

**MINISTRY OF HEALTH OF THE REPUBLIC OF BELARUS**  
Educational Institution  
**BELARUSIAN STATE MEDICAL UNIVERSITY**

**Контрольный  
экземпляр**

**APPROVED**

by Rector of the Educational  
Institution «Belarusian State  
Medical University»

**S.P. Rubnikovich**

26.06.2024  
Reg. # UD-0911-01-22/2425 edu.

**OBSTETRICS AND GYNECOLOGY**

**Curriculum of the educational institution  
in the academic discipline for the specialty**

**1-79 01 01 «General Medicine»**

Curriculum is based on the educational program «Obstetrics and Gynecology», approved 26.06.2024, registration # УД-0911-01-22/2425/уч; on the educational plan in the specialty 1-79 01 01 «General Medicine», approved 15.05.2024, registration # № 7-07-0911-01/2425/mf.

### **COMPILERS:**

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### **RECOMMENDED FOR APPROVAL:**

by the Department Obstetrics and Gynecology of the educational institution «Belarusian State Medical University»  
(protocol # 12 of 13.03.2024);

by the Scientific and Methodological Council of the educational institution «Belarusian State Medical University»  
(protocol #18 of 26.06.2024)

## EXPLANATORY NOTE

«Obstetrics and Gynecology» is the academic discipline of the module «Obstetrics and Gynecology» containing a system of systematized scientific knowledge about the course of physiological and pathological processes, occurring in the female body and conditioned by its anatomical and physiological features, as well as the conception, pregnancy, labor and postpartum period; about the methods of diagnostics, treatment, prevention of complications of the pregnancy, labor, postpartum period, diseases of the fetus and newborn, as well as the diseases of the reproductive organs at different age.

The aim of the discipline «Obstetrics and Gynecology» is formation of specialized professional competencies for rendering of the medical care in gynecological diseases, physiological and pathological pregnancy, labour, puerperium.

The objectives of the discipline «Obstetrics and Gynecology» are to form students' scientific knowledge about physiological and pathological processes occurring in the female body in different age-related periods, as well as in pregnancy, labor and postpartum period, skills and abilities required for:

- examination of pregnant women, parturients, puerperas and gynecologic patients;

- interpretation of the results of laboratory tests, objective clinical methods and imaging techniques;

- making of a diagnosis;

- diagnostics of gestational complications as well as complications of the labor and puerperium;

- diagnostics of gynecological diseases;

- rendering of medical aid in emergency situations presenting of life-threats or health-threats in obstetrics and gynecology.

The knowledge, skills, and abilities acquired during the study of the academic discipline «Obstetrics and Gynecology» are necessary for successful mastering of the following academic disciplines: «Internal Diseases», «Surgical Diseases», «Oncology», «Urology».

Studying the educational discipline «Obstetrics and Gynecology» should ensure the formation of students' specialized competencies: diagnose and apply the principles of the female genital organs pathology treatment, carry on management of pregnancy, provide medical care in childbirth and in the postpartum period, emergency conditions in obstetrics and gynecology.

**As a result of studying the discipline «Obstetrics and Gynecology» the student should**

**know:**

- the basic concepts (principles) of obstetrics and gynecology;

- knowledge and application of the principles of providing obstetrical and gynecological care in the Republic of Belarus to pregnant women, parturients and puerperas, as well as women with gynecological pathology;

- basics of medical ethics and deontology in obstetrics and gynecology;

indications and contraindications for prolongation of the pregnancy in the most common medical and surgical and gynecological diseases;

physiological processes occurring in the female reproductive system at various age-related periods;

physiological processes occurring in a female body in conception, pregnancy, childbirth and the postpartum period;

the physiological course and principles of management of pregnancy, childbirth, and the postpartum period; features of neonatal period;

methods of assessing the state of the functional system «mother – placenta – fetus»; etiology, pathogenesis, classification, clinical manifestations, methods of diagnosis, differential diagnosis, treatment and prevention of complications of pregnancy, labor, postpartum period, major gynecological diseases;

the main stages of surgical operations in obstetrics and gynecology;

principles and methods of general and local anesthesia, pharmacotherapy, including antibiotic therapy, used in obstetrics and gynecology;

fundamentals of medical rehabilitation and management of pregnant women, puerperas, patients with gynecological diseases;

**be able to:**

take medical, reproductive and gynecological history in pregnant women, parturient, puerperas and patients with gynecological diseases;

carry out a general examination and assessment of the general condition of a pregnant woman, parturient, puerperas and patients with gynecological diseases;

conduct an objective external examination of a woman: an external obstetric examination, measurement of the size of the pelvis;

interpret the results of laboratory and instrumental methods of examination;

identify risk factors for obstetric and gynecological pathology;

make a diagnosis in the pathological course of pregnancy, childbirth, the postpartum period, in patients with gynecological diseases;

provide medical care for emergency conditions in obstetrics and gynecology;

**master:**

methods of estimation of gestational age;

methods of estimation of the fetal expected body weight;

maneuvers of external obstetrical examination;

methods of estimation of the girth of the abdomen and height of the uterine fundus;

methods of measurement of the pelvis and assessment of different types of pelvis;

auscultation of the fetal heart sounds;

methods of estimation of blood loss in pregnancy, labor and postpartum, as well as in gynecological patients;

main maneuvers of gynecological examination, including examination of kids and adolescents;

methods of investigations of puberty and pubertal development in adolescents;

methods of diagnosis of external and internal genitalia abnormalities.

**Total number** of hours for the study of the discipline is 294 academic hours. Classroom hours according to the types of studies: lectures – 33 hours (including 9

hours of supervised student independent work (SSIW)), practical classes – 162 hours, student independent work (self-study) – 99 hours.

Intermediate assessment is carried out according to the syllabus of the specialty in the form of examination (8, 10 semester).

