

INSTITUTE OF ENGINEERING PHYSICS FOR BIOMEDICINE

APPROVED ИТС ИФИБ

Protocol No. 3.1

dated 30.08.2024

**ACADEMIC COURSE OUTLINE**

**АКУШЕРСТВО / OBSTETRICS**

Educational program track (speciality) [1] 31.05.01 General Medicine

<b>Semester</b>	<b>Labour input, credits</b>	<b>Total course academic, hours</b>	<b>Lectures, hrs.</b>	<b>Practical sessions, hrs.</b>	<b>Laboratory sessions, hrs.</b>	<b>In the form of practical studies, hrs.</b>	<b>Independent studies, hrs.</b>	<b>Independent studies monitoring, hrs.</b>	<b>Course progress, Exam/Pass-fail exam/Term</b>
7	2	72	20	40	0		12	0	PFE
8	4	144	16	20	0		81	0	Ex
Total	6	216	36	60	0	60	93	0	

## **ABSTRACT**

The discipline program is based on the requirements for the results of mastering the specialist program. The graduate (physician) must be ready to solve the problem of providing maternity care and monitoring the course of physiological pregnancy. During the course of the discipline, the student will have their first acquaintance with the organization of the obstetric and gynecological service, the service of maternity and childhood, and the accounting and reporting documentation of the obstetric hospital and women's consultation. The continuity of acquiring knowledge and obstetric skills is achieved through practical training in the real conditions of the obstetric hospital.

### **1. ACADEMIC COURSE GOALS AND OBJECTIVES**

The purpose of the discipline is to provide general knowledge and skills in obstetrics, as well as to prepare for the management of physiological pregnancy and childbirth.

The objectives of the discipline include:

- to form a system of knowledge about the clinical and physiological features of women's reproductive system, the processes occurring in a woman's body during a physiological pregnancy, the process of normal childbirth, and the physiological postpartum period; the main and additional methods of examination of pregnant women, women in labor, and women after childbirth;

- to form knowledge about the problems of miscarriage, intrauterine infection, venous thrombosis during pregnancy and childbirth, bleeding, the peculiarities of managing pregnancy and childbirth in case of extragenital pathology, the etiology and pathogenesis of the development of toxicosis in the first half of pregnancy, preeclampsia, and eclampsia;

- to develop the skills and abilities to manage physiological childbirth and carry out the necessary measures for the primary treatment of newborns;

- to develop the skills and abilities to diagnose pregnancy, complications of pregnancy, and provide emergency obstetric care in a typical situation;

- to develop the readiness to apply additional research methods in obstetrics and the ability to interpret the results obtained;

- to study the basic issues of contraception, pregnancy planning, and abortion prevention, and develop the readiness to apply these knowledge in practical activities.

### **2. PLACE OF THE ACADEMIC COURSE IN THE MAIN HIGHER EDUCATION CURRICULUM**

The discipline is implemented within the framework of the main part. It is based on the knowledge, skills, and abilities acquired during the study of such disciplines as normal and pathological anatomy, normal and pathological physiology, cytology and embryology, topographic anatomy and operative surgery, medical microbiology and virology, immunology, pharmacology, propaedeutics of internal diseases, radiation diagnostics, and general surgery.

The knowledge, skills, and abilities acquired as a result of studying this discipline are necessary for the subsequent successful study of such disciplines as obstetrics and perinatology, gynecology, pediatric diseases, outpatient therapy, internal diseases, surgical diseases, practical training in obstetrics and gynecology, and practical training in outpatient care, as well as other clinical disciplines.

### 3. DEVELOPED COMPETENCIES AND INTENDED LEARNING OUTCOMES

Universal and/or general professional competencies:

Competency code and title	Code and title of competency-based rubrics
<p>OPIK-4 [1] – Capable of using medical devices stipulated by the medical care procedures, as well as conducting patient examination for diagnosis establishment.</p>	<p>3-OPIK-4 [1] – Know: - modern diagnostic instrumental examination methods for patients, including functional, radiological, ultrasound, radionuclide diagnostics, and endoscopy; - diagnostic capabilities of instrumental examination methods; - medical devices stipulated by the procedure for providing medical care to the adult population in the "Therapy" specialty, and the equipment standard for a therapeutic room; - main medical devices stipulated by the procedures for providing medical care to the adult population in major surgical specialties, obstetrics, and gynecology; - indications for referring patients for instrumental examinations and functional diagnostics; - techniques for physical examination of patients using medical devices stipulated by procedures and considering medical care standards</p> <p>Y-OPIK-4 [1] – Be able to: - use medical devices stipulated by the medical care procedure; - determine the required volume and content of instrumental and functional diagnostics to establish a diagnosis; - interpret results of the most common functional and instrumental diagnostic methods</p> <p>B-OPIK-4 [1] – Possess skills in: - using basic medical devices (stethoscope, blood pressure monitor, sphygmomanometer, pulse oximeter, height-weight scale, measuring tape, neurological hammer, scalpel, forceps, and other devices); - operating electrocardiographs and devices for measuring external respiratory function; - interpreting results of the most common functional and instrumental diagnostic methods</p>
<p>OPIK-6 [1] – Capable of organizing general nursing, providing primary medical care, ensuring the organization of work and making professional decisions in emergencies at the pre-hospital stage, in emergency situations, epidemics and in areas of mass destruction</p>	<p>3-OPIK-6 [1] – Know: - a set of measures for general nursing with diseases of various organs and systems; Signs of clinical and biological death; - indications for patient hospitalization for the most common diseases with typical progression.</p> <p>Y-OPIK-6 [1] – Be able to: - organize care for patient when providing medical care in an outpatient setting; - determine the need for patient hospitalization; - ensure the organization of work in emergency situations, epidemics, and in mass casualty zones.</p> <p>B-OPIK-6 [1] – Possess skills in: - general care of a patient (general nursing); - providing first aid; - making medical decisions in emergencies at the prehospital stage, including in emergency situations, epidemics, and in mass casualty zones.</p>
<p>OPIK-7 [1] – Capable of prescribing treatment and monitoring its effectiveness and safety.</p>	<p>3-OPIK-7 [1] – Know: - pharmacological groups of medicinal drugs and their intended purposes; - mechanisms of action of pharmacological and non-pharmacological treatments, indications and contraindications for their use, side effects, and</p>

