліцензій Creative Commons на використання об'єктів авторського права.

### **Attendance policy**

The student must attend 100% practical and 60% lecture classes. In case of missing classes, the student must make up missed class according to the practice schedule, approved by the department if there is a suitable one order of the dean's office.

### **Deadlines and course retake policy**

In case of an unsatisfactory result, the student has the right to retake twice the semester exam - the first time for the examiner, appointed by the head of the department, the second - the commission which is created by the deanery. Retaking the exam is carried out according to a separate schedule approved by the dean's office. Students, who did not appear for the exam without a good reason, are considered those that received an unsatisfactory rating. Student refusal to perform the examination task is certified as unsatisfactory answer. The student has the right to receive an explanation regarding received assessment.

### **Assessment appeals policy**

The results of the module and semester assessment are subject to appeal. A student must lodge an appeal to the director/dean on the day of certification or after announcing the results, but no later than the next working day. The appeal commission is established by the director/dean's order. The appeal commission's decision may change the grade in case of violations revealed during the attestation.

## **Assessment criteria**

### **Assessment policy**

When mastering the materials of the student module for each practical lesson is assigned a maximum of 5 points (score is set in the traditional 4-point grading system). At the end of the training year, the arithmetic mean of student performance is calculated. The maximum number of points that the student can receive in practical classes during the academic year - 110. Number of points student is calculated by the formula 110 multiplied by the arithmetic mean and divided by 5. By writing the history of the disease are assigned the following points: "5" - 5 points, "4" - 4 points, "3" - 3 points, "2" - 0 points. Protection of medical history: "5" - 5 points, "4" - 4 points, "3" - 3 points, "2" - 0 points. In general, for history illness student can get a maximum of 10 points, the minimum required score of 6. Maximum the number of points for the current educational activities of the student - 120. The student is admitted to the exam for conditions of fulfillment of the requirements of the curriculum and if for the current educational activity it scored at least 72 points: 66.0 points during practical classes and 6.0 points for writing history diseases. The exam is held according to the schedule at the end of the semester. Exam grade exhibited in the traditional 4-point grading system with subsequent translation into points, at the same time "5" corresponds to 80 points, "4" - 64 points, "3" - 48 points, "2" - 0 points. The exam is credited student if he scored at least 48 out of 80 points. Encouraging points are added to the grade for the discipline implementation of an individual research project (defense of a student thesis 12 points, presentation at the conference 5 points, poster presentation at the conference 4 points, theses reports 3 points). The total score for the discipline cannot exceed 200 points. It is possible to transfer the points received for by the system of non-formal education in accordance with the Regulation.

### Alignment of learning outcomes with teaching and learning activities and assessment

#### For 222 Medicine:

Competences/ learning outcomes	Learning outcomes	Types of training	Learning activities	Teaching methods	Material and technical support	Methods and criteria for assessment
PO2	LO1	lect.1-lect.3, pr.tr.1-pr.tr.29	LA4, LA11, LA2, LA5, LA10	TM2, TM3, TM5	MTS1, MTS2, MTS4, MTS5, MTS6, MTS7, MTS8	SA4
PO1	LO2	lect.1-lect.3, pr.tr.1-pr.tr.29	LA4, LA2, LA5, LA10, LA1, LA3, LA9	TM2, TM5, TM6	MTS1, MTS2, MTS3, MTS4, MTS5, MTS6, MTS7, MTS8	SA4, SA2, SA1, SA5
PO4	LO3	lect.1-lect.3, pr.tr.1-pr.tr.29	LA4, LA11, LA8, LA2, LA5, LA10	TM2, TM3, TM4, TM5	MTS1, MTS2, MTS3, MTS4, MTS5, MTS6, MTS7, MTS8	SA4
PO5	LO4	lect.1-lect.3, pr.tr.1-pr.tr.29	LA7, LA12, LA4, LA11, LA8, LA2, LA5, LA10	TM1, TM2, TM3, TM4, TM5	MTS1, MTS2, MTS3, MTS4, MTS5, MTS6, MTS7	SA4
PO3	LO5	lect.1-lect.3, pr.tr.1-pr.tr.29	LA4, LA11, LA2, LA5, LA10	TM2, TM3, TM5	MTS1, MTS2, MTS3, MTS4, MTS5, MTS6, MTS7, MTS8	SA4
PO11	LO6	lect.1-lect.3, pr.tr.1-pr.tr.29	LA7, LA12, LA4, LA11, LA8, LA2, LA5, LA10	TM1, TM2, TM3, TM4, TM5	MTS2, MTS6, MTS8	SA4
PO9	LO7	lect.1-lect.3, pr.tr.1-pr.tr.29	LA4, LA11, LA8, LA2, LA5, LA10	TM2, TM3, TM4, TM5	MTS2, MTS3, MTS7	SA4