### ALLOCATION OF ACADEMIC TIME ACCORDING TO SEMESTERS OF STUDY

Code, name of the specialty	semester	Number of academic hours						Form of intermediate assessment
		total	in-class	including			out-of-class self-studies	
				lectures	supervised student independent work	practical classes		
1-79 01 01 «General Medicine»	7	84	57	9	-	48	27	-
	8	72	45	6	3	36	27	examination
	9	72	48	3	3	42	24	-
	10	66	45	6	3	36	21	examination
<b>Total hours</b>		<b>294</b>	<b>195</b>	<b>24</b>	<b>9</b>	<b>162</b>	<b>99</b>	

## THEMATIC PLAN

Section (topic) name	Number of class hours	
	lectures	practical
<b>1. Organization of obstetric and gynecological medical care. Basic principles of ethics and deontology in obstetrics and gynecology</b>	<b>1,5</b>	<b>3</b>
<b>2. Anatomical and physiological peculiarities of the female reproductive system</b>	-	<b>3</b>
<b>3. Perinatology</b>	-	<b>6</b>
<b>4. Physiological obstetrics</b>	<b>1,5</b>	<b>18</b>
4.1. Cause and management of normal (physiological) pregnancy	1,5	6
4.2. Cause and management of normal (physiological) labor	-	6
4.3. Cause and management of physiological postpartum period	-	6
<b>5. Pathologic obstetrics</b>	<b>15</b>	<b>54</b>
5.1. Preterm and postterm pregnancy	1,5	2
5.2. Pregnancy and labor in women with medical illness and gynecological disorders	3	18
5.3. Fetal malpositions and malpresentations	-	4
5.4. Gestational complications caused by dysadaptation in pregnancy	3	6
5.5. Hemorrhage in pregnancy	1,5	6
5.6. Contracted pelvis	1,5	2
5.7. Maternal and neonatal birth injures		2
5.8. Multiple pregnancy	-	2
5.9. Pregnancy and labor in adolescent age	-	2
5.10. Abnormal uterine action	-	2
5.11. Operative obstetrics	3	2
5.12. Abnormalities of the puerperium	1,5	6
<b>6. Gynecology</b>	<b>15</b>	<b>72</b>
6.1. Main symptoms of gynecological diseases. Examination methods of a gynecologic patient	-	6
6.2. Malposition of the female genitals	1,5	6
6.3. Menstrual function and its disorders	-	12
6.4. Neuroendocrine syndromes in gynecology	3	6
6.5. Inflammatory diseases of the female genitals	3	12
6.6. Background, premalignant and benign lesions of the female reproductive organs	3	12
6.7. Gynecological diseases requiring an urgent medical aid	3	6
6.8. Operative gynecology	-	6

Section (topic) name	Number of class hours	
	lectures	practical
6.9. Infertility and family planning issues (contraception)	1,5	6
<b>7. Gynecologic issues from birth to adolescence</b>	-	<b>6</b>
<b>Total hours</b>	<b>33</b>	<b>162</b>

## CONTENT OF THE EDUCATIONAL MATERIAL

### **1. Organization of obstetric and gynecological medical care. Basic principles of ethics and deontology in obstetrics and gynecology**

The main stages of the development of obstetrics and gynecology.

Safe motherhood, Reproductive and Child Health Care, the principles of organization of obstetric and gynecological medical care. Gynecological care for children and adolescents.

Epidemiological safety in the medical care.

Ensuring the sanitary and epidemic well-being of the population.

Demographic policy of the Republic of Belarus. Current demographic trends in the World and in the Republic of Belarus.

The structure and main indicators (indexes) of the women's clinic, maternity hospitals, obstetric and gynecological departments. Sanitary and epidemiological regime of maternity hospitals.

Examination of a pregnant woman, maternity patients and patients with gynecological diseases. Specialized obstetric and gynecological care. Medical and genetic counseling. Principles of treatment and medical rehabilitation in gynecology.

Maternal mortality and ways to reduce it.

Moral and ethical standards.

Examination of patients (taking of complaints and history, physical examination), planning of laboratory tests and instrumental examination, interpretation of the results of laboratory tests and instrumental images.

### **2. Anatomical and physiological peculiarities of the female reproductive system**

Peculiarities of development and structure of female genitals at different age-related periods.

External and internal genitals. Mammary glands.

Physiological changes in the female reproductive system at different age periods, in pregnancy and childbirth.

Neuroendocrine regulation of the menstrual cycle.

Female pelvis. Pelvic floor.

Examination of patients (taking of complaints and history, physical examination), planning of laboratory tests and instrumental examination, interpretation of the results of laboratory tests and instrumental images.

Measurement (on simulation equipment and at the patient's bed) of the external dimensions of the pelvis, Solovyov index, Michaelis rhombus.

### **3. Perinatology**

The objective and aims of perinatology.

Perinatal mortality and the ways of its decrease.

Perinatal care of the fetus and newborn.

Critical periods in the embryo and fetus development.

Fetus developmental abnormalities and placental pathology: the influence of harmful environmental factors on the body of the mother and fetus; the effect of drugs on the body of the mother and fetus, antibiotic therapy during pregnancy, congenital malformations of the fetus, placental insufficiency, intrauterine infection, fetal hypoxia and perinatal asphyxia, fetal growth retardation, hemolytic disease of the newborn, abnormalities of the placenta and umbilical cord, polyhydramnios and oligohydramnios.

Transient conditions of the newborn.

Examination of patients (taking of complaints and history, physical examination), planning of laboratory tests and instrumental examination, interpretation of the results of laboratory tests and instrumental images to identify fetoplacental insufficiency, formulation of a diagnosis, preparation of a treatment plan for hypoxia and fetal growth retardation in outpatient and inpatient settings.