	<p>complications caused by their application; - methods for monitoring the effectiveness and safety of various treatment approaches.</p> <p>Y-OIPK-7 [1] – Be able to: - make rational choices for pharmacological and non-pharmacological treatments based on clinical guidelines and in accordance with medical care standards; - develop a treatment plan for a disease or condition considering the diagnosis, age, disease course characteristics, and comorbidities, based on clinical guidelines and medical care standards; - prescribe medications, medical devices, and therapeutic nutrition considering the diagnosis, age, disease course characteristics, and comorbidities, based on clinical guidelines and medical care standards; - justify prescribed pharmacological and non-pharmacological treatments; - evaluate the effectiveness and safety of medications, medical devices, therapeutic nutrition, and other treatment methods.</p> <p>B-OIPK-7 [1] – Possess skills in: - administering medications through various routes of administration; - developing treatment plans for diseases or conditions considering diagnosis, age, disease course characteristics, and comorbidities; - assessing the effectiveness and safety of prescribed treatments.</p>
<p>OIPK-8 [1] – Capable of implementing and monitoring the effectiveness of medical rehabilitation of patients, including during the implementation of individual rehabilitation and habilitation programs for persons with disabilities, and to assess patients' capacity for work.</p>	<p>3-OIPK-8 [1] – Know: - signs of temporary disability and persistent disorders of body functions leading to limitations in life activities; - procedures for conducting temporary disability examinations; - procedures for referring patients for medical and social expertise; - the concept of "Individual Rehabilitation and Habilitation Program for Persons with Disabilities"; - medical indications and contraindications for prescribing spa treatment; - medical indications and contraindications for conducting medical rehabilitation measures, considering the diagnosis, clinical guidelines, procedures, and standards of medical care.</p> <p>Y-OIPK-8 [1] – Be able to: - determine the need for applying natural therapeutic factors, pharmacological and non-pharmacological therapies, and other methods for patients requiring medical rehabilitation and spa treatment; - monitor the effectiveness of medical rehabilitation for patients, including during the implementation of individual rehabilitation and habilitation programs for persons with disabilities; - assess patients' capacity for work; - perform medical rehabilitation measures for patients in accordance with current medical care procedures, clinical guidelines, and medical care standards.</p> <p>B-OIPK-8 [1] – Possess skills in: - identifying signs of temporary disability and persistent disorders of body functions leading to limitations in life activities; - referring patients in need of medical rehabilitation to specialist physicians for the implementation of individual rehabilitation program measures, including spa treatment; - completing sick note, referrals for medical and social expertise, and sanatorium treatment cards.</p>

Professional competencies in compliance with the goals and professional knowledge areas:

Professional activity goal	Professional activity knowledge area	Professional competency code and title; Based on the professional standard, experience analysis	Code and title of competency-based rubrics
medical			
Diagnostics of diseases and pathological conditions of the patients.	Individuals (patients); the population; the set of means and technologies aimed at creating conditions for preserving and strengthening the health of the adult population	<p>ПК-3.2 [1] - Capable of conducting patient examinations to establish a diagnosis</p> <p><i>The base:</i> Professional standard: 02.009</p>	<p>3-ПК-3.2[1] - Know: - clinical diagnosis establishment algorithm; - patient history-taking and physical examination methodology; - laboratory and instrumental research methods for health assessment to establish a diagnosis; - semiotics of diseases of different organs and systems; - structure, principles of the current International Statistical Classification of Diseases and Related Health Problems (hereinafter - ICD).;</p> <p>У-ПК-3.2[1] - Be able to: - conduct patient history-taking and physical examination; - interpret history, physical examination data, laboratory and instrumental results to recognize a condition or establish the presence/absence of a disease, establish a diagnosis; - distinguish and recognize in each specific case tissue damage, the reaction to it, and the form of adaptability; - develop a patient examination plan, justify the necessity and scope of laboratory and instrumental examination; - identify main pathological conditions, symptoms and syndromes, nosological forms in the patient according to the current ICD.;</p>

			<p>B-ПІК-3.2[1] - Possess skills in: - patient history-taking and physical examination; Formulating a preliminary diagnosis; - developing a patient examination plan; Interpreting laboratory and instrumental results; - establishing a diagnosis considering the current ICD</p>
<p>Providing primary medical care in outpatient settings and day hospital settings.</p>	<p>Individuals (patients); the population; the set of means and technologies aimed at creating conditions for preserving and strengthening the health of the adult population</p>	<p>ПІК-3.3 [1] - Able to provide primary medical care in an outpatient setting</p> <p><i>The base:</i> Professional standard: 02.009</p>	<p>3-ПІК-3.3[1] - Know: - general issues of organizing medical care for the population and organizing medical care for the adult population in outpatient settings, including at home; - features of medical care using telemedicine technologies; - Clinical picture, differential diagnosis, features of the course of the disease, complications and outcomes of internal diseases; - diagnostic criteria for the most common diseases of internal organs and systems; - indications for referring patients for specialist consultations according to clinical guidelines and considering relevant medical care standards; - indications for referring patients for specialized medical care in inpatient settings and day hospitals according to clinical guidelines and considering relevant medical care standards; - features of managing and treating elderly patients in outpatient settings. ;</p> <p>Y-ПІК-3.3[1] - Be able to: - perform differential diagnosis of internal</p>

