MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

SUMY STATE UNIVERSITY

Academic and Research Medical Institute

Кафедра акушерства, гінекології та планування сім'ї

FUNCTIONAL DIAGNOSTICS IN OBSTETRICS AND GYNECOLOGY

Higher education level	The Second
Major: study programme	222 Medicine: Medicine

Approved by Quality Council HHMI

Chairman of the Quality Council HHMI
Petrashenko Viktoriia Oleksandrivna

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DATA ON APPROVAL

Author Nikitina Iryna Mykolaivna

Considered and approved at the meeting of the work group of Study programme Медицина	Head of the work group (Head of the Study programme) Prystupa Liudmyla Nykodymivna
Considered and approved at the meeting of the Кафедра акушерства, гінекології та планування сім'ї	Head of the Department Boiko Volodymyr Ivanovych

SYLLABUS

1. General information on the course

Full course name	Functional diagnostics in obstetrics and gynecology
Full official name of a higher education institution	Sumy State University
Full name of a structural unit	Academic and Research Medical Institute. Кафедра акушерства, гінекології та планування сім'ї
Author(s)	Nikitina Iryna Mykolaivna
Cycle/higher education level	The Second Level Of Higher Education, National Qualifications Framework Of Ukraine – The 7th Level, QF-LLL – The 7th Level, FQ-EHEA – The Second Cycle
Duration	one semester
Workload	5 ECTS, 150 hours. For full-time course 50 hours are working hours with the lecturer (50 hours of seminars), 100 hours of the individual study.
Language(s)	English

2. Place in the study programme

Relation to curriculum	Elective course available for study programme "Medicine"
Prerequisites	Krok-1, Knowledge of anatomy, physiology, pat. physiology
Additional requirements	There are no specific requirements
Restrictions	There are no specific restrictions

3. Aims of the course

To use the basic methods of functional diagnostics in obstetric and gynaecological practice. To learn the correct choice of diagnostic methods from a large number of different examination types in obstetrics and gynaecology that are necessary for disease treatment and differentiation

4. Contents

Module 1. Functional diagnostics in obstetrics and gynaecology

Topic 1 Modern methods of examination of gynaecological patients. Laboratory methods of research Providing information on the topic relevance. Features of gynaecological and reproductive history, objective examination for gynaecological patients. The main methods of gynaecological examination of women (examination in mirrors; bimanual, rectal examination). Instrumental research methods in gynaecology. Oncocytological examination. Technique of taking a smear for oncocytological examination. Types of smears. Bacterioscopic and bacteriological examination. The technique of taking a smear for microscopic examination. Degrees of vaginal cleanliness. Smear on the hormonal mirror
Topic 2 Hormonal testing (blood hormones, functional diagnostic tests) Determination of blood hormones: FSH, LH, prolactin, progesterone, estradiol, total testosterone, free testosterone, functional diagnostic methods. Functional diagnostic tests (pupil symptoms, ferns, mucus tension, basal temperature measurement). Analysis of the basal temperature graph. Tests with hormones. Test with gestagens. Test with estrogens and gestagens. Test with dexamethasone. Cytological examination of vaginal smears: maturation index, karyopycnotic index, eosinophilic index.
Topic 3 Gynecological endocrinology Classification of hormones. Metabolism of sex steroids. Sex steroid receptors hormones Estrogens. Progestogens. Androgens. Their clinical application. Anti-estrogens. Antiandrogens. Antigestagens.
Topic 4 Gynecological endocrinology Basic principles of endocrine diagnostics. Endocrinological functional tests. Test with progestogens. Estrogen-progestogen test. Test with gonadoliberins. Sample from ACTH. Suppression test with dexamethasone. Glucose tolerance test.
Topic 5 Endocrinology of childhood and adolescence Normal pubertal period. Adrenarche. Gonadarche. Premature puberty Diagnostics. Delayed puberty. Methods of diagnosis and treatment. Gigantism Diagnostics. Treatment. Hormonal contraception in adolescence and young adulthood. Amenorrhea in adolescence. Diagnostics. Treatment.
Topic 6 Dysfunction of the thyroid gland Synthesis of thyroid hormones and their effect on reproductive function. Hypothyroidism. Hyperthyroidism. Euthyroidism. Clinical picture. Diagnostics. Clinical examination methods. Laboratory examination. Visualization methods of diagnosis. Puncture biopsy with cytological research. Treatment.
Topic 7 Premature ovarian failure Premature ovarian failure. Etiology. Autoimmune diseases. Clinical picture. Diagnostics. Basic diagnosis. Criteria for making a diagnosis. Further examinations in which premature ovarian failure is diagnosed. Hormonal therapy
Topic 8 Endocrinology of the menopausal period Etiology and clinical picture of menopausal disorders. Diagnostics and differential diagnosis of menopausal disorders. tides Sleep disorders. Depressive disorders. Urogenital syndrome. Hormonal therapy and non-hormonal medication treatment

Topic 9 Instrumental research methods in gynecology. Probing of the uterine cavity. Biopsy. Puncture of the posterior vault.

The technique of probing the uterus to determine the patency of the cervical canal, the position and direction of the uterine cavity, its length and the state of relief of the uterine walls. Indications and contraindications for probing. The use of sounding is not only for diagnostic purposes, but also before some operations (scraping the walls of the cavity uterus, amputation of the cervix, etc.). Biopsy - excision and microscopic examination a piece of tissue for diagnostic purposes. Biopsy tools. Machinery conducting a biopsy. Puncture of the abdominal cavity through the posterior vault. shows, contraindications, tools, technique for diagnosing the disorder ectopic pregnancy, ovarian apoplexy, pelvioperitonitis. Methods of pain relief.

Topic 10 Instrumental research methods in gynecology. Diagnostic scraping uterine cavity.

Instrumental removal of the functional layer of the uterine mucosa together with pathological formation. Diagnostic role in uterine bleeding, dysfunctional disorders of the menstrual cycle, suspicion of malignant tumors uterine, placental and decidual polyps, mucosal hyperplasia and polyposis uterine cavity, incomplete miscarriage, etc. Toolkit for conducting diagnostic scraping of the uterine cavity. Histological examination of the scraping endometrium Indications, contraindications, procedure technique. Compliance with the rules aseptics and antiseptics. Technique of general or local anesthesia. Complication, diagnosis and prevention. Fractional diagnostic curettage of the uterine cavity, instrumental removal of the mucous membrane of the cervix and uterine cavity.

Topic 11 Endoscopic research methods in gynecology.

Examination of the cavity of internal organs by examining them with the help of special instruments devices with a lighting device. Laparoscopy is used in gynecology, hysteroscopy, culdoscopy, colposcopy, cystoscopy, rectoromanoscopy, diaphonoscopy, etc. Effectiveness of the method. Advantages and disadvantages of the method. Indications and contraindications for use.

Topic 12 Endoscopic methods of research in gynaecology. Hysteroscopy.