### **4. Physiological obstetrics**

#### **4.1. Cause and management of normal (physiological) pregnancy**

Formation of the functional system «mother – placenta – fetus»: development and functions of the placenta, amniotic fluid, umbilical cord.

Physiological changes in a female body during pregnancy. The basics of rational nutrition of pregnant women, the lifestyle and hygiene of pregnant women. Antenatal advice. Prenatal counselling.

Diagnosis of pregnancy, estimation of gestational age and prediction of expected date of delivery.

Examination of pregnant women: general and special history, objective examination, clinical and laboratory investigations.

Fetal physiology: the fetus in certain periods of intrauterine development, critical periods in the development of the embryo and fetus. Methods for clinical evaluation of fetal well-being.

Examination of patients (taking of complaints and history, physical examination), planning of laboratory tests and instrumental examination, interpretation of the results of laboratory tests and instrumental images and techniques.

Methods of obstetrical examinations (on simulation equipment and at the patient's bed): Leopold's maneuvers, abdominal girth and symphysis fundal uterine height.

#### **4.2. Cause and management of normal (physiological) labor**

The main causes of onset of labor.

Components of the birth: the fetus as an object of the labor (fetal skull), birth canal, birth powers. False labor. The preliminary stage.

The clinical course of labor.

Methods for assessing the maternal and fetal well-being during labor, interpretation of the results.



Management of labor in the first stage. The partograph.

Management of labor in the second stage: normal mechanism of labor in occipital presentation, primary care of the newborn.

Management of labor in the third stage. Determination of signs of the placental separation.

Anesthesia of labor: modern methods, indications and contraindications.

Examination of women in labor, taking of patient's complaints and anamnesis, physical examination, planning for laboratory and instrumental examination, interpretation of the results of laboratory and instrumental investigations to assess the well-being of the mother and fetus during labor, making of a diagnosis, planning of labor and type of delivery, planning of analgesia and anesthesia in labor.

### **4.3. Cause and management of physiological postpartum period**

Changes in a woman's body in the puerperium.

Clinical course and management of the puerperium.

Anatomical and physiological features of the term newborn.

The principles of breastfeeding.

## **5. Pathologic obstetrics**

### **5.1. Preterm and postterm pregnancy**

Etiology, pathogenesis, diagnosis, prevention of pre-term and post-term labor.

Management of preterm and postterm pregnancy and labor.

Management of preterm and postterm labor.

Differential diagnosis of prolonged and postterm pregnancy.

Anatomical and physiological features of premature and post-term newborns.

Examination of pregnant women and women in labor, taking of patient complaints and anamnesis, physical examination, planning of laboratory and instrumental examination, interpretation of the results of laboratory and instrumental investigations, making of the diagnosis; planning of management, management of pregnancy, premature and postterm labor, indications for selective induction of labor, indications for cesarean section.

### **5.2. Pregnancy and labor in women with medical illness and gynecological disorders**

Heart disease in pregnancy: the course and management of pregnancy, labor, and the puerperium in women with congenital and acquired heart defects, chronic hypertension.

Urinary tract disease in pregnant women: the course and management of pregnancy, labor, and the puerperium with pyelonephritis, glomerulonephritis, urolithiasis.

Hematological disorders in pregnancy: the course and management of pregnancy, labor, and the puerperium in anemia, hereditary and congenital thrombophilias.

Endocrine pathology in pregnancy: the course and management of pregnancy, labor, and the puerperium in women with diabetes mellitus and thyroid disease.

Infections in pregnancy (cytomegalovirus and herpes, influenza, rubella, measles, listeriosis, tuberculosis, toxoplasmosis): the course and management of

pregnancy, labor, and the puerperium; complications for the mother, fetus, and newborn.

Acute surgical pathology in pregnancy: the course and management of pregnancy and labor in appendicitis, pancreatitis, cholecystitis, intestinal obstruction.

Gynecological diseases in pregnancy: the course and management of pregnancy, labor, and the puerperium in uterine fibroids and ovarian tumors.

Indications for termination of pregnancy in extragenital and gynecological pathology.

Examination of pregnant women with medical diseases and disorders of the reproductive system (taking of complaints and anamnesis, physical examination), planning for laboratory and instrumental examination, interpretation of the results of laboratory and instrumental investigations, making of a diagnosis, management, determination of indications for termination of pregnancy, planning of management of pregnancy, childbirth, and the postpartum period.

### **5.3. Fetal malpositions and malpresentations**

Pregnancy and labor in breech presentation: etiology, classification, diagnosis and prevention of breech presentation; course of pregnancy and gestational complications; pregnancy management, external cephalic version; course and management of vaginal breech labor, assisted vaginal delivery.

Pregnancy and labor in transverse and oblique fetal lie.

Malpresentations: occiput-posterior, brow, face. Mechanism of labor. Complications

Examination of pregnant women, taking of patient's complaints and anamnesis, physical examination, planning of laboratory and instrumental examination, interpretation of the results of laboratory and instrumental investigations; making of the diagnosis; planning of the management of labor; indications for operative delivery.

### **5.4. Gestational complications caused by dysadaptation in pregnancy**

Vomiting in pregnancy: clinical signs, management, indications for termination of pregnancy, treatment, prevention, rehabilitation.

Preeclampsia: pathogenesis and classification, clinical manifestations and diagnosis, assessment of severity, treatment, management of pregnancy and labor, complications for mother and fetus, prevention. Emergency medical care for preeclampsia.

Eclampsia: pathogenesis and classification, stages, clinical manifestations and diagnosis, treatment, management of pregnancy and labor, complications for mother and fetus, prevention. Emergency medical care.

HELLP syndrome: etiology, pathogenesis, clinical manifestations, diagnosis, differential diagnosis, complications for mother and fetus, treatment, obstetric management.

Acute fatty liver in pregnancy: clinical manifestations, diagnosis, differential diagnosis, complications for mother and fetus, treatment, obstetric management.