			<p>diseases; - monitor the course of physiological pregnancy; - justify the need for referring patients to specialist consultations; - recognize the main and concomitant diseases; - assess disease or condition severity - the degree of organ and/or system damage or functional impairment due to the disease/condition or its complications; - determine management, examination and treatment tactics for patients with specific diseases (nosological units) depending on disease severity and condition, according to clinical guidelines and considering relevant medical care standards.;</p> <p>B-IIK-3.3[1] - Possess skills in: - conducting differential diagnosis with other diseases/conditions, including emergencies; - interpreting data obtained from patient consultations with specialists; - prescribing additional tests to clarify the diagnosis; - formulating a clinical diagnosis; - prescribing treatment according to clinical guidelines and considering relevant medical care standards.</p>
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#### 4. PEDAGOGIC POTENTIAL OF THE COURSE

<b>Pedagogic tracks/objectives</b>	<b>Pedagogic goals (code)</b>
Vocational and labor education	Establishing conditions for: formation of a deep understanding of the profession's social role, a positive and active commitment to the values of the chosen specialty, and a responsible attitude towards professional activity and work (B14)
Vocational and labor education	Establishing conditions for: formation of psychological readiness for professional activity in the chosen profession (B15)

Professional education	Establishing conditions for: formation of responsibility for professional choice, professional development and professional decisions (B18)
Professional education	Establishing conditions for: formation of motivation to improve the quality of medical care to the population and the desire to follow the rules and norms of interaction between the doctor, colleagues and the patient, contributing to the creation of the most favorable environment for the patient's recovery (B34)

## 5. ACADEMIC COURSE STRUCTURE AND CONTENT

Academic course sections, their scope, terms of study and assessment:

No.	Academic course section name	Weeks	Lectures/ Practical (seminars)/ Laboratory sessions, hrs.	Compulsory current assessment (form *, week)	Maximum grade per section**	Section assessment (form *, week)	Competency-based rubrics
	<i>7 Semester</i>						
1	Anatomy and Physiology of Pregnancy and Childbirth	1-8	10/20/0	T-8 (25)	25	SA-8	У-ПК-3.2, В-ПК-3.2, 3-ПК-3.3, У-ПК-3.3, В-ПК-3.3, 3-ОПК-4, У-ОПК-4, В-ОПК-4, 3-ОПК-6, У-ОПК-6, В-ОПК-6, 3-ОПК-7, У-ОПК-7, В-ОПК-7, 3-ОПК-8, У-ОПК-8, В-ОПК-8, 3-ПК-3.2
2	Anomalies of labor activity	9-15	10/20/0	T-15 (25)	25	SA-15	3-ОПК-4, У-ОПК-4, В-ОПК-4, 3-ОПК-6, У-ОПК-6, В-ОПК-6, 3-ОПК-7, У-ОПК-7, В-ОПК-7,

							3-ОПК-8, У-ОПК-8, В-ОПК-8, 3-ПК-3.2, У-ПК-3.2, В-ПК-3.2, 3-ПК-3.3, У-ПК-3.3, В-ПК-3.3
	<i>Totals for 7 Semester</i>		20/40/0		50		
	<b>Assessment events for 7 Semester</b>				50	PFE	У-ОПК-4, 3-ОПК-4, В-ОПК-4, 3-ОПК-6, У-ОПК-6, В-ОПК-6, 3-ОПК-7, У-ОПК-7, В-ОПК-7, 3-ОПК-8, У-ОПК-8, В-ОПК-8, 3-ПК-3.2, У-ПК-3.2, В-ПК-3.2, 3-ПК-3.3, У-ПК-3.3, В-ПК-3.3
	<i>8 Semester</i>						
1	Narrow pelvis and obstetric surgeries	1-8	8/10/0	Task-8 (25)	25	Task-8	3-ОПК-4, У-ОПК-4, В-ОПК-4, 3-ОПК-6, У-ОПК-6, В-ОПК-6, 3-ОПК-7, У-ОПК-7, В-ОПК-7, 3-ОПК-8, У-ОПК-8, В-ОПК-8, 3-ПК-3.2, У-ПК-3.2, В-ПК-3.2, 3-ПК-3.3, У-ПК-3.3, В-ПК-3.3
2	Postpartum period, complications during pregnancy and after childbirth	9-15	8/10/0	T-15 (25)	25	T-15	3-ОПК-4, У-ОПК-4, В-ОПК-4, 3-ОПК-6, У-ОПК-6,