Competences/ learning outcomes	Learning outcomes	Types of training	Learning activities	Teaching methods	Material and technical support	Methods and criteria for assessment
PO7	LO8	lect.1-lect.3, pr.tr.1-pr.tr.29	LA4, LA11, LA2, LA5, LA10	TM2, TM3, TM5	MTS2, MTS4, MTS7	SA4
PO10	LO9	lect.1-lect.3, pr.tr.1-pr.tr.29	LA4, LA11, LA2, LA5, LA10	TM2, TM3, TM5	MTS4, MTS8	SA4
PO12	LO10	lect.1-lect.3, pr.tr.1-pr.tr.29	LA4, LA11, LA8, LA2, LA5, LA10, LA1, LA3, LA9	TM2, TM3, TM4, TM5, TM6	MTS2, MTS3, MTS7	SA4, SA2, SA1, SA5
PO6	LO11	lect.1-lect.3, pr.tr.1-pr.tr.29	LA4, LA2, LA5, LA10	TM2, TM5	MTS4, MTS8	SA4
PO19	LO12	lect.1-lect.3, pr.tr.1-pr.tr.29	LA4, LA11, LA2, LA5, LA10	TM2, TM3, TM5	MTS4, MTS7	SA4
PO16	LO13	lect.1-lect.3, pr.tr.1-pr.tr.29	LA4, LA2, LA5, LA10	TM2, TM5	MTS4, MTS8	SA4
PO18	LO14	lect.1-lect.3, pr.tr.1-pr.tr.29	LA4, LA11, LA2, LA5, LA10	TM2, TM3, TM5	MTS2, MTS6, MTS8	SA4
PO14	LO15	lect.1-lect.3, pr.tr.1-pr.tr.29	LA4, LA8, LA2, LA5, LA10, LA6	TM2, TM4, TM5, TM7	MTS1, MTS2, MTS3, MTS4, MTS5, MTS6, MTS7, MTS8	SA4, SA3
PO8	LO16	lect.1-lect.3, pr.tr.1-pr.tr.29	LA4, LA11, LA2, LA5, LA10	TM2, TM3, TM5	MTS1, MTS2, MTS3, MTS4, MTS5	SA4
PO15	LO17	lect.1-lect.3, pr.tr.1-pr.tr.29	LA7, LA12, LA4, LA1, LA3, LA9, LA6	TM1, TM2, TM6, TM7	MTS1, MTS2, MTS3, MTS4, MTS5, MTS6, MTS7, MTS8	SA2, SA1, SA5, SA3
PO13	LO18	lect.1-lect.3, pr.tr.1-pr.tr.29	LA7, LA12, LA4, LA2, LA5, LA10	TM1, TM2, TM5	MTS4, MTS7	SA4
PO21	LO19	lect.1-lect.3, pr.tr.1-pr.tr.29	LA4, LA8, LA2, LA5, LA10	TM2, TM4, TM5	MTS4, MTS6	SA4