Cholestasis in pregnancy: clinical manifestations, diagnosis, differential diagnosis, complications for mother and fetus, treatment, obstetric management.

Examination of pregnant women, taking of patient's complaints and anamnesis, physical examination, planning of laboratory and instrumental examination, interpretation of the results of laboratory and instrumental investigations in order to conduct differential diagnosis of the disease and assess well-being of the fetus; making of the diagnosis; management; planning of delivery and type of delivery, indications for emergent delivery.

### **5.5. Hemorrhage in pregnancy**

Etiology, pathogenesis, classification, clinical signs, diagnosis of bleeding during pregnancy, labor and postpartum period, management.

Hemorrhage in the early pregnancy.

Placenta previa.

Placenta abruptio.

Hemorrhage in the third stage of labor and early postpartum period. Manual techniques.

Emergency medical care for hemorrhage in obstetrics.

Disseminated intravascular coagulation: risk factors, clinical manifestations, emergency medical care, prevention, rehabilitation.

Hemorrhagic shock: risk factors, clinical manifestations, emergency medical care, prevention, rehabilitation.

Amniotic fluid embolism: risk factors, clinical manifestations, emergency medical care, prevention, rehabilitation.

Examination of patients in obstetric hemorrhage, taking of patient's complaints and anamnesis, physical examination, planning of laboratory and instrumental examination, interpretation of the results of laboratory and instrumental investigations; assessment of blood loss and severity of bleeding; making of a diagnosis; emergency medical care (stages and methods of hemostasis), indications for surgical hemostasis.

### **5.6. Contracted pelvis**

Etiology, classification, diagnosis and prevention of contracted pelvis.

The course and management of pregnancy and labor in various forms of anatomically contracted pelvis.

Causes and methods of diagnosis of clinically contracted pelvis (cephalopelvic disproportion). Management of labor in women with cephalopelvic disproportion. Complications for the mother and fetus.

Examination of patients, taking of complaints and anamnesis, physical examination, planning of laboratory and instrumental examination in pregnancy and labor, interpretation of the results of laboratory and instrumental investigations for diagnosis of anatomically and clinically contracted pelvis; making of a diagnosis, plan of labor, indications for cesarean section

### **5.7. Maternal and neonatal birth injuries**

Causes, diagnostic methods, prevention of maternal birth injuries (uterine rupture, tissue injuries of the birth canal, postpartum fistulas, rupture of the pubic symphysis).

Causes, diagnostic methods, prevention of fetal birth injuries (cephalohematoma, intracranial hemorrhage, skeletal injuries, peripheral and central nervous system injuries, internal organ injuries).

Examination of puerperas, taking of complaints and anamnesis, physical examination, planning of laboratory and instrumental examination, interpretation of the results of laboratory and instrumental investigations in maternal birth trauma, making of a diagnosis, planning of urgent medical interventions.

### **5.8. Multiple pregnancy**

Etiology, pathogenesis, diagnosis of multiple pregnancy.

The course and management of multiple pregnancy.

The course and management of labor.

Examination of pregnant women, taking of complaints and anamnesis, physical examination, planning of laboratory and instrumental examination, interpretation of the results of laboratory and instrumental investigations, making of a diagnosis; management of a pregnant woman; indications for operative delivery.

### **5.9. Pregnancy and labor in adolescent age**

The course and management of pregnancy, labor, and the postpartum period in adolescents. Examination of pregnant women, taking of complaints and anamnesis, physical examination, planning of laboratory and instrumental examination, interpretation of the results of laboratory and instrumental investigations, making of a diagnosis; management of a pregnant woman; indications for operative delivery.

### **5.10. Abnormal uterine action**

Etiology, pathogenesis, classification, diagnosis of abnormal uterine action, influence on a course of labor, well-being of the fetus and newborn.

Clinical manifestations and methods of treatment of pathological preliminary period, uterine inertia (hypotonic uterine action), incoordinate uterine action, precipitate labor, tonic uterine action.

Examination of the parturients, taking of complaints and anamnesis, physical examination, planning of laboratory and instrumental examination of a parturient, interpretation of the results of laboratory and instrumental investigations to diagnose and make a differential diagnosis of labor abnormalities, assessment of maternal and fetal well-being, making of a diagnosis; management, indications for cesarean section.

### **5.11. Operative obstetrics**

Caesarean section: development of cesarean section, types of cesarean section, indications, contraindications and conditions for surgery, complications for mother and fetus, management of pregnant women with a previous uterine scar.

Obstetric forceps: types and construction of obstetric forceps; indications, contraindications, prerequisites for applying obstetric forceps; rules and stages of obstetric forceps; complications for mother and fetus.

Vacuum extraction: indications, contraindications, conditions for surgery, procedure, complications for mother and fetus.

Examination of parturient, taking of patient complaints and anamnesis, physical examination, planning of laboratory and instrumental examination, interpretation of the results of laboratory and instrumental investigations, making of a

diagnosis, preparation of a surgical intervention plan, indications for cesarean section, obstetric forceps and vacuum extraction.

### **5.12. Abnormalities of the puerperium**

Etiology, pathogenesis, classification of postpartum puerperal infection (postpartum pyrexia).

Clinical signs and principles of treatment of postpartum puerperal infection (chorioamnionitis, postpartum wound infection, endometritis, thrombophlebitis, mastitis, peritonitis, sepsis, endotoxic shock).

Examination of puerperas, taking of patient complaints and medical history, physical examination, planning of laboratory and instrumental examination, interpretation of the results of laboratory and instrumental investigations to identify complications of the postpartum period; making of a diagnosis; treatment plan; indications for surgery.