							В-ОПК-6, 3-ОПК-7, У-ОПК-7, В-ОПК-7, 3-ОПК-8, У-ОПК-8, В-ОПК-8, 3-ПК-3.2, У-ПК-3.2, В-ПК-3.2, 3-ПК-3.3, У-ПК-3.3, В-ПК-3.3
	<i>Totals for 8 Semester</i>		16/20/0		50		
	<b>Assessment events for 8 Semester</b>				50	Ex	В-ОПК-6, 3-ОПК-7, У-ОПК-7, В-ОПК-7, 3-ОПК-8, У-ОПК-8, В-ОПК-8, 3-ПК-3.2, У-ПК-3.2, В-ПК-3.2, 3-ПК-3.3, У-ПК-3.3, 3-ОПК-4, У-ОПК-4, В-ОПК-4, 3-ОПК-6, У-ОПК-6, В-ПК-3.3

\* – abbreviated name of assessment

\*\* – 100 maximum points per semester including a pass/fail exam and (or) an exam

Abbreviated current assessment forms and section assessment

<b>Abbreviation</b>	<b>Full name</b>
SA	Summative assessment
T	Testing
Task	Task
PFE	Pass/fail examination
Ex	Exam

## SYLLABUS

<b>Weeks</b>	<b>Topics / Content</b>	<b>Lect., hrs.</b>	<b>Pr./sem., hrs.</b>	<b>Lab., hrs.</b>
	<i>7 Semester</i>	20	40	0
<b>1-8</b>	<b>Anatomy and Physiology of Pregnancy and Childbirth</b>	10	20	0

1 - 2	<b>Anatomy and physiology of the female reproductive system</b> Structure and functions of the reproductive system of the female body. Physiology of menstrual function. Regulation of menstrual function. Gonadotropic and ovarian hormones. Morphological changes in the ovaries and endometrium. Ovarian and uterine cycle.	All		
		1	2	0
		Online		
		0	0	0
2 - 3	<b>Physiology of pregnancy</b> Physiological changes in a woman's body during pregnancy. Changes in various organs and systems during pregnancy: the nervous, endocrine, cardiovascular systems, respiratory, digestive, urinary, hematopoietic systems, etc. Metabolism during pregnancy. Changes in the uterus, ovaries, and other parts of the reproductive system. Changes in the mammary glands during pregnancy and the postpartum period.	All		
		1	2	0
		Online		
		0	0	0
3 - 4	<b>Embryogenesis</b> Fertilization. Stages of development of the ovum. Structure and functions of the placenta, fetal membranes, amniotic fluid. Classification of teratogenic and embryotoxic factors. Their influence on the growth and development of the fetus.	All		
		1	2	0
		Online		
		0	0	0
4 - 5	<b>Diagnosis of pregnancy</b> Dubious, probable and reliable signs of pregnancy. External and internal obstetric examination. Instrumental methods of research during pregnancy. Methods of counting the term of pregnancy and the estimated date of birth.	All		
		1	2	0
		Online		
		0	0	0
5 - 6	<b>Perinatal care of the fetus and newborn</b> Perinatology as a specific branch of science. The fetus as an object of childbirth. Immunological incompatibility of the mother's and the fetus' blood. Diagnosis of placental insufficiency. Assessment of the intrauterine condition of the fetus. Treatment of placental insufficiency.	All		
		1	2	0
		Online		
		0	0	0
6 - 7	<b>Fetal hypoxia and asphyxia</b> Classification of fetal hypoxia: acute, chronic, causes of hypoxia, pathogenesis of hypoxia, methods of diagnosing the condition of the intrauterine fetus. Possible complications of fetal hypoxia, intracranial birth trauma, asphyxia of the newborn. Treatment methods. Hypoxia of newborns. Classification. Clinical manifestation. Resuscitation measures. Treatment of posthypoxic syndrome	All		
		1	2	0
		Online		
		0	0	0
7 - 8	<b>Labor in vertex presentation and the postpartum period</b> Basic protocol for labor management. Causes of labor, labor antecedents, labor periods. Principles of labor management. Labor expulsive forces. Labor periods. Biomechanism of labor in occipital positions. Physiology of the puerperal period.	All		
		2	4	0
		Online		
		0	0	0
8 - 9	<b>Breech delivery and the postpartum period</b> Basic protocol of delivery. Principles management of the birth act. Birth expelling forces. Periods of delivery. Biomechanism of delivery in breech delivery. Physiology of the postpartum period. Causes and features of management of premature birth.	All		
		2	4	0
		Online		
		0	0	0
9-15	<b>Anomalies of labor activity</b>	10	20	0
9 - 10	<b>Miscarriage and overdue pregnancy</b> Spontaneous abortion. Etiology, pathogenesis, classification,	All		
		1	2	0