The method of examination of the uterine cavity using a hysteroscope. Indications for conducting hysteroscopy Office hysteroscopy. Hysteroresectoscopy. Tools and equipment for hysteroscopy. Methods of performing hysteroscopy, effective methods analgesia, technique of conducting. Advantages and disadvantages of the method. Performance control performed treatment, before performing surgical interventions and manipulations in uterine cavity. Peculiarities of hysteroscopy in dysfunctional cases uterine bleeding, bleeding during menopause, suspected uterine fibroids, adenomyosis and endometrial cancer, anomalies of uterine development. Carrying out polypectomy, excision of partitions and synechiae in the uterine cavity, removal of foreign bodies and intrauterine spirals from the uterine cavity using hysteroresectoscopy. Possible complications during hysteroscopy. Contraindications to conduct hysteroscopy: general infectious diseases, severe condition of the patient with diseases cardiovascular system, parenchymal organs, III-IV degrees of vaginal cleanliness secretion, acute inflammatory diseases of the female genital organs.

Topic 13 Endoscopic research methods in gynecology. Colposcopy. Cervicoscopy

Colposcopy - examination of the cervix and vaginal mucosa with the help of an optical instrument colposcope device. Colposcopy can detect changes in the epithelium of the cervix uterus, precancerous conditions, select a tissue area for biopsy, and also observe the dynamics of changes during certain methods of treatment of the cervix and vagina. Necessary tools and equipment for colposcopy. The technique of downtime and extended colposcopy. Schiller's test. The concept of adequate and inadequate colposcopic picture. Colposcopic signs of LSIL, HSIL. Advantages and disadvantages of the method. Indications and contraindications for use. Cervicoscopy - examination of the cervical canal for using a cervicoscope through a colposcope. Advantages and disadvantages of the method. Indications and contraindications for use.

Topic 14 Endoscopic research methods in gynecology. Laparoscopy. Culdoscopy.

Examination of the organs of the abdominal cavity and pelvis with the help of optical instruments introduced through an incision in the anterior abdominal wall. When using an incision through the back vaults use culdoscopy. Laparoscopy in differential diagnosis tumors of the uterus and its appendages, in case of suspicion of scleropolycystosis, internal endometriosis, anomalies of the development of internal genital organs, tuberculosis, ectopic pregnancy, and also to clarify the causes of infertility and pain of unknown etiology. Contraindications to laparoscopy. Peculiarities of preparation for laparoscopic surgery. Necessary tools and equipment. Analgesia and technique laparoscopic interventions. Possible complications during laparoscopy and diagnostic features of injury to the vessels of the anterior abdominal wall, omentum, and mesentery intestine and intestinal wall. Culdoscopy technique. Indications, contraindications.

Topic 15 Hardware research methods in gynecology. Ultrasound of the uterus and appendages.

Ultrasonography in gynecology is a method based on the ability of tissues of different densities to reflect or absorb ultrasonic energy in different ways. Modern ultrasound the equipment allows you to examine the organs of the small pelvis with the help of various sensors: abdominal, vaginal, rectal. Ultrasound in gynecological practice used for differentiation of neoplasms of the uterus and ovaries, diagnostics ectopic pregnancy. The advantage of the method is its high informativeness, the correct establishment of the diagnosis, the simplicity of the study and the absence of contraindications. Disadvantages of the method. Peculiarities of patient preparation for examination.

Topic 16 Hardware research methods in gynecology. Computed tomography

Computed tomography is a method by which images are obtained cross-section of the body without superimposing objects. Diagnostics with help computed tomography is based on radiological symptoms: localization, shape, sizes, density of tumor formations, as well as compression or germination by the tumor surrounding tissues, condition of lymph nodes. The principle of computed tomography. Effectiveness of the method. Advantages and disadvantages of the method. Indications and contraindications to application.

Topic 17 X-ray research methods. X-ray of the Turkish saddle, hysterosalpingography

Hysterosalpingography is a method of examining the uterine cavity and fallopian tubes using radiography. This method is used to determine patency fallopian tubes, uterine malformations, endometriosis, fallopian tube tuberculosis, presence submucous fibromatous nodes, synechiae, polyps. Instruments and contrast agents, used for hysterosalpingography. Conducting technique hysterosalpingography. . Effectiveness of the method. Advantages and disadvantages of the method. Indication and contraindications for use. Possible complications. Indications for conducting X-ray of the Turkish saddle in gynecology.

Topic 18 X-ray research methods. Gynecography (pneumopelviography). Angiohystero-salpingography Lymphography. Phlebography

Gynecography (pneumopelviography) is a method used for diagnosis and differential diagnosis of tumors of the pelvic organs, spread of the tumor process in malignant neoplasms of the genitals, for the diagnosis of developmental abnormalities genitals. Effectiveness of the method. Advantages and disadvantages of the method. Indications and contraindications for use. Possible complications. Angiohystero-salpingography - simultaneous contrast of pelvic vessels, uterine cavity and fallopian tubes. Efficiency method Advantages and disadvantages of the method. Indications and contraindications for use. Lymphography - determination of the state of the lymphatic system by use radiopaque substances. Effectiveness of the method. Advantages and disadvantages of the method. Indications and contraindications for use. Phlebography - determination of the venous condition mesh of the small pelvis by using contrast agents. Effectiveness of the method. Advantages and disadvantages of the method. Indications and contraindications for use.

Topic 19 Methods of laboratory diagnostics in obstetric practice. Biochemical screening programs

General clinical and biochemical analyses. Hormonal diagnostics of the I, II and III trimesters pregnancy Examination for infections of the perinatal period. Determination of blood group pregnant woman, titer of anti-Rhesus antibodies. Hormonal mirror. Smear on leakage amniotic fluid Smears on microflora. Fence technique. Biochemical markers congenital malformations (chorionic gonadotropin, alpha-fetoprotein, estriol) in different periods of pregnancy. Their diagnostic value, median levels of these indicators.

Topic 20 Cardiotocography

Fetal monitoring is a method of examining fetal heartbeat and uterine tone. Indication, terms and technique of conducting CTG. Equipment for carrying out CTG. Efficiency methods. Evaluation of results.

Topic 21 Ultrasound diagnostics in obstetrics

Ultrasound examination, principles, indications, terms of conduct, effectiveness diagnosis of various fetal diseases, evaluation of the state of the placenta, ultrasound strategy prenatal diagnosis. The timing of ultrasound screening is optimal terms of ultrasound screening in obstetrics. Ultrasound fetoplacentometry. Doppler measurement of blood flow in the uterine artery, umbilical artery, fetal aorta, middle cerebral artery. Diagnostic criteria for blood flow disorders. Critical blood flow parameters. Tactics of managing a pregnant woman in case of uterine-placental disorders and fetal blood flow. Indications for immediate delivery. Definition of biophysical fetal profile.

Topic 22 Prenatal ultrasound diagnosis of congenital malformations of the fetus Non-invasive prenatal diagnosis. Modern possibilities of prenatal ultrasound diagnosis of congenital malformations. arteries Indications and terms of premature termination of pregnancy.
Topic 23 Invasive methods of prenatal diagnosis in obstetrics General characteristics. indications and contraindications Methods of invasive prenatal diagnostics, terms of their implementation. Indications and contraindications for conducting invasive prenatal diagnosis, possible complications due to invasive diagnostics. Conditions for conducting invasive diagnostics.
Topic 24 Methodology of conducting invasive prenatal research methods Indications, contraindications, conditions and technique of amniocentesis. Research amniotic fluid - the level of alpha-fetoprotein, sphingomyelin, optical studies amniotic fluid density, bilirubin level. Chorion biopsy technique, cordocentesis, placentacentesis, amniocentesis. Study of cells of chorionic villi, placenta (direct method, cultivation). Cultivation of amniocytes. Cordocentesis. Indications, contraindications, conditions and technique of cordocentesis. Efficiency methods. Toolkit. Complications during cordocentesis. Analysis of the umbilical cord fetal blood.
Topic 25 Practice-oriented test Questions for the entire course “Functional diagnostic methods in obstetrics and gynaecology”: theory and test control. Course assessment. Summing up the results.