## **6. Gynecology**

### **6.1. Main symptoms of gynecological diseases. Examination methods of a gynecologic patient**

Identification of main symptoms of gynecological disorders: pain, pathological discharge, itching, menstrual irregularity, infertility, dysfunction of organs: classification, clinical picture, diagnosis.

General, special and additional methods of examination of patients with gynecological diseases. Gynecological examination: speculum examination, bimanual examination, vaginal-abdominal examination.

Special gynecological examination of patients in childhood and adolescence.

Clinical methods of examination: taking history, general examination and objective examination, palpation of the mammary glands, examination of the external and internal genitalia.

Methods of ovarian function research: functional diagnostic tests, determination of hormone concentrations in blood plasma and urine, hormonal tests.

Morphological research methods.

Endoscopic examination methods: vaginoscopy, colposcopy, hysteroscopy, culdoscopy, diagnostic laparoscopy. Laparoscopy as a method of surgical treatment.

Imaging techniques in gynecology: X-ray (hysterosalpingography, pituitary).

Computerized tomography. Magnetic resonance imaging.

Transabdominal transvaginal ultrasound.

Examination of patients, taking of patient's complaints and anamnesis, planning of laboratory and instrumental examination, interpretation of the results of laboratory and instrumental investigations; making of a diagnosis; management; indications for surgical intervention, preparation for operative intervention, filling of medical charts.

### **6.2. Malposition of the female genitals**

Pathogenesis, classification, diagnosis, methods of conservative and surgical treatment of displacement of the female genital organs.

Pelvic organ prolaps: classification, diagnosis, methods of conservative and surgical treatment.

Examination of patients, taking of patient's complaints and anamnesis, planning of laboratory and instrumental examination, interpretation of the results of laboratory and instrumental investigations; making of a diagnosis; management; indications for surgical intervention, preparation for operative intervention, filling of medical charts.

### **6.3. Menstrual function and its disorders**

Neuroendocrine regulation of the menstrual cycle.

Etiology, pathogenesis, classification of menstrual disorders.

Clinical manifestations, diagnosis, differential diagnosis, treatment methods, prevention of menstrual disorders (amenorrhea, dysmenorrhea, abnormal uterine bleeding in juvenile, reproductive and postmenopausal periods).

Examination of patients, taking of patient complaints and anamnesis, planning of laboratory and instrumental examination, interpretation of the results of laboratory and instrumental investigations; making of the diagnosis; management, indications for surgical hemostasis in abnormal uterine bleeding, prevention of complications.

### **6.4. Neuroendocrine syndromes in gynecology**

Etiology, pathogenesis, classification, clinical manifestations, diagnosis, differential diagnosis, methods of treatment of premenstrual and menopausal syndromes, congenital adrenal hyperplasia, polycystic ovary syndrome.

Examination of patients, taking of patient complaints and anamnesis, planning of laboratory and instrumental examination, interpretation of the results of laboratory and instrumental investigations; making of a diagnosis; treatment; indications for surgical intervention.

### **6.5. Inflammatory diseases of the female genitals**

Etiology, pathogenesis, classification, diagnosis, prevention of inflammatory diseases of the female genital organs.

The course and principles of treatment of inflammatory diseases of non-specific etiology (vulvitis, Bartholinitis, colpitis, cervicitis, endometritis, salpingoophoritis, parametritis, pelvioperitonitis).

The course and principles of treatment of inflammatory diseases of specific etiology (gonorrhea, trichomoniasis, tuberculosis, bacterial vaginosis, candidiasis, chlamydia, mycoplasmosis, genital herpes).

Rehabilitation of women after pelvic inflammatory disease.

Bacterioscopic examination of samples from the vagina, cervical canal and urethra.

Examination of patients, taking of patient complaints and anamnesis, planning of laboratory and instrumental examination, interpretation of the results of laboratory and instrumental investigations; making of a diagnosis; treatment; indications for surgical intervention.

### **6.6. Background, premalignant and benign lesions of the female reproductive organs**

Classification, clinical manifestations, diagnosis, differential diagnosis, principles of treatment and prevention of background and premalignant diseases of the external genitalia, cervix and endometrium.

Benign tumors of the external genitalia and vagina.

Uterine fibroids: modern theories of pathogenesis, classification, diagnosis, clinical manifestations, treatment, surgery.

Endometriosis: modern theories of pathogenesis, classification, diagnosis, clinical manifestations, treatment, surgery.

Ovarian neoplasms: modern theories of pathogenesis, classification, diagnosis, clinical manifestations, treatment, surgery.

Taking samples from the endocervix and exocervix for cytological examination (PAP-smear test).

Examination of patients, taking of patient complaints and anamnesis, planning of laboratory and instrumental examination, interpretation of the results of laboratory and instrumental investigations; making of a diagnosis; treatment; indications for surgical intervention.

### **6.7. Gynecological diseases requiring an urgent medical aid**

Clinical manifestations, diagnosis, differential diagnosis of ectopic pregnancy, ovarian apoplexy, ovarian torsion, necrosis of the myomas. Management of patients with gynecological diseases requiring urgent medical care. Rehabilitation.

Examination of patients, taking of patient complaints and anamnesis, planning of laboratory and instrumental examination, interpretation of the results of laboratory and instrumental investigations; making of a diagnosis; treatment; indications for surgical intervention.

### **6.8. Operative gynecology**

Perioperative management: preoperative preparation and management of patients in the postoperative period, rationale for preoperative investigations.

Typical gynecological operations on the uterus, uterine adnexa, pelvic organ prolaps. Reconstructive plastic surgery. Endoscopic gynecology.

Rehabilitation of patients after gynecological diseases after undergoing surgical interventions on the organs of the reproductive system.

Examination of patients, taking of patient complaints and anamnesis, planning of laboratory and instrumental examination, interpretation of the results of laboratory and instrumental investigations; making of a diagnosis; treatment; indications for surgical intervention.