	clinic, diagnostics, therapy and prevention. Habitual miscarriage. Etiology, treatment. Overdue pregnancy. Causes, Complications. Forecast for childbirth. Features of the condition of newborns. Tactics of management.	Online		
		0	0	0
10 - 11	<b>Premature birth</b> Premature birth. Classification. Etiology, management of premature birth, prevention, features of management of premature newborns.	All		
		1	2	0
		Online		
		0	0	0
11 - 12	<b>Abnormalities of labor activity</b> Abnormalities of labor activity. Weakness of labor activity (primary and secondary). Etiology, clinic, diagnostics and therapy of weakness of labor activity. Cervical dystocia.	All		
		1	2	0
		Online		
		0	0	0
12 - 13	<b>Abnormalities of labor activity</b> Discoordinated labor activity. Modern methods of diagnosing abnormalities of labor activity. Acceleration labor. Labor in first-time mothers over 30 years old	All		
		1	2	0
		Online		
		0	0	0
13 - 14	<b>Early toxicoses</b> Modern ideas about the etiology and pathogenesis of early toxicoses. Classification of toxicoses of the first half of pregnancy. Clinic, diagnostics and treatment. Rare forms of toxicoses.	All		
		2	4	0
		Online		
		0	0	0
14 - 15	<b>Preeclampsia, eclampsia</b> Modern ideas about the etiology and pathogenesis of late toxicosis. Preeclampsia. Classification. Clinic and diagnostics of preeclampsia. Modern methods of treatment of preeclampsia. Prevention of preeclampsia. Eclampsia. Clinic, diagnostics, basic resuscitation measures. Prevention of preeclampsia. Identification of risk groups for the development of preeclampsia.	All		
		2	4	0
		Online		
		0	0	0
15 - 16	<b>Birth trauma of the mother and the fetus.</b> Birth trauma of the mother and the fetus. Uterine ruptures. Mechanisms of occurrence and classification, spontaneous and forced ruptures. Complete and incomplete, features of uterine ruptures along the scar. Assessment of the fullness of the scar on the uterus. Clinical picture of threatening, beginning and accomplished uterine rupture. Diagnosis, treatment and prevention of birth trauma of the mother. Classification of birth trauma of the fetus. Clinic. Diagnostics. Treatment. Prevention. Features of managing newborns after birth trauma.	All		
		2	4	0
		Online		
		0	0	0
	<i>8 Semester</i>	16	20	0
<b>1-8</b>	<b>Narrow pelvis and obstetric surgeries</b>	8	10	0
1 - 2	<b>Narrow pelvis in modern obstetrics.</b> Anatomically narrow and clinically narrow pelvis. Anatomical characteristics of a narrow pelvis, its shape and degree of narrowing. Etiology. Generalized narrow pelvis. Flat pelvis (simple flat pelvis and flat-rickets pelvis).	All		
		1	2	0
		Online		
		0	0	0
2 - 3	<b>Narrow pelvis in modern obstetrics.</b> Rare forms of narrow pelvis. Diagnosis of anatomical and clinical narrow pelvis. Features of the course of pregnancy and	All		
		1	2	0
		Online		

	childbirth in narrow pelvis. Biomechanism of childbirth in various forms of anatomically narrow pelvis. Complications.	0	0	0
4 - 5	<b>Caesarean section in modern obstetrics.</b> Caesarean section. Indications, contraindications, conditions, anesthesia, techniques, and outcomes of these operations. Types of operations.	All		
		2	2	0
		Online		
		0	0	0
5 - 6	<b>Extension of the fetal head.</b> The course of labor in anterior, frontal, and facial presentation. Features of the biomechanism of labor in extension of the fetal head.	All		
		1	1	0
		Online		
		0	0	0
6 - 7	<b>Extragenital diseases and pregnancy.</b> Hypertension and pregnancy	All		
		1	1	0
		Online		
		0	0	0
7 - 8	<b>Extragenital diseases and pregnancy.</b> Thyroid diseases and pregnancy	All		
		1	1	0
		Online		
		0	0	0
8 - 9	<b>Extragenital diseases and pregnancy.</b> Diabetes mellitus, gestational diabetes, and pregnancy	All		
		1	1	0
		Online		
		0	0	0
<b>9-15</b>	<b>Postpartum period, complications during pregnancy and after childbirth</b>	8	10	0
9 - 10	<b>Immunological incompatibility between the mother and the fetus</b> Immunological incompatibility between the mother and the fetus. Pathogenesis. Classification of fetal and neonatal hemolytic disease.	All		
		1	2	0
		Online		
		0	0	0
10 - 11	<b>Immunological incompatibility between the mother and the fetus</b> Management of pregnant women with Rh-conflict pregnancy. Treatment of hemolytic disease of newborns. Preventive measures to prevent this pathology.	All		
		1	2	0
		Online		
		0	0	0
11 - 12	<b>Postpartum diseases</b> Frequency, etiology, pathogenesis of postpartum diseases. The role of micro-macroorganisms. Classification of postpartum diseases according to Sazonov-Bartels. The main clinical forms of diseases: postpartum ulcers, metroendometritis, the concept of lochiometra, parametritis, inflammation of the uterine appendages	All		
		1	2	0
		Online		
		0	0	0
12 - 13	<b>Postpartum diseases</b> Metrotrombophlebitis, thrombophlebitis of the pelvic, femoral, and tibial veins. Peritonitis. Generalized septic infection. Clinic, diagnostics, prevention, and treatment of postpartum diseases. Features of the course of postpartum diseases in modern conditions.	All		
		1	1	0
		Online		
		0	0	0
13 - 14	<b>Postpartum diseases</b> Late postpartum bleeding. Diseases of the mammary glands. Nipple cracks. Inflammation of the mammary glands (mastitis). Hypogalactia. Etiology, clinic, diagnosis, treatment and	All		
		1	1	0
		Online		
		0	0	0

	prevention of diseases of the mammary glands.			
14 - 15	<b>Organization of obstetric and gynecological service</b> The basic principles of the organization of obstetric and gynecological care in Russia. Types of obstetric hospitals. Order No. 572n of the Ministry of Health of the Russian Federation.	All		
		1	1	0
		Online		
		0	0	0
15 - 16	<b>Outpatient polyclinic obstetric care</b> Obstetric and gynecological care in a women's consultation. Social and legal assistance to women. Temporary disability examination.	All		
		2	1	0
		Online		
		0	0	0

Abbreviated names of online options:

Abbreviation	Full name
EC	E-course
FtM	Full-text material
FtL	Full-text lectures
VM	Video materials
AM	Audio materials
Prs	Presentations
T	Tests
ERM	E-reference materials
IS	Interactive site