5. Intended learning outcomes of the course

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

LO1	To collect medical information about the patient and analyse clinical data (patient interviewing skills)
LO2	To master the skills of functional diagnostic methods in obstetrics and gynaecology
LO3	To choose functional examination methods depending on the pathology for differential diagnosis of diseases in obstetrics and gynaecology
LO4	To interpret, analyze and summarize the data obtained from the use of functional diagnostic methods in accordance with the goal, objectives and criteria for achieving the expected results in pathology examination
LO5	To make informed decisions on the choice of functional diagnostic methods
LO6	To demonstrate mastery of the moral and deontological principles of a medical specialist and principles of professional subordination. To work in a team, use professional vocabulary in practice

7. Soft Skills

SS1	Ability to think abstractly, analyse and synthesize
SS2	Ability to learn and master modern knowledge
SS3	Knowledge and comprehension of the subject area and understanding of professional activities

SS4	Ability to adapt and act in a new situation
SS5	Ability to make informed decisions
SS6	Ability to use information and communication technologies
SS7	Ability to apply knowledge in practical situations
SS8	Determination and perseverance in relation to tasks and responsibilities

8. Teaching and learning activities

Topic 1. Modern methods of examination of gynaecological patients. Laboratory methods of research
pr.tr.1 "“Modern methods of examination of gynaecological patients. Laboratory methods of research”" (full-time course) Providing information on the topic relevance. Features of gynaecological and reproductive history, objective examination of a gynaecological patient. Main methods of gynaecological examination of women (examination in mirrors; bimanual and rectal examination). Instrumental methods of research in gynaecology. Oncocytological examination. Technique of taking a smear for oncocytological examination. Types of smears. Bacterioscopic and bacteriological examination. Technique of taking a smear for microscopic examination. Degrees of vaginal cleanliness. Smear on the hormonal mirror. Study of this topic involves theoretical work in the classroom, presentation and discussion.
Topic 2. Hormonal testing (blood hormones, functional diagnostic tests)
pr.tr.2 "“Hormonal testing (blood hormones, functional diagnostics tests)”" (full-time course) Determination of blood hormones: FSH, LH, prolactin, progesterone, estradiol, total testosterone, free testosterone, functional diagnostic methods. Functional diagnostic tests (pupil symptoms, ferns, mucus tension, basal temperature measurement). Analysis of the basal temperature graph. Tests with hormones. Test with gestagens. Test with estrogens and gestagens. Test with dexamethasone. Cytological examination of vaginal smears: maturation index, karyopycnotic index, eosinophilic index.
Topic 3. Gynecological endocrinology
pr.tr.3 "Gynecological endocrinology" (full-time course) Classification of hormones. Metabolism of sex steroids. Sex steroid receptors hormones Estrogens. Progestogens. Androgens. Their clinical application. Anti-estrogens. Antiandrogens. Antigestagens. Determination of hormones in the blood: FSH, LH, prolactin, progesterone, estradiol, total testosterone, free testosterone. Study of this topic involves theoretical work in the classroom, work in women's counseling medical institution (according to the agreement on cooperation between the clinical medical institution and the University) provided there are no quarantine restrictions.
Topic 4. Gynecological endocrinology

pr.tr.4 "Gynecological endocrinology" (full-time course)

Basic principles of endocrine diagnostics. Endocrinological functional tests. Test with progestogens. Estrogen-progestogen test. Test with gonadoliberins. Sample from ACTH. Suppression test with dexamethasone. Glucose tolerance test. Study of this topic involves theoretical work in the study room, work in the women's room medical facility consultations (according to the cooperation agreement between the clinical medical institution and the University) provided there are no quarantine restrictions.

Topic 5. Endocrinology of childhood and adolescence

pr.tr.5 "Endocrinology of childhood and adolescence" (full-time course)

Normal pubertal period. Adrenarche. Gonadarche. Premature puberty Diagnostics. Delayed puberty. Methods of diagnosis and treatment. Gigantism Diagnostics. Treatment. Hormonal contraception in adolescence and young adulthood. Amenorrhea in adolescence. Diagnostics. Treatment. The study of this topic involves theoretical work in the study room, work in the women's medical consultation institution (according to the cooperation agreement between the clinical treatment institution and University) provided there are no quarantine restrictions.

Topic 6. Dysfunction of the thyroid gland

pr.tr.6 "Dysfunction of the thyroid gland" (full-time course)

Synthesis of thyroid hormones and their effect on reproductive function. Hypothyroidism. Hyperthyroidism. Euthyroidism. Clinical picture. Diagnostics. Clinical examination methods. Laboratory examination. Visualization methods of diagnosis. Puncture biopsy with cytological research. Treatment. The study of this topic involves a theoretical one work in a study room, work in a women's consultation of a medical institution (according to agreement on cooperation between a clinical medical institution and the University) provided absence of quarantine restrictions.

Topic 7. Premature ovarian failure

pr.tr.7 "Premature ovarian failure" (full-time course)

Premature ovarian failure. Etiology. Autoimmune diseases. Clinical picture. Diagnostics. Basic diagnosis. Criteria for making a diagnosis. Further examinations in which premature ovarian failure is diagnosed. Hormonal therapy. The study of this topic involves theoretical work in the classroom, work in the women's consultation of the medical institution (according to the cooperation agreement between the clinical medical institution and the University) provided there are no quarantine restrictions.

Topic 8. Endocrinology of the menopausal period

pr.tr.8 "Endocrinology of the menopausal period" (full-time course)

Etiology and clinical picture of menopausal disorders. Diagnostics and differential diagnosis of menopausal disorders. tides Sleep disorders. Depressive disorders. Urogenital syndrome. Hormonal therapy and non-hormonal medication treatment. The study of this topic involves theoretical work in the classroom, solving situational problems, testing, working in a women's medical consultation institution (according to the cooperation agreement between the clinical treatment institution and University) provided there are no quarantine restrictions.

Topic 9. Instrumental research methods in gynecology. Probing of the uterine cavity. Biopsy. Puncture of the posterior vault.

pr.tr.9 "Instrumental research methods in gynecology. Probing of the uterine cavity. Biopsy. Puncture of the posterior vault." (full-time course)

The technique of probing the uterus to determine the patency of the cervical canal, the position and direction of the uterine cavity, its length and the state of relief of the uterine walls. Indications and contraindications for probing. The use of sounding is not only for diagnostic purposes, but also before some operations (scraping the walls of the cavity uterus, amputation of the cervix, etc.). Biopsy - excision and microscopic examination a piece of tissue for diagnostic purposes. Biopsy tools. Machinery conducting a biopsy. Puncture of the abdominal cavity through the posterior vault. shows, contraindications, tools, technique for diagnosing the disorder ectopic pregnancy, ovarian apoplexy, pelvioperitonitis. Methods of pain relief. The study of this topic involves theoretical work in the classroom, solutions situational problems, testing, work in a simulation center (on a phantom practicing the skills of probing the uterine cavity, puncture of the posterior vault).