### **6.9. Infertility and family planning issues (contraception)**

The aim and objectives of reproductive medicine. The purpose and objectives of family planning.

Organization of medical and socio-psychological care to a married couple. The causes of female and male infertility.

Methods of diagnosis and principles of treatment of female infertility.

Assisted reproductive technologies.

Medical abortion: social and medical aspects of the problem, methods of termination of pregnancy in early and late terms, indications, contraindications, complications, effects on reproductive function, prevention, rehabilitation.

Contraception: classification of methods and means of contraception, traditional methods, intrauterine contraception, principle of action and method of use of hormonal contraceptives of different groups, sterilization.

Contraception in adolescence.

Examination of patients, taking of patient complaints and anamnesis, planning of laboratory and instrumental examination, interpretation of the results of laboratory and instrumental investigations; making of a diagnosis; treatment in infertility; indications for surgical intervention. Determination of the adequate and efficient contraception in patients at different age and preparation of a treatment plan in case of complications as a result of contraceptives.

### **7. Gynecologic issues from birth to adolescence**

Disorders of sexual development: precocious puberty, delayed puberty, absence of sexual development. Etiopathogenesis, classification, methods of diagnosis of puberty disorders.

Genital abnormalities: etiopathogenesis, classification, diagnostic methods, clinical manifestations, methods of treatment.

Genital injuries.

Inflammatory diseases in childhood and adolescence: etiopathogenesis, classification, diagnostic methods, clinical manifestations, treatment methods, prevention.

Benign tumors in childhood and adolescence.

Examination of patients, taking of patient complaints and anamnesis, planning of laboratory and instrumental examination, interpretation of the results of laboratory and instrumental investigations; making of a diagnosis; treatment; indications for surgical intervention.



### ACADEMIC DISCIPLINE CURRICULAR CHART

Section, topic #	Section (topic) name	Number of hours		Supervised student independent work	Practical skills	Form of control	
		lectures	practical (laboratory or seminars)			of practical skills	of current / intermediate assessment
<b>7 semester</b>							
	<b>Lectures</b>	<b>9</b>	-	-			
1	Organization of obstetric and gynecological care. Principles of ethics and deontology in obstetrics and gynecology	1,5	-	-			
4.1	The course and management of physiological pregnancy	1,5	-	-			
5.1	Preterm and postterm pregnancy	1,5	-	-			
5.2	Pregnancy and labor in women with cardiovascular diseases and blood disorders	1,5	-	-			
5.2	Pregnancy and labor in women with urinary diseases and endocrine pathology	1,5	-	-			
5.5	Obstetrical hemorrhages	1,5	-	-			
	<b>Practical lessons</b>		<b>48</b>				
1. 2.	Organization of obstetric and gynecological medical care. Basic principles of ethics and deontology in obstetrics and gynecology Anatomical and physiological peculiarities of the female reproductive system	-	6	-		Assessment using electronic-mechanical and robot simulators; performing a	test; electronic test; interview; situational tasks

						practical skill in patients	
3.	Perinatology	-	6	-			test; electronic test; interview; situational tasks
4.1	Cause and management of normal (physiological) pregnancy	-	6	-	1. Maneuvers of external obstetrical examination (Leopold's maneuvers); 2. Estimation of gestational age; 3. Estimation of the fetal expected body weight; 4. Estimation of the girth of the abdomen and height of the uterine fundus.	Assessment using electronic-mechanical and robot simulators; performing a practical skill in patients, situational task	test; electronic test; interview; situational tasks
4.2	Cause and management of normal (physiological) labor	-	6	-	1. Evaluation of the cardiotocogram (CTG). 2. Determination of signs of placental separation . 3. Assessment of the placenta and blood loss in labor.	Situational task Assessment using electronic-mechanical and robot simulators; performing a practical skill in patients	test; electronic test; interview; situational tasks
4.3	Cause and management of physiological postpartum period	-	6	-			test; electronic test; interview; situational tasks

5.5	Hemorrhage in pregnancy	-	6	-	Assisted expulsion of the placenta	Assessment using electronic-mechanical and robot simulators	test; electronic test; interview; situational tasks
5.4	Gestational complications caused by dysadaptation in pregnancy	-	6	-			test; electronic test; interview; situational tasks
5.1	Preterm and postterm pregnancy	-	6	-			test; electronic test; interview; situational tasks
5.8	Multiple pregnancy						test; interview; situational tasks
5.9	Pregnancy and labor in adolescent age						test; interview; situational tasks
<b>8 semester</b>							
	<b>Lectures</b>	<b>6</b>	<b>-</b>	<b>3</b>			
5.4	Preeclampsia. Eclampsia	1,5	-	1,5			situational task
5.6	Contracted pelvis.	1,5	-	-			
5.7	Birth trauma of the mother and fetus						
5.11	Operative delivery	1,5	-	1,5			testing
5.12	Postpartum puerperal infections	1,5	-	-			
<b>Practical lessons</b>							
			<b>36</b>				
5.2	Pregnancy and labor in women with cardiovascular diseases and blood disorders	-	6	-			test; electronic test; interview; situational tasks
5.2	Pregnancy and labor in women with urinary system diseases and endocrine pathology	-	6	-			test; electronic test; interview; situational tasks
5.2	Pregnancy and labor in women with infectious diseases and diseases of the reproductive system	-	6	-			test; electronic test; interview; situational tasks
5.3	Fetal malpositions and malpresentations	-	6	-			test; electronic test; interview; situational tasks
5.6	Contracted pelvis						test; interview; situational tasks