#### PRACTICAL SESSIONS TOPICS

Weeks	Topics / Content
	<i>7 Semester</i>
1 - 4	<b>Anatomy and physiology of the female reproductive system. Embryogenesis. Physiology of pregnancy and childbirth.</b> The lesson covers modern methods of diagnosing the functional state of the female reproductive system, the anatomy of the female reproductive organs, the stages of pregnancy development, and the physiology of pregnancy
5 - 7	<b>Diagnosis of pregnancy. Causes of labor. Labor forces. Labor in occipital and pelvic presentations.</b> Study of methods of diagnosing the gestational age, methods of calculating the due date, causes of labor. Labor periods. Characteristics of labor forces. Classification of occipital presentations. Biomechanism of labor in occipital presentations.
8 - 9	<b>Childbirth in pelvic presentations. Postpartum period.</b> Classification of pelvic presentations. Causes of pelvic presentations and complications. Biomechanism of childbirth in pelvic presentations. Hypoxia and asphyxia of the fetus. Obstetric interventions in pelvic presentations.
10 - 11	<b>Miscarriage and overdue pregnancy. Premature birth.</b> Causes of miscarriage and overdue pregnancy. Features of the newborn in case of overdue pregnancy. Premature birth classification. Features of management of labor and resuscitation of the newborn in case of premature birth
12 - 13	<b>Abnormalities of labor activity</b> Classification of abnormalities of labor activity. Causes of abnormalities of labor activity. Therapy and prevention. Rapid labor.
14 - 16	<b>Early and late toxicoses of pregnancy.</b> Classification of toxicoses of pregnancy. Etiology, pathogenesis, clinic, diagnostics,

	treatment
	<i>8 Semester</i>
1 - 6	<b>Narrow pelvis. Obstetric operations. Flexion presentations.</b> Classification of narrow pelvis. Methods of diagnosing narrow pelvis. Cesarean section in modern obstetrics. Indications, contraindications, complications of cesarean section. Classification of extension presentations. Biomechanism of labor in the extension type of presentation.
7 - 9	<b>Extragenital diseases and pregnancy</b> Study of the course of pregnancy in hypertension, diabetes mellitus, thyroid diseases. Gestational diabetes and pregnancy. Management tactics.
10 - 11	<b>Immunological incompatibility between the mother and the fetus</b> Study of the features of pregnancy management in case of immunological incompatibility between the mother and the fetus. Hemolytic disease of newborns. Clinic, diagnostics, treatment, prevention.
12 - 14	<b>Postpartum diseases</b> Study of the frequency, etiology, pathogenesis, epidemiology of postpartum diseases. Classification of postpartum diseases. Inflammatory postpartum diseases. Obstetric bleeding in the postpartum period. Mastitis.
15 - 16	<b>Organizational and legal aspects of obstetric and gynecological services in the Russian Federation.</b> Levels of obstetric and gynecological care in Russia. Types of obstetric hospitals. Order No. 572n of the Ministry of Health of the Russian Federation.

## 6. EDUCATIONAL TECHNOLOGIES

To master the discipline by students and implement the competence approach in the educational process, active and interactive forms of conducting classes (lectures, clinical (practical) classes, business games on the subject of classes, analysis of specific clinical situations) are used in order to form and develop professional skills of students.

It is provided for the mandatory participation of students in clinical and scientific and practical conferences, clinical consultations.

The development of practical skills is provided, including in simulated conditions.

## 7. ASSESSMENT TOOLKIT

The assessment toolkit ensures verification of the intended learning outcomes achievement (competency-based rubrics) using current, midterm and interim assessment of the course.

The link between developed competencies and their assessment is presented in the following table:

Competency	Achievement rubrics	Assessment activity (Syl 1)	Assessment activity (Syl 2)
ОПК-4	3-ОПК-4	PFE, SA-8, SA-15, T-8, T-15	Ex, Task-8, T-15, 3Д-8, T-15
	У-ОПК-4	PFE, SA-8, SA-15, T-8, T-15	Ex, Task-8, T-15, 3Д-8, T-15
	В-ОПК-4	PFE, SA-8, SA-15, T-8, T-15	Ex, Task-8, T-15, 3Д-8, T-15
ОПК-6	3-ОПК-6	PFE, SA-8, SA-15, T-	Ex, Task-8, T-15, 3Д-8,

		8, T-15	T-15
	У-ОПК-6	PFE, SA-8, SA-15, T-8, T-15	Ex, Task-8, T-15, 3д-8, T-15
	В-ОПК-6	PFE, SA-8, SA-15, T-8, T-15	Ex, Task-8, T-15, 3д-8, T-15
ОПК-7	3-ОПК-7	PFE, SA-8, SA-15, T-8, T-15	Ex, Task-8, T-15, 3д-8, T-15
	У-ОПК-7	PFE, SA-8, SA-15, T-8, T-15	Ex, Task-8, T-15, 3д-8, T-15
	В-ОПК-7	PFE, SA-8, SA-15, T-8, T-15	Ex, Task-8, T-15, 3д-8, T-15
ОПК-8	3-ОПК-8	PFE, SA-8, SA-15, T-8, T-15	Ex, Task-8, T-15, 3д-8, T-15
	У-ОПК-8	PFE, SA-8, SA-15, T-8, T-15	Ex, Task-8, T-15, 3д-8, T-15
	В-ОПК-8	PFE, SA-8, SA-15, T-8, T-15	Ex, Task-8, T-15, 3д-8, T-15
ПК-3.2	3-ПК-3.2	PFE, SA-8, SA-15, T-8, T-15	Ex, Task-8, T-15, 3д-8, T-15
	У-ПК-3.2	PFE, SA-8, SA-15, T-8, T-15	Ex, Task-8, T-15, 3д-8, T-15
	В-ПК-3.2	PFE, SA-8, SA-15, T-8, T-15	Ex, Task-8, T-15, 3д-8, T-15
ПК-3.3	3-ПК-3.3	PFE, SA-8, SA-15, T-8, T-15	Ex, Task-8, T-15, 3д-8, T-15
	У-ПК-3.3	PFE, SA-8, SA-15, T-8, T-15	Ex, Task-8, T-15, 3д-8, T-15
	В-ПК-3.3	PFE, SA-8, SA-15, T-8, T-15	Ex, Task-8, T-15, 3д-8, T-15