Topic 10. Instrumental research methods in gynecology. Diagnostic scraping uterine cavity.

pr.tr.10 "Instrumental research methods in gynecology. Diagnostic scraping uterine cavity." (full-time course)

Instrumental removal of the functional layer of the mucous membrane of the uterus together with pathological formation. Diagnostic role in uterine bleeding, dysfunctional disorders of the menstrual cycle, suspicion of malignant tumors uterine, placental and decidual polyps, mucosal hyperplasia and polyposis uterine cavity, incomplete miscarriage. Diagnostic tools scraping of the uterine cavity. Histological examination of endometrial scraping. shows, contraindications, procedure technique. Compliance with the rules of asepsis, antiseptics. Technique of general or local anesthesia. Complications, diagnosis, prevention. Fractional diagnostic scraping of the uterine cavity - instrumental removal mucous membrane of the neck and uterine cavity. The study of this topic involves theoretical work in the classroom, work in the simulation center (on a phantom practicing the skills of diagnostic scraping of the uterine cavity).

Topic 11. Endoscopic research methods in gynecology.

pr.tr.11 "Endoscopic research methods in gynecology." (full-time course)

Examination of the cavity of internal organs by examining them with the help of special instruments devices with a lighting device. Laparoscopy is used in gynecology, hysteroscopy, culdoscopy, colposcopy, cystoscopy, rectoromanoscopy, diaphonoscopy, etc. Effectiveness of the method. Advantages and disadvantages of the method. Indications and contraindications for use. The study of this topic involves theoretical work in training room, work in the simulation center (simulator of office hysteroscopy) work in the operating room of a medical institution (according to the cooperation agreement between the clinical medical institution and the University) provided there are no quarantine restrictions.

Topic 12. Endoscopic methods of research in gynaecology. Hysteroscopy.

pr.tr.12 "Endoscopic methods of research in gynaecology. Hysteroscopy." (full-time course)

The method of examination of the uterine cavity using a hysteroscope. Indications for conducting hysteroscopy Office hysteroscopy. Hysteroresectoscopy. Tools and equipment for hysteroscopy. Methods of performing hysteroscopy, effective methods analgesia, technique of conducting. Advantages and disadvantages of the method. Performance control performed treatment, before performing surgical interventions and manipulations in uterine cavity. Peculiarities of hysteroscopy in dysfunctional cases uterine bleeding, bleeding during menopause, suspected uterine fibroids, adenomyosis and endometrial cancer, anomalies of uterine development. Carrying out polypectomy, excision of partitions and synechiae in the uterine cavity, removal of foreign bodies and intrauterine spirals from the uterine cavity with the help of hysteroresectoscopy. Possible complications during hysteroscopy. Contraindication before hysteroscopy: general infectious diseases, severe condition of the patient diseases of the cardiovascular system, parenchymal organs, III-IV degrees cleanliness of the vaginal secretion, acute inflammatory diseases of the female genital organs. The study of this topic involves theoretical work in the classroom, work in simulation center (office hysteroscopy simulator) work in the operating room medical institution (according to the agreement on cooperation between the clinical medical institution and the University)

Topic 13. Endoscopic research methods in gynecology. Colposcopy. Cervicoscopy

pr.tr.13 "Endoscopic research methods in gynecology. Colposcopy. Cervicoscopy" (full-time course)

Colposcopy - examination of the cervix and vaginal mucosa with the help of an optical instrument colposcope device. Colposcopy can detect changes in the epithelium of the cervix uterus, precancerous conditions, select a tissue area for biopsy, and also observe the dynamics of changes during certain methods of treatment of the cervix and vagina. Necessary tools and equipment for colposcopy. The technique of downtime and extended colposcopy. Schiller's test. The concept of adequate and inadequate colposcopic picture. Colposcopic signs of LSIL, HSIL. Advantages and disadvantages of the method. Indications and contraindications for use. Cervicoscopy - examination of the cervical canal for using a cervicoscope through a colposcope. Advantages and disadvantages of the method. Indications and contraindications for use.The study of this topic involves theoretical work in study room, work with a colposcope in the office of pathology of the cervix of the uterus institution (according to the cooperation agreement between the clinical treatment institution and University) provided there are no quarantine restrictions. Study of colpophotograms.

Topic 14. Endoscopic research methods in gynecology. Laparoscopy. Culdoscopy.

pr.tr.14 "Endoscopic research methods in gynecology. Laparoscopy. Culdoscopy." (full-time course)

Examination of the organs of the abdominal cavity and pelvis with the help of optical instruments introduced through an incision in the anterior abdominal wall. When using an incision through the back vaults use culdoscopy. Laparoscopy in differential diagnosis tumors of the uterus and its appendages, in case of suspicion of scleropolycystosis, internal endometriosis, anomalies of the development of internal genital organs, tuberculosis, ectopic pregnancy, and also to clarify the causes of infertility and pain of unknown etiology. Contraindications to laparoscopy. Peculiarities of preparation for laparoscopic surgery. Necessary tools and equipment. Analgesia and technique laparoscopic interventions.Possible complications during laparoscopy and diagnostic features of injury to the vessels of the anterior abdominal wall, omentum, and mesentery intestine and intestinal wall. Culdoscopy technique. Indications, contraindications. The study of this topic involves theoretical work in the classroom, work in endoscopic center of the university (practicing laparoscopic skills trknazheri), work in the operating room of a medical institution (according to the agreement on cooperation between clinical medical institution and the University) provided there are no quarantines restrictions.

Topic 15. Hardware research methods in gynecology. Ultrasound of the uterus and appendages.

pr.tr.15 "Hardware research methods in gynecology. Ultrasound of the uterus and appendages." (full-time course)

Ultrasonography in gynecology is a method based on the ability of tissues of different densities reflect or absorb ultrasound differently. Modern ultrasound equipment allows you to examine the organs of the small pelvis with the help of various sensors: abdominal, vaginal, rectal. Ultrasound in gynecological practice used for differentiation of neoplasms of the uterus and ovaries, diagnostics ectopic pregnancy. The advantage of the method is its high informativeness, the correct establishment of the diagnosis, the simplicity of the study and the absence of contraindications. Disadvantages of the method. Peculiarities of patient preparation for examination. Study of this topic involves theoretical work in the classroom, work in the ultrasound office diagnostics of a medical institution.

Topic 16. Hardware research methods in gynecology. Computed tomography

pr.tr.16 "Hardware research methods in gynecology. Computed tomography" (full-time course)

Computed tomography is a method by which images are obtained cross-section of the body without superimposing objects. Diagnostics with help computed tomography is based on radiological symptoms: localization, shape, sizes, density of tumor formations, as well as compression or germination by the tumor surrounding tissues, condition of lymph nodes. The principle of computed tomography. Effectiveness of the method. Advantages and disadvantages of the method. Indications and contraindications to application. The study of this topic involves theoretical work in the classroom, work in the computed tomography office at the University Clinic. Transcript computer tomography.