5.7	Maternal and neonatal birth injures	-	6	-			test; electronic test;
5.10	Abnormal uterine action						examination;
5.11	Operative obstetrics						situational tasks test; electronic test; interview; situational tasks
5.12	Abnormalities of the puerperium	-	6	-			test; electronic test; interview; situational tasks
<b>9 semester</b>							Exam
<b>Lectures</b>		<b>6</b>	<b>-</b>	<b>3</b>			
6.1	Main symptoms of gynecological diseases. Examination methods of a gynecologic patient	1,5		1,5			
6.3	Menstrual function and its disorders	1,5		1,5			
6.4	Neuroendocrine syndromes in gynecology	1,5	-	1,5			testing
6.5	Inflammatory diseases of the female genital organs	1,5	-	1,5			assessment oral answer
<b>Practical lessons</b>			<b>42</b>				
6.1	Main symptoms of gynecological diseases. Examination methods of a gynecologic patient	-	6	-	Gynecological examination (speculum examination, bimanual examination)	Assessment using electronic-mechanical and robot simulators	test; electronic test; interview; situational tasks
6.2	Malposition of the female genitals	-	6	-			test; electronic test; interview; situational tasks
6.3	Menstrual function and its disorders: neurohumoral regulation of the menstrual cycle, amenorrhea, dysmenorrhea	-	6	-			test; electronic test; interview; situational tasks

6.3	Menstrual function and its disorders: abnormal uterine bleeding of the juvenile, reproductive and menopausal periods	-	6	-			test; electronic test; interview; situational tasks
6.4	Neuroendocrine syndromes in gynecology	-	6	-			test; electronic test; interview; situational tasks
6.5	Inflammatory diseases of the female genitals with nonspecific etiology.	-	6	-	Taking biological samples for bacterioscopic examination from the vagina, cervical canal and urethra	Assessment using electronic-mechanical and robot simulators	test; electronic test; interview; situational tasks
6.5	Inflammatory diseases of the female genitals with nonspecific etiology.	-	6	-	Taking biological samples for bacterioscopic examination from the vagina, cervical canal and urethra	Assessment using electronic-mechanical and robot simulators	test; electronic test; interview; situational tasks
<b>10 semester</b>							
	<b>Lectures</b>	<b>6</b>	<b>-</b>	<b>3</b>			
6.2	Malpositions of the female genital organs	1,5	-	-			
6.6	Background, precancerous and benign neoplasms of the female reproductive system	1,5	-	1,5			assessment oral answer
6.7	Gynecological diseases requiring urgent medical care	1,5	-	1,5			testing
6.9	Infertility. Family planning	1,5	-	-			
<b>Practical lessons</b>							
			<b>36</b>				
7	Gynecologic issues from birth to adolescence (Juvenile gynecology)	-	6	-			test; electronic test; interview; situational tasks

6.6	Background and premalignant lesions of the female reproductive organs	-	6	-	Taking samples from the endocervix and exocervix for cytological examination (PAP-smear test)	Assessment using electronic-mechanical and robot simulators	test; electronic test; interview; situational tasks
6.6	Benign lesions of the female reproductive organs	-	6	-			test; electronic test; interview; situational tasks
6.7	Gynecological diseases requiring urgent medical care	-	6	-			test; electronic test; interview; situational tasks
6.8	Operative gynecology	-	6	-			test; electronic test; interview; situational tasks
6.9	Infertility. Family planning issues	-	6	-			test; electronic test; interview; situational tasks
		<b>24</b>	<b>162</b>	<b>9</b>			<b>Exam</b>

\*This is a mandatory form of current certification

## INFORMATION AND INSTRUCTIONAL UNIT

### LITERATURE

#### **Basic (relevant):**

1. DC Dutta's textbook of obstetrics including perinatology and contraception / ed. by H. Konar. – New Delhi : The Health Sciences Publisher, 2018. – 631 p.
2. Obstetrics : textbook / ed. by V. E. Radzinskiy, A. M. Fuks, Ch. G. Gagaev. – Москва : Гэотар-Медиа, 2019. – 876 p.

#### **Additional:**

3. DC Dutta's textbook of gynecology including contraception / ed. by H. Konar. – 7 ed. – New Delhi : The Health Sciences Publisher, 2016.
4. Obstetrics and gynecology : textbook. In 2 vol. V. 1 : Obstetrics / Gryshchenko, Valentyn Ivanovych [и др.] ; ed. V. I. Gryshchenko, M. O. Shcherbina. – 2 ed. – Kyiv : AUS Medicine Publishing, 2018. – 392 p.
5. Obstetrics and gynecology : textbook. In 2 vol. V. 2 : Gynecology / Gryshchenko, Valentyn Ivanovych [и др.] ; ed. V. I. Gryshchenko, M. O. Shcherbina. – 2 ed. – Kyiv : AUS Medicine Publishing, 2018. – 352 p.
6. Акушерство : вопросы беременности, родов и послеродового периода = Obstetrics : the issues of pregnancy, labor and puerperium : учеб.-метод. пособие / Т. А. Смирнова и др. – Минск : БГМУ, 2018. – 160 p.
7. Смирнова, Т. А. Схема написания истории болезни гинекологической больной = Composing a gynecological history : метод. рекомендации. – Минск : БГМУ, 2016. – 20 p.
8. Смирнова, Т. А. Схема написания истории родов= Labor case history scheme : метод. рекомендации. – Минск: БГМУ, 2015. – 16 p.
9. Смирнова, Т. А. Патология в акушерстве : избранные вопросы = Obstetrical pathology : selected issues : учеб.-метод. пособие. – Минск : БГМУ, 2021. – 56 с.

### **METHODOLOGICAL RECOMMENDATIONS FOR THE ORGANIZATION AND PERFORMANCE OF STUDENT INDEPENDENT WORK IN THE ACADEMIC DISCIPLINE**

The time allocated for independent work can be used by students for:

- preparing for lectures and practical classes;
- preparing for colloquiums, tests and exams in the academic discipline;
- studying of the topics (issues) designed for independent work;
- solving situational tasks;
- performing scientific research;
- preparing topical reports, abstracts, presentations;
- mastering practical skills;
- taking notes of educational literature;
- compilation of a thematic selection of literary sources, Internet sources.

