

**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE**

**SUMY STATE UNIVERSITY**

Academic and Research Medical Institute

Кафедра хірургії, травматології, ортопедії та фтизіатрії

**DOCTOR'S PRACTICAL TRAINING**

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

Approved by Quality Council

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

Chairman of the Quality Council

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

## DATA ON REVIEWS AND APPROVAL

Author

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Review of the course descriptor	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/>
Considered and approved at the meeting of the work group of Study programme Медицина	Protocol dated _____ № _____  Head of the work group (Head of the Study programme)  _____ Prystupa Liudmyla Nykodymivna
Considered and approved at the meeting of the Кафедра хірургії, травматології, ортопедії та фтизіатрії	Protocol dated _____ № _____  Head of the Department  _____ Duzhyi Ihor Dmytrovych

# Syllabus

## 1. General information

<b>Full name</b>	Doctor`s Practical Training
<b>Full official name of a higher education institution</b>	Sumy State University
<b>Full name of a structural unit</b>	Academic and Research Medical Institute. Кафедра хірургії, травматології, ортопедії та фтизіатрії
<b>Author(s)</b>	Sytnik Oleksandr Leonidovych, Duzhyi Ihor Dmytrovych
<b>Cycle/higher education level</b>	The Second Level Of Higher Education, National Qualifications Framework Of Ukraine – The 7th Level, QF-LLL – The 7th Level, FQ-EHEA – The Second Cycle
<b>Semester</b>	4 weeks across 8 semester, 4 weeks across 10 semester
<b>Workload</b>	The discipline consists of 8 ECTS credits, 240 hours: 8 hours are for attestation (4 tests) in each practice cycle, 232 hours are for independent students' work
<b>Language(s)</b>	English

## 2. Place in the study programme

<b>Relation to curriculum</b>	Compulsory course available for study programme "Medicine"
<b>Prerequisites</b>	"Step-1", - knowledge of: Latin and medical terminology, - medical biology, - medical informatics, - human anatomy, - physiology, - histology, cytology and embryology, - biological and bioorganic chemistry, - microbiology, virology and immunology ,, - knowledge of clinical disciplines of the cycle of professional training, practice of patient care and nursing practice.
<b>Additional requirements</b>	There are no specific requirements
<b>Restrictions</b>	There are no specific restrictions

## 3. Aims

The purpose of the discipline is to achieve students' modern knowledge and consolidate professional skills acquired during studying the basic clinical and theoretical disciplines, and further improvement of practical skills in future activities at the district, city, regional medical institutions, in compliance with medical ethics and deontology

#### 4. Contents

Module 1. Therapeutic unit Content module 1. Therapy Topic 1. Clinical and instrumental diagnosis and treatment of therapeutic diseases. Conducting of medical documentations in the clinic of internal medicine. Topic 2 Laboratory, cytological, microbiological study of biological fluids and secretions. Analysis of sputum, pleural fluid, ascites fluid, cerebrospinal fluid. Topic 3. Spinal puncture. Indications for spinal puncture, equipment and technique. Topic 4 Test Content module 2. Pediatrics Topic 5. Anthropometric studies: body weight, height, head and chest circumference. Estimation of the child's physical development. Topic 6. X-ray, endoscopic, ultrasound methods of examination, treatment of the main pathology in children. Conducting of medical documentations in the pediatric department / outpatient clinic. Topic 7. Instrumental methods of hemodynamics' investigations in children. Topic 8. Electrocardiography, phonocardiography, echocardiography in children. Topic 9. Emergency care and cardiopulmonary resuscitation in children. Tema 10 Test Module 2. Surgical unit Content module 2. Surgery Topic 11. Clinical and instrumental diagnosis of surgical diseases of the thoracic and abdominal cavities, urinary system, musculoskeletal system. Topic 12. Surgical diagnostic manipulations and operations. Preoperative epicrisis, a protocol of operation. Topic 13. First aid for victims. Topic 14. Postoperative period. Postoperative complications, their prevention. Topic 15 Test Content module 4. Obstetrics and gynecology Topic 16. Clinical and instrumental diagnosis and treatment of the genital system diseases. Particularities of medical documentations in obstetrics and gynecology. Topic 17. Clinical and instrumental diagnosis, treatment of breast diseases. Topic 18. External (Leopold's techniques) and internal obstetric examination. Auscultation of the fetus. Topic 19. Reception of childbirth: protection of the perineum, performing of episiotomy or perineotomy in attempts, episiotomy or perineotomy wound suturing, manual care by the method of Tsovyanov 1,2 providing. Treatment of umbilical cord residue, estimation of placental birth, estimation of placental integrity. Topic 20 Test

#### 5. Intended learning outcomes

After successful completion of the internship, a student will be able to:

LO1	Identify the leading pathological symptoms and syndromes in the most common diseases.
LO2	Perform differential diagnosis and form a preliminary diagnosis of the most common diseases.
LO3	Indicate the patient the optimal methods of instrumental examination according the standards of evidence-based medicine, keep medical records.
LO4	Determine the nature and principles of treatment of patients, perform the necessary medical manipulations
LO5	Perfprm the resuscitation measures and provide the first aid to victims

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

Programme learning outcomes:

For 222 Medicine:

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

PO12	To provide emergency medical assistance under any circumstances, adhering to the relevant ethical and legal norms, by making an informed decision based on the main clinical syndrome (disease severity) and emergency diagnosis (according to the List 3) using standard schemes and predetermined approach under limited time conditions based on the principles of evidence-based medicine
PO13	To organize medical evacuation procedures among the population and the military under emergency and military operation conditions (including in the field), and during the phases of medical evacuation, given the existing system of medical evacuation provision
PO14	To perform medical procedures (according to the List 5) at a medical facility, at home or at work on the basis of a provisional clinical diagnosis and/or health parameters through making an informed decision and adhering to the relevant ethical and legal norms
PO16	To plan and implement a system of sanitary and preventive measures against the occurrence and spread of diseases among the population
PO17	To analyze epidemiological situation and carry out measures of mass and individual, general and local prevention of infectious diseases
PO21	To organize an appropriate level of individual safety (own and of those cared for) in case of typical dangerous situations in the individual field of activity

## 7. Learning activities

LA1	Acquaintance with document circulation in medical and preventive institution
LA2	Preparing for Step 2
LA3	Interpretation of laboratory (clinical analysis of blood, urine, biochemical analysis of blood, immunological tests, etc.) and instrumental (ECG, echocardiography, EFGDS, ultrasound, CT, radiography, spirometry, etc.) examination methods
LA4	Practical work at the base of practice to implement the program of doctor's practice
LA5	Writing a report of practice, which involves the implementation of the