Topic 17. X-ray research methods. X-ray of the Turkish saddle, hysterosalpingography

pr.tr.17 "X-ray research methods. X-ray of the Turkish saddle, hysterosalpingography" (full-time course)

Hysterosalpingography is a method of examining the uterine cavity and fallopian tubes using radiography. This method is used to determine patency fallopian tubes, uterine malformations, endometriosis, fallopian tube tuberculosis, presence submucous fibromatous nodes, synechiae, polyps. Instruments and contrast agents, used for hysterosalpingography. Conducting technique hysterosalpingography. Efficiency of the method. Advantages and disadvantages of the method. Indications and contraindications for use. Possible complications. Indications for X-ray Sella Turcica in gynecology. The study of this topic involves theoretical work in study room, work in the x-ray room of a medical institution (according to cooperation agreement with the University) provided there are no quarantine restrictions. Master the skills of reading radiographs.

Topic 18. X-ray research methods. Gynecography (pneumopelviography). Angiohystero-salpingography Lymphography. Phlebography

pr.tr.18 "X-ray research methods. Gynecography (pneumopelviography). Angiohystero-salpingography Lymphography. Phlebography" (full-time course)

Indications and contraindications for use. Possible complications. Angiohystero-salpingography - simultaneous contrast of pelvic vessels, uterine cavity and fallopian tubes. Efficiency method Advantages and disadvantages of the method. Indications and contraindications for use. Lymphography - determination of the state of the lymphatic system by use radiopaque substances. Effectiveness of the method. Advantages and disadvantages of the method. Indications and contraindications for use. Phlebography - determination of the venous condition mesh of the small pelvis by using contrast agents. Effectiveness of the method. Advantages and disadvantages of the method. Indications and contraindications for use. Studying the data topics involves theoretical work in the classroom, work in the X-ray room office of the medical institution (according to the agreement on cooperation with the University) provided absence of quarantine restrictions. Master the skills of reading radiographs.

Topic 19. Methods of laboratory diagnostics in obstetric practice. Biochemical screening programs

pr.tr.19 "Methods of laboratory diagnostics in obstetric practice. Biochemical screening programs" (full-time course)

General clinical and biochemical analyses. Hormonal diagnostics of the I, II and III trimesters pregnancy Examination for infections of the perinatal period. Determination of blood group pregnant woman, titer of anti-Rhesus antibodies. Hormonal mirror. Smear on leakage amniotic fluid Smears on microflora. Fence technique. Biochemical markers congenital malformations (chorionic gonadotropin, alpha-fetoprotein, estriol) in different periods of pregnancy. Their diagnostic value, median levels of these indicators. The study of this topic involves theoretical work in the classroom, work in clinical laboratory, geneticist's office on the basis of a medical institution (according to the agreement on cooperation with the University) provided there are no quarantine restrictions.

Topic 20. Cardiotocography

pr.tr.20 "Cardiotocography" (full-time course)

Fetal monitoring is a method of examining fetal heartbeat and uterine tone. Indication, terms and technique of conducting CTG. Equipment for carrying out CTG. Efficiency methods. Evaluation of results. The study of this topic involves theoretical work in study room, work in departments of a medical institution (according to the agreement on cooperation with the University) provided there are no quarantine restrictions. To learn evaluate the results of cardiotocography, distinguish the norm from pathology.

Topic 21. Ultrasound diagnostics in obstetrics

pr.tr.21 "Ultrasound diagnostics in obstetrics" (full-time course)

Ultrasound examination, principles, indications, terms of conduct, effectiveness diagnosis of various fetal diseases, evaluation of the state of the placenta, ultrasound strategy prenatal diagnosis. The timing of ultrasound screening is optimal terms of ultrasound screening in obstetrics. Ultrasound fetoplacentometry. Doppler measurement of blood flow in the uterine artery, umbilical artery, fetal aorta, middle cerebral artery. Diagnostic criteria for blood flow disorders. Critical blood flow parameters. Tactics of managing a pregnant woman in case of uterine-placental disorders and fetal blood flow. Indications for immediate delivery. Definition of biophysical fetal profile. The study of this topic involves theoretical work in the classroom, work in the ultrasound diagnostic office of a medical institution (according to the agreement on cooperation with the University) provided there are no quarantine restrictions.

Topic 22. Prenatal ultrasound diagnosis of congenital malformations of the fetus

pr.tr.22 "Prenatal ultrasound diagnosis of congenital malformations of the fetus" (full-time course)

Non-invasive methods of prenatal diagnosis. Ultrasound research, principles, indications, timing, effectiveness of diagnosis of various fetal diseases, assessment of the state of the placenta. Strategy of ultrasound prenatal diagnosis. Deadlines conducting ultrasound screening. Modern possibilities of prenatal ultrasound diagnosis of congenital malformations. Optimal terms of ultrasound screening in midwifery. Ultrasound fetoplacentometry. Doppler blood flow in the uterus artery, umbilical artery, fetal aorta, middle cerebral artery. Diagnostic criteria blood flow disorders. Critical blood flow parameters. Tactics of managing a pregnant woman disorders of utero-placental and fetal blood flow. Indications for immediate giving birth Determination of the biophysical profile of the fetus. The study of this topic involves theoretical work in the classroom, work in the ultrasound diagnostics room medical institution (according to the agreement on cooperation with the University) in case of absence quarantine restrictions.

Topic 23. Invasive methods of prenatal diagnosis in obstetrics

pr.tr.23 "Invasive methods of prenatal diagnosis in obstetrics" (full-time course)

General characteristics. indications and contraindications Methods of invasive prenatal diagnostics, terms of their implementation. Indications and contraindications for conducting invasive prenatal diagnosis, possible complications due to invasive diagnostics. Conditions for conducting invasive diagnostics. The study of this topic involves theoretical work in the classroom, work in the departments of a medical institution (according to the cooperation agreement with the University) provided that there are no quarantine periods restrictions.

Topic 24. Methodology of conducting invasive prenatal research methods

pr.tr.24 "Methodology of conducting invasive prenatal research methods" (full-time course) Indications, contraindications, conditions and technique of amniocentesis. Research amniotic fluid - the level of alpha-fetoprotein, sphingomyelin, optical studies amniotic fluid density, bilirubin level. Chorion biopsy technique, cordocentesis, placentacentesis, amniocentesis. Study of cells of chorionic villi, placenta (direct method, cultivation). Cultivation of amniocytes. Cordocentesis. Indications, contraindications, conditions and technique of cordocentesis. Efficiency methods. Toolkit. Complications during cordocentesis. Analysis of the umbilical cord fetal blood The study of this topic involves theoretical work in the classroom, work in departments of a medical institution (according to the cooperation agreement with the University) provided there are no quarantine restrictions.
Topic 25. Practice-oriented test
pr.tr.25 "“Practice-oriented credit”" (full-time course) Questions for the entire course “Functional diagnostic methods in obstetrics and gynaecology”: theory and test control. Course assessment. Summing up the results.

9. Teaching methods

9.1 Teaching methods

Course involves learning through:

TM1	Problem-based learning
TM2	Practical training
TM3	Case-based learning
TM4	Research Based Learning
TM5	Experimental training
TM6	Electronic learning

The training combines group classes and individual assignments. Compulsory learning activities include work on specific clinical cases, role-playing games, discussions, practical demonstrations and presentations. The course is taught using modern teaching methods (CBL, TBL). They contribute not only to developing professional skills, but also stimulate creative and scientific activity aimed at training practice-oriented specialists.