**METHODOLOGICAL RECOMMENDATIONS FOR THE ORGANIZATION AND PERFORMANCE OF SUPERVISED STUDENT INDEPENDENT WORK IN THE ACADEMIC DISCIPLINE**

Main forms of supervised student independent work:  
 preparation and presentation of abstracts;  
 studying topics and problems that have not been discussed at the lectures;  
 taking notes of original sources (sections of anthologies, collections of documents, monographs, textbooks).

**LIST OF AVAILABLE DIAGNOSTIC TOOLS**

The following forms are used for competence assessment:  
 interview;  
 situational tasks;  
 tests;  
 case-based assessment;  
 electronic tests;  
 assessment using electronic-mechanical and robotic simulators.

**LIST OF AVAILABLE TEACHING METHODS**

Traditional method;  
 Active (interactive) methods:  
     training based on simulation technologies;  
     Problem-Based Learning (PBL);  
     Team-Based Learning (TBL);  
     Case-Based Learning (CBL);  
     Research-Based Learning (RBL).

**LIST OF PRACTICAL SKILLS**

Name of practical skills	Form of practical skills control
1. Measurement of the external dimensions of the pelvis, Solovyov index, Michaelis rhombus in a pregnant woman	Assessment using electronic-mechanical and robot simulators; performing a practical skill in patients
2. Maneuvers of external obstetrical examination (Leopold's maneuvers)	Assessment using electronic-mechanical and robot simulators; performing a practical skill in patients
3. Estimation of the girth of the abdomen and height of the uterine fundus	Assessment using electronic-mechanical and robot simulators; performing a practical skill in patients
4. Estimation of the fetal expected body weight	Situational task
5. Estimation of gestational age	Situational task
6. Evaluation of the cardiotocogram (CTG).	Situational task



7. Determination of signs of placental separation	Assessment using electronic-mechanical and robot simulators; performing a practical skill in patients
8. Assisted delivery of the placenta	Assessment using electronic-mechanical and robot simulators
9. Assessment of the placenta and blood loss in labor	Situational task, performing a practical skill in patients
10. Gynecological examination (speculum examination, bimanual examination)	Assessment using electronic-mechanical and robot simulators
11. Taking samples from the endocervix and exocervix for cytological examination (PAP-smear)	Assessment using electronic-mechanical and robot simulators
12. Taking biological samples for bacterioscopic examination from the vagina, cervical canal and urethra	Assessment using electronic-mechanical and robot simulators

#### **LIST OF EQUIPMENT USED**

##### *The Simulation & Certification Center (SCC) equipment in the department*

1. The phantom of the female pelvis.
2. An obstetric doll (baby).
3. Obstetric phantom with a baby.
4. Female trunk.
5. Obstetric stethoscope.
6. Pelvimeter.
7. Obstetric forceps.
8. Vacuum extractor.
9. Gynecological speculum.

##### *The Simulation & Certification Center (SCC) equipment in the Simulation Center*

1. A mannequin for mastering the skills of obstetrics and emergency care in obstetrics.
2. A robot simulator for mastering skills of delivery (maneuvers).
3. The phantom of labor imitation.
4. A set of models of the cervix.
5. The phantom of the female pelvis.
6. A mannequin of a newborn baby.
7. Obstetric forceps.
8. Vacuum extractor.
9. Female trunk.
10. Labor simulator – examination of the cervix.

11. Simulator of suturing after perineotomy, a set of 3 parts.
12. Module for mastering of delivery.
13. Simulation system of labor: computer Virtuelle, NewBORN model (electronic version with cyanosis) and fetus.
14. The phantom of vaginal examination.
15. Pelvic phantom for practicing transvaginal ultrasound skills.
16. Simulator of urology and gynecology with a set of training operations for hysteroscopy and endourology.
17. Hysteroscopy simulator.
18. Virtual laparoscopy simulator with tactile feedback system and training modules in gynecology, abdominal, thoracic, urological, oncological surgery with laparoscopy surgery software.
19. Gynecological simulator.
20. A set of gynecological instruments for performing Dilation and Curettage.
21. A phantom for breast examination.

**PROTOCOL OF THE CURRICULUM APPROVAL  
BY OTHER DEPARTMENTS**

Title of the discipline requiring approval	Department	Amendments to the curriculum in the academic discipline	Decision of the department, which designed the curriculum (date, protocol # )
1. Internal Diseases	Internal Diseases	no offers	protocol # 12 of 13.03.2024
2. Surgical Diseases	Surgical Diseases	no offers	protocol # 12 of 13.03.2024
3. Oncology	Oncology	no offers	protocol # 12 of 13.03.2024
4. Urology	Urology	no offers	protocol # 12 of 13.03.2024
5. Infectious Diseases	Infectious Diseases	no offers	protocol # 12 of 13.03.2024

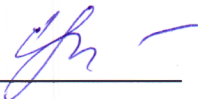
## COMPILERS/AUTHORS:

Head of the Department of Obstetrics and Gynecology of the educational institution «Belarusian State Medical University», DSc., Professor



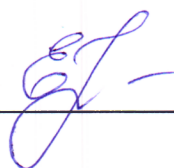
L.F.Mozhejko

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S.A.Pavlukova

Associate Professor of the Department of Obstetrics and Gynecology of educational institution «Belarusian State Medical University», Ph.D.



E.N.Kirillova

Curriculum content, composition and the accompanying documents comply with the established requirements.

Dean of the Medical Faculty for International Students of the educational institution «Belarusian State Medical University»

24.06.2024



O.S.Ishutin

Methodist of Educational and Methodological Department of Educational Activity Office of the Educational Institution «Belarusian State Medical University»

24.06.2024



S.V.Zaturanova