### Educational achievement rubrics scales

The scale of each assessment activity varies from 0 to the maximum established point, inclusive. The final assessment of the course is performed on a 100-point scale and represents the sum of the points earned by the student in the section assessments, framework of current and interim assessment.

Sections and interim assessments are considered passed when the student achieves a minimum score equal to 60% of the maximum. The final grade is assigned only upon passing all sections and the interim assessment.

The final grade is assigned in accordance with the following scale:

Total score	Rating on a 4-point scale	Pass/fail examination	ECTS assessment
90-100	5 – « <i>excellent</i> »	« <i>pass</i> »	A
85-89	4 – « <i>good</i> »		B
75-84			C
70-74			D
65-69	3 – « <i>satisfactory</i> »		

60-64			E
below 60	2 – «fail»	«fail»	F

An “excellent” grade indicates a deep and solid mastery of the program material by a student who presents their answers consistently, clearly, and logically, is able to closely link theory with practice, and uses materials from monographic literature in their answers.

A “good” grade corresponds to a student’s solid knowledge of the material, who presents their answers competently and to the point, without any significant inaccuracies.

A “satisfactory” grade corresponds to the basic level of mastery of the material by the student, in which the main material has been mastered, but its details have not been assimilated, the answers contain inaccuracies, insufficiently correct wording and logical inconsistencies.

A grade “pass” corresponds to at least a basic level of mastery of the program material, in which the student possesses the necessary knowledge, skills, and abilities, and is able to apply theoretical principles to solve typical practical problems.

A grade “fail” is given to a student who lacks a significant understanding of the curriculum material, makes significant errors in their answers, or fails all required assignments. These students are generally unable to continue their studies without additional classes.

## **8. ACADEMIC COURSE EDUCATIONAL, METHODOLOGICAL AND INFORMATIONAL SUPPORT**

### **CORE READING:**

1. ЭИ S34 Obstetrics and gynecology : Vol. 1. Physiological obstetrics : учебное пособие, Sidorova I.S., Nikitina N., Москва: ГЭОТАР-Медиа, 2021
2. ЭИ S57 Obstetrics and gynecology: Vol. 2. Obstetric pathology : учебник, Sidorova I.S., Nikitina N., Москва: ГЭОТАР-Медиа, 2021

### **FURTHER READING:**

1. ЭИ S34 Obstetrics and gynecology : Vol. 3 : учебник, Nikitina N.A., Sidorova I.S., Москва: ГЭОТАР-Медиа, 2021
2. ЭИ S34 Obstetrics and gynecology: Vol. 4. Gynecology : учебник, Unanyan A., Sidorova I.S., Nikitina N., Москва: ГЭОТАР-Медиа, 2021

### **SOFTWARE:**

1. Microsoft Office 2016+ ()
2. Windows Media Player ()

### **LMS AND ONLINE RESOURCES**

1. Anatomical Dictionary. (<https://www.memorixanatomy.com/dictionary>)
  2. База данных elibrary.ru - научной электронной библиотеки. (<http://elibrary.ru/defaultx.asp/>)
  3. Электронная библиотека медицинского вуза. (<http://www.studmedlib.ru/>)
  4. [www.book.ru](http://www.book.ru/) ()
  5. [www.studentlibrary.ru](http://www.studentlibrary.ru/) ()
  6. [www.iprbooks.ru](http://www.iprbooks.ru/) ()
- <https://online.mephi.ru/>
- <http://library.mephi.ru/>

## **9. LOGISTICAL SUPPORT**

1. Персональный компьютер: Процессор CPU Intel Core i7-8700 (3.2GHz/12MB/6 cores)  
Материнская плата Gig (Клиническая база)
2. Мышь, клавиатура (Клиническая база)
3. Проектор SMART P109 (Клиническая база)
4. Видеокамера Microsoft LifeCam Cinema HD (Клиническая база)
5. Монитор (Клиническая база)
6. Кушетка смотровая (Клиническая база)
7. Иное оснащение, предусмотренное порядками оказания медицинской помощи по соответствующему профилю (Клиническая база)
8. Тазомер акушерский металлический ТА-М-МИЗ (64-401)
9. Акушерский тренажер (Nasco) NS.110.180 (64-302)

## **10. EDUCATIONAL AND METHODOLOGICAL RECOMMENDATIONS FOR STUDENTS**

Lecture:

Writing a lecture note: briefly, schematically, consistently record the main points, conclusions, formulations, generalizations; mark important thoughts, highlight keywords, terms. Checking terms, concepts using encyclopedias, dictionaries, reference books with writing out interpretations in a notebook. Designate questions, terms, material that causes difficulties, mark and try to find the answer in the recommended literature. If it is not possible to understand the material on your own, it is necessary to formulate a question and ask the teacher at a consultation, at a practical lesson.