The course provides students with the following soft skills: GC 1. Ability to abstract thinking, analysis and synthesis. GC 2. Ability to learn and master modern knowledge. GC 3. Knowledge and understanding of the subject area and understanding of professional activities. GC 4. Ability to adapt and act in a new situation. GC 5. Ability to make informed decisions. GC 6. Ability to use information and communication technologies. GC 7. Ability to apply knowledge in practical situations. GC 8. Determination and perseverance in relation to tasks and responsibilities. To be able to use the basic methods of functional diagnostics in obstetric and gynaecological practice. Learning how to choose the right diagnostic method from a large number of different types of examinations in obstetrics and gynaecology that are necessary for disease differentiation.

9.2 Learning activities

LA1	E-learning (e.g. Google Classroom, Zoom, YouTube)
LA2	Analysis and discussion of cases (educational/practical/research)
LA3	Performing a group practical task
LA4	Performing practical tasks
LA5	Evaluation and interpretation of research data
LA6	Conducting methodological research or observing a phenomenon

10. Methods and criteria for assessment

10.1. Assessment criteria

Definition	National scale	Rating scale
Outstanding performance without errors	5 (Excellent)	170 ≤ RD ≤ 200
Above the average standard but with minor errors	4 (Good)	164 ≤ RD < 169
	4 (Good)	140 ≤ RD < 163
Fair but with significant shortcomings	3 (Satisfactory)	127 ≤ RD < 139
	3 (Satisfactory)	120 ≤ RD < 126
Fail – some more work required before the credit can be awarded	2 (Fail)	70 ≤ RD < 119
	2 (Fail)	0 ≤ RD < 69

10.2 Formative assessment

	Description	**Deadline, weeks**	**Feedback**
FA1 Peer assessment	Partnership interaction aimed at improving learning outcomes by comparing one's current level of performance with previous indicators. Provides an opportunity to analyze your own educational activities	Throughout the entire period of studying the course	Adjustment of teaching approaches with students based on assessment results
FA2 Intermediate assessment of the practical case (preparation, presentation, defence)	The case method helps to reveal and develop the qualities and abilities of medical students necessary for their future work. It develops clinical thinking, analytical skills, independence in decision-making, communication skills and working with a sufficiently large amount of information.	Throughout the entire period of studying the course	Oral comments from the teacher The student is given extra points (from 5 to 10) depending on the type of research project

FA3 Teacher's guidance in the process of completing practical tasks	The guidelines describe the methods of pedagogical control over the professional activities of students. Efficiency is determined by compliance with all stages of practical tasks. The effectiveness of skill formation depends on the level of practical competence.	Throughout the entire period of studying the course	Advising students in working with patients. Direct and indirect observation of student work "at the bedside" with further determination of practical training levels
FA4 Survey and oral comments from the teacher on its results	It provides an opportunity to identify the state of students' learning experience in accordance with the set goals. One finds out prerequisites for result formation, causes of difficulties. Also, you adjust the learning process, track dynamic learning outcomes and predict their development.	Throughout the entire period of studying the course	According to the obtained data on learning outcomes, based on their analysis, it is proposed to determine the grade as an indicator of achievements of students' learning activities
FA5 Tests (automated tests) to monitor students' academic achievements	A method of effective testing of the level of knowledge, skills and abilities on each course topic. Testing allows you to check the mastery of educational material on each topic.	Throughout the entire period of studying the course	The student must provide 60% of correct answers, which is an admission to the practical part of the class
FA6 Discussions in focus groups	The method allows all participants to engage in the process of discussing and justifying their own opinions through multilateral communication. One develops the ability to conduct a professional discussion, cultivates respect for colleagues and the ability to generate alternative ideas and proposals	Throughout the entire period of studying the course	Assessment of the student's ability to work in a team. Ability to justify their decisions. Determination of theoretical training levels, which is reflected in the relevant grade

10.3 Summative assessment

	Description	**Deadline, weeks**	**Feedback**

SA1 Completion of a practical case (preparation, presentation, defence)	The case method helps to reveal and develop the qualities and abilities of medical students necessary for their future work. It improves clinical thinking, analytical skills, independence in decision-making, communication skills, working with a sufficiently large amount of information.	Throughout the entire period of studying the course	Assessment of student's ability to think clinically, justify their decisions, clearly express their thoughts, determine the level of theoretical training
SA2 Intermediate module control	A method of effective testing of knowledge, skills and abilities in the course. Testing allows you to check the learning outcomes during the cycle and determine the level of knowledge at the end of the course.	Final computer test at the end of the course (10 points)	It is an admission to the test
SA3 Performing situational exercises (preparation, presentation, defence)	It includes oral questioning, interpretation of laboratory and instrumental methods of examination, objective structured clinical examination of the patient, solving clinical individual and group cases, routine testing. Students involved in research activities have the opportunity to present results of their research at conferences, competitions of student research papers, etc. (incentive activities, additional points).	Throughout the entire period of studying the course	The result of each lesson is taken into account in the final grade for the practical class
SA4 Implementation of a group research project (preparation, presentation, defence)	Method of effective testing of knowledge and skills in the course. Students who are involved in research activities have the opportunity to present the results of their own research at conferences, competitions of student scientific works, etc. (encouraging activities, additional points). That verifies the level of acquired knowledge and skills.	Throughout the entire period of studying the course	The result affects a comprehensive assessment for a practical class
SA5 Assessment of practical skills and manipulations	Comprehensive development of practical components in a safe simulation environment. It provides an opportunity to learn skills from a variety of medical emergencies.	In the last class, the student must successfully acquire practical skills	It is mandatory for admission to credit. Maximal points 80, minimal points 48
SA6 Differential credit	That includes oral examination, interpretation of laboratory and instrumental examination methods, objective structured clinical examination of the patient, solution of clinical individual and group cases, ongoing testing. Students involved in research activities have the opportunity to present results of their own research at conferences, student research competitions, etc. (encouraging activities, additional points).	Throughout the entire period of studying the course	The learning result influences a comprehensive assessment for a practical lesson

Form of assessment:

		Points	Можливість перескладання з метою підвищення оцінки
The first semester of teaching		**200 scores**	
SA1. Completion of a practical case (preparation, presentation, defence)		**20**	
		20	No
SA2. Intermediate module control		**40**	
		40	No
SA3. Performing situational exercises (preparation, presentation, defence)		**20**	
		20	No
SA4. Implementation of a group research project (preparation, presentation, defence)		**20**	
		20	No
SA5. Assessment of practical skills and manipulations		**20**	
		20	No
SA6. Differential credit		**80**	
		80	No

Course work: When mastering the course materials, the student is awarded a maximum of 5 points for each practical class (the score is given in the traditional 4-point rating system). At the end of the academic semester, the average arithmetic performance of a student is calculated. The maximal points that a student can receive in practical classes during the academic semester is 120. The points are calculated via the formula: the average arithmetic number of current grades is multiplied by 24. For example, if the arithmetic average of current grades is 3.0, then 3 * 24 = 72. This sum of points is the minimum for admission to the credit. If the arithmetic average of current grades is 5.0, then 5 * 24 = 120. This is the maximal sum of points a student can get for his performance. For a presentation or report, the same number of points is awarded for one current class. The student is allowed to credit if the curriculum requirements are met and if he has scored at least 72 points for the current educational activity. Final control: practice-oriented differentiated credit is performed according to the schedule at the semester end. Credit cards contain 3 theoretical questions on a variety of topics and cover all course sections (20 points each), 1 practical task (10 points) and test questions (10 points). Credit is completed if students score at least 48 out of 80 points. The score for final control is given in the traditional 4-point rating system with subsequent transfer. In general, “5” corresponds to 80 points, “4” – 64 points, “3” – 48 points, “2” – 0 points. The overall course assessment consists of the sum of points scored for the current performance and final control. The total score in the course cannot exceed 200 points.

11. Learning resources

11.1 Material and technical support

MTS1	Information and communication systems
MTS2	Library resources
MTS3	Computers, computer systems and networks
MTS4	The simulation center. It is equipped with a phantom of a female pelvis, a training dummy for practical skills of laparoscopic intervention, suturing, dummies of individual organs (a uterus for practicing techniques of taking material for bacterioscopic examination). It also provides a set of tools: a Cusco mirror, a Simpson mirror with a retractor, a set of brushes, tongs, a uterine probe, etc
MTS5	Technological, instrumental, metrological, diagnostic, information means and equipment
MTS6	Software (to support distance learning)
MTS7	Municipal enterprise of the Sumy Oblast Council “Regional Clinical Perinatal Center”

11.2 Information and methodical support

Essential Reading	
1	Williams Obstetrics, 25th Edition, Study Guide 25th Edition by Shivani Patel, Scott Roberts, Vanessa Rogers, Ashley Zink, Elaine Duryea, Jamie Morgan. USA. Mc. Graw Hill Education. 2021. 1340 p
2	William Gynecology, Fourth Edition by Barbara L. Hoffman, John O.Schorge, Lisa M. Halvorson, Cherine A. Hamid, Marlen M. Corton, Joseph I. Schaffer. Mc Graw-Hill Education. New York. 2020. 1253 p
3	Clinical Obstetrics and Gynaecology: 4th Edition / Brian A. Magowan, Philip Owen, Andrew Thomson. All-Ukrainian specialized publishing house "Medytsina", 2021. 454 p.
4	Obstetrics. Volume 1. Basic course. Likhachev V.K. Publisher: New book. 2021.392 p.
5	Gynecology. 2nd edition: a guide for doctors. Likhachev V.K. Publisher: New book, 2021; 688 p.
Supplemental Reading	
1	Te Linde's Operative Gynecology. Twelft edition. Victoria L. Handa, Linda Van Li. Hardcover edition. New York. 2019. 339 p
2	Методичні вказівки з циклу тематичного вдосконалення "Гістероскопія" [Текст] : лікарів-інтернів, лікарів-курсантів, акушерів-гінекологів, а також студентів спеціальності 222 "Медицина" / І. М. Нікітіна. — Суми : СумДУ, 2022. — 101 с.
3	Te Linde's Operative Gynecology. Twelft edition. Victoria L. Handa, Linda Van Li. Hardcover edition. New York. 2019. 339 p
4	Obstetrics and Gynecology in 2 volums, vol.2 Gynecology, edited V.I. Gryshchenko, M.O. Shcherbina, edition "Medytsina", 2022. 352 p

5	Oxford Textbook of Obstetrics and Gynaecology , Arulkumaran Sabaratnam, Ledger William, Denny Lynette, Doumouchtsis Stergios, "Oxford University Press" , 2020. 872 p
6	Cunningham and Gilstrap's Operative Obstetrics, Third Edition 3rd Edition, Kindle Edition. Edward R. Yeomans, Barbara L. Hoffman, Larry C. Gilstrap, F. Gary Cunningham. Mc Graw-Hill Education. New York. 2020. 1253 p.
7	Obstetrics and Gynecology in 2 volums, vol.1 ,Obstetrics, edited V.I.Gryshchenko, M.O. Shcherbina, edition "Medytsina", 2020. 392 p
8	Gabbe's Obstetrics Study Guide: A Companion to the 8th Edition Vanita D. Jain, Audrey A. Merriam, Eva K. Pressman, Rini Banerjee Ratan, Alyssa Stephenson-Famy, Thaddeus P. Waters. Copyrighted by Elsevier. 2021. 1346 p.

COURSE DESCRIPTOR

№	Course Bescriptor	Total hours	Classroom work, hours				Independent work of students, hours						
			Total hours	Lectures	Workshops (seminars)	Labs	Total hours	Self-study of the material	Preparation for workshops (seminars)	Preparation for labs	Preparation for assesment	Independent extracurricular tasks	
1	2		3	4	5	6	7	8	9	10	11	12	13
full-time course													
Module 1. Functional diagnostics in obstetrics and gynaecology													
1	Modern methods of examination of gynaecological patients. Laboratory methods of research	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
2	Hormonal testing (blood hormones, functional diagnostic tests)	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
3	Gynecological endocrinology	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
4	Gynecological endocrinology	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
5	Endocrinology of childhood and adolescence	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
6	Dysfunction of the thyroid gland	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
7	Premature ovarian failure	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
8	Endocrinology of the menopausal period	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
9	Instrumental research methods in gynecology. Probing of the uterine cavity. Biopsy. Puncture of the posterior vault.	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
10	Instrumental research methods in gynecology. Diagnostic scraping uterine cavity.	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
11	Endoscopic research methods in gynecology.	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
12	Endoscopic methods of research in gynaecology. Hysteroscopy.	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
13	Endoscopic research methods in gynecology. Colposcopy. Cervicoscopy	2.5	2	0	2	0	0.5	0	0.5	0	0	0	
14	Endoscopic research methods in gynecology. Laparoscopy. Culdoscopy.	2.5	2	0	2	0	0.5	0	0.5	0	0	0	

1	2	3	4	5	6	7	8	9	10	11	12	13
15	Hardware research methods in gynecology. Ultrasound of the uterus and appendages.	2.5	2	0	2	0	0.5	0	0.5	0	0	0
16	Hardware research methods in gynecology. Computed tomography	2.5	2	0	2	0	0.5	0	0.5	0	0	0
17	X-ray research methods. X-ray of the Turkish saddle, hysterosalpingography	2.5	2	0	2	0	0.5	0	0.5	0	0	0
18	X-ray research methods. Gynecography (pneumopelviography). Angiohystero-salpingography Lymphography. Phlebography	2.5	2	0	2	0	0.5	0	0.5	0	0	0
19	Methods of laboratory diagnostics in obstetric practice. Biochemical screening programs	2.5	2	0	2	0	0.5	0	0.5	0	0	0
20	Cardiotocography	2.5	2	0	2	0	0.5	0	0.5	0	0	0
21	Ultrasound diagnostics in obstetrics	2.5	2	0	2	0	0.5	0	0.5	0	0	0
22	Prenatal ultrasound diagnosis of congenital malformations of the fetus	2.5	2	0	2	0	0.5	0	0.5	0	0	0
23	Invasive methods of prenatal diagnosis in obstetrics	2.5	2	0	2	0	0.5	0	0.5	0	0	0
24	Methodology of conducting invasive prenatal research methods	2.5	2	0	2	0	0.5	0	0.5	0	0	0
25	Practice-oriented test	2.5	2	0	2	0	0.5	0	0.5	0	0	0
Assesment												
1	Graded Credit	6	0	0	0	0	6	0	0	0	6	0
Independent extracurricular tasks												
1	extracurricular tasks	81.5	0	0	0	0	81.5	0	0	0	0	81.5
Total (full-time course)		*150*	*50*	*0*	*50*	*0*	*100*	*0*	*12.5*	*0*	*6*	*81.5*