Each student must prepare individually on the discipline topics, reading lecture notes and recommended literature. Independent work allows the student to think in a quiet environment, to deal

with information on the topic, if necessary, to refer to reference literature. Careful reading and repetition of what has been read helps to fully master the content of the topic, to structure knowledge.

In order to ensure that the content of the discipline is remembered for a long time, it is advisable to study it in stages, by topic and in a strict sequence, as subsequent topics usually build on previous ones. This is why most of the independent work involves preparing for seminars, completing recommended tasks, preparing for colloquiums, completing and defending individual homework assignments, and preparing for laboratory work. To successfully complete these tasks, each student has access to the department's methodological support.

It is best for students to plan the time they will need for independent study of this discipline for the entire semester, with regular review of the material. The material covered in lectures should be regularly supplemented with information from the literature sources listed in the course syllabus. For each of the topics for independent study listed in the course syllabus, students should first read the recommended literature and, if necessary, create a brief summary of the main concepts, terms, and information that needs to be memorized and is essential for understanding the topic and progressing through the course. It is recommended to use Internet resources to expand knowledge in the discipline.

When working independently, it is recommended to make notes on the material being studied (worked on). The notes can be basic, containing only the main key points, but still sufficient to provide a complete answer to the question. The notes can also be detailed. The length of the notes is determined by the student themselves.

In the process of working with educational/scientific literature, it is recommended that the student make notes as they read in the form of a simple or expanded plan, write down theses, and prepare annotations of what they have read. The presence of such notes can earn additional points for activity.

#### Clinical practical classes

The most important stage of the practical lesson is the students' independent work on mastering practical skills: in-simulated conditions, at the patient's bedside, in the functional diagnostics room, etc.

Depending on the specific topic of the lesson, the student independently (or under the supervision of the teacher) questions the patient, conducts a clinical examination, is present during instrumental diagnostics and studies the results of additional studies, summarizes the data, presents it in the form of fragments of the medical history and reports the results to the teacher.

Achievements are assessed individually for each student, based on the degree of development of practical skills and their theoretical foundations.

Clinical case studies of specific patients are conducted for the entire group or through students' participation in clinical case studies and periodic scientific and practical conferences at the medical institutions where their practical training takes place. During these case studies, the instructor evaluates each student's active participation and clinical reasoning skills.

Solving situational problems proposed by the teacher, which develop clinical thinking and force the student to use knowledge gained in various subjects of the specialty.

Active and interactive forms of conducting classes are widely used in the educational process (work in small groups, activation of creative activities, use of computer training programs, conference classes).

The teacher supervises the students' independent work, preparation of abstracts, research and development work, work with the patient together with the teacher, interpretation of data from additional research methods, and completion of medical documentation.

Basic note-taking forms: outline (simple and detailed), excerpts, and abstracts. During preparation, it is important to compare sources, consider the material being studied, develop an action plan, and carefully consider your oral presentation.

Active and interactive forms of teaching are widely used in the educational process (small group work, activation of creative activity, use of computer training programs, and conference-style classes).

The teacher controls students' independent work, the preparation of essays, students' research work, working with patients together with the teacher, interpreting data from additional research methods, and filling out medical documentation.

Control work

Familiarization with the main and additional literature, including reference publications, foreign sources, a summary of the main provisions, terms, information required for memorization and are fundamental in this topic. Compilation of summaries of the read literary sources, etc.

Abstract

Search for literature and compilation of a bibliography, use of 3 to 5 scientific works, presentation of the authors' opinion and your judgment on the selected issue; presentation of the main aspects of the problem.

Preparing for an exam/test

When preparing for an exam (test), it is necessary to focus on lecture notes, recommended literature, etc.

## **11. EDUCATIONAL AND METHODOLOGICAL RECOMMENDATIONS FOR TEACHERS**

In practical classes, students are monitored to ensure that they have mastered the lecture material, and they are supervised in obstetric hospitals and maternity clinics, as well as in the examination and manipulation rooms and operating rooms. Visual aids, surgical instruments, and an obstetric phantom are used to demonstrate and practice practical obstetric skills. To assess students' ability to think clinically, they are given case studies, clinical birth histories, test assignments, and clinical case reviews, as well as opportunities to attend medical conferences, consultations, and scientific symposiums.

Active and interactive forms of teaching are widely used in the educational process (work in small groups, activation of creative activity, use of computer training programs, and a conference-style lesson).

The teacher controls the students' independent work, preparation of essays, research work, work with the patient in collaboration with the teacher, interpretation of additional research methods, and filling out medical documentation.

Working with educational literature is considered a type of academic work and is carried out within the hours allocated for its study. Each student has access to the electronic library resources of the institute and the department.

For each section of the academic discipline, methodological instructions have been developed for the teaching staff on conducting clinical (practical) classes in this discipline.

Student training contributes to the development of their skills in communicating with pregnant women, taking into account the ethical, deontological, and psychological aspects of pregnancy.

Independent work helps to develop skills in working with patients, working with literature, analytical thinking, filling out documentation, and being accurate and disciplined.

The initial level of students' knowledge is determined by testing, and the current control of the subject's assimilation is determined by oral questioning during classes, during clinical reviews, while solving typical situational tasks, and answering test assignments.

At the end of the study of the academic discipline, intermediate and final control of knowledge is carried out using test control, checking practical skills and solving situational tasks.

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