	UNIVERISTY POLICIES FOR THE COURSE «Functional diagnostics in obstetrics and gynecology» **Higher education level** The Second Level Of Higher Education, National Qualifications Framework Of Ukraine – The 7th Level, QF-LLL – The 7th Level, FQ-EHEA – The Second Cycle **Major: Educational programme** 222 Medicine: Medicine **Year of study** 2025 **Duration** one semester **Mode of study** full-time course **Language of instruction** English
Teacher(s)	Nikitina Iryna Mykolaivna
Contact	Нікітіна Ірина Миколаївна, доктор медичних наук, професор e-mail: i.nikitina@med.sumdu.edu.ua
Time and room for giving consultations	KNP SOR "Regional Clinical Perinatal Center", every Thursday 16.00-18.00
Links to online educational platforms	https://elearning.sumdu.edu.ua/works/7295/nodes/2181597#anchor2181597 https://elearning.sumdu.edu.ua/works/7295/nodes/2181665#anchor2181665 https://elearning.sumdu.edu.ua/works/7295/nodes/2181666#anchor2181666 https://elearning.sumdu.edu.ua/works/7295/nodes/2181667#anchor2181667 https://elearning.sumdu.edu.ua/works/7295/nodes/2186246#anchor2186246 https://elearning.sumdu.edu.ua/works/5071/nodes/1051769#anchor1051769 https://elearning.sumdu.edu.ua/works/5071/nodes/1051773#anchor1051773
Syllabus	https://pg.cabinet.sumdu.edu.ua/report/course/3c3e39ce002c0e1542988b0690aa0fd95017966
Channels for maintaining contact with the group for receiving and working on materials	Adjustment of approaches to learning together with students, taking into account the results of the assessment. Counseling of students in work with and standardized patient, direct and indirect observation of the work of acquirers "near bed" of the patient with further determination of the level of practical training. According to the received data on the results of training, based on their analysis, it is proposed to define the assessment as an indicator of achievements educational activities of applicants. Assessment of the student's ability to team work, the ability to justify one's decisions, determining the level of theoretical training

POLICIES

Academic integrity policy

Participants must complete all tasks according to the course requirements independently. Participants are not allowed to cheat during the written module or summative test. The assignments should not contain

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

Політика щодо використання інструментів штучного інтелекту при виконанні завдань навчальної дисципліни

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

The policy for the use of artificial intelligence tools (ChatGPT, Tome, etc.) is announced by the teacher at the beginning of the course.

Несанкціоноване використання інструментів штучного інтелекту є порушенням академічної доброчесності.

Політика щодо використання матеріалів з джерел відкритого доступу

When students use materials from open access sources for the preparation of works defined by the syllabus and regulations of the academic discipline, they must comply with the terms of the Creative Commons licenses for the use of copyright objects.

Attendance policy

The student must attend 100% practical and 60% lecture classes. In case of missing classes, the student must make up for the missed classes classes in accordance with the practice schedule approved on the department in the presence of the appropriate order of the dean's office.

Deadlines and course retake policy

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

Assessment appeals policy

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

Assessment criteria

Assessment policy

When learning the materials of the module, the student is awarded a maximum of 5 points for each practical session (the grade is given in the traditional 4-point grading system). At the end of the academic year, the student's arithmetic average is calculated. The maximum number of points that a student can receive in practical classes during the academic year is 100. The number of points of a student is calculated using the formula of multiplying 100 by the arithmetic average and dividing by 5. For diagnostic testing, the student receives a maximum of 10 points. The minimum number of points that a student must receive is 6 points. The maximum number of points for the student's current educational activity is 120. The student is admitted to the diff. credit provided that the requirements of the educational program are met and in the event that he scored at least 72 points for the current educational activity: 60 points during practical classes, 6 points for

the implementation of a practical case (preparation, presentation, defense) and 6 points for testing. Diff. settlement is carried out according to the schedule at the end of the cycle. The tickets contain 3 theoretical questions on a variety of topics and cover all sections of the academic discipline (15 points each), 1 practical task (15 points) and questions on providing emergency care (20 points). The credit is given to the student if he scored at least 48 points out of 80. Encouraging points are added to the grade in the discipline for the implementation of an individual research project (defense of the student thesis 12 points, speech at the conference 5 points, poster presentation at the conference 4 points, theses of the reports 3 points). The total score for the discipline cannot exceed 200 points.

The first semester of teaching

SA1. Completion of a practical case (preparation, presentation, defence), 20 scores	
5 (Excellent) *Outstanding performance without errors*	$170 \leq RD \leq 200$ **17-20 points**
4 (Good) *Above the average standard but with minor errors*	$140 \leq RD < 169$ **14-16 points**
3 (Satisfactory) *Fair but with significant shortcomings*	$120 \leq RD < 139$ **12-13 points**
2 (Fail) *Fail – some more work required before the credit can be awarded*	$0 \leq RD < 119$ **0-11 points**
SA2. Intermediate module control, 40 scores	
5 (Excellent) *Outstanding performance without errors*	$170 \leq RD \leq 200$ **34-40 points**
4 (Good) *Above the average standard but with minor errors*	$140 \leq RD < 169$ **28-33 points**
3 (Satisfactory) *Fair but with significant shortcomings*	$120 \leq RD < 139$ **24-27 points**
2 (Fail) *Fail – some more work required before the credit can be awarded*	$0 \leq RD < 119$ **0-23 points**
SA3. Performing situational exercises (preparation, presentation, defence), 20 scores	
5 (Excellent) *Outstanding performance without errors*	$170 \leq RD \leq 200$ **17-20 points**
4 (Good) *Above the average standard but with minor errors*	$140 \leq RD < 169$ **14-16 points**
3 (Satisfactory) *Fair but with significant shortcomings*	$120 \leq RD < 139$ **12-13 points**
2 (Fail) *Fail – some more work required before the credit can be awarded*	$0 \leq RD < 119$ **0-11 points**
SA4. Implementation of a group research project (preparation, presentation, defence), 20 scores	
5 (Excellent) *Outstanding performance without errors*	$170 \leq RD \leq 200$ **17-20 points**
4 (Good) *Above the average standard but with minor errors*	$140 \leq RD < 169$ **14-16 points**
3 (Satisfactory) *Fair but with significant shortcomings*	$120 \leq RD < 139$ **12-13 points**

2 (Fail) *Fail – some more work required before the credit can be awarded*	0 ≤ RD < 119 **0-11 points**
SA5. Assessment of practical skills and manipulations, 20 scores	
5 (Excellent) *Outstanding performance without errors*	170 ≤ RD ≤ 200 **17-20 points**
4 (Good) *Above the average standard but with minor errors*	140 ≤ RD < 169 **14-16 points**
3 (Satisfactory) *Fair but with significant shortcomings*	120 ≤ RD < 139 **12-13 points**
2 (Fail) *Fail – some more work required before the credit can be awarded*	0 ≤ RD < 119 **0-11 points**
SA6. Differential credit, 80 scores	
5 (Excellent) *Outstanding performance without errors*	170 ≤ RD ≤ 200 **68-80 points**
4 (Good) *Above the average standard but with minor errors*	140 ≤ RD < 169 **56-67 points**
3 (Satisfactory) *Fair but with significant shortcomings*	120 ≤ RD < 139 **48-55 points**
2 (Fail) *Fail – some more work required before the credit can be awarded*	0 ≤ RD < 119 **0-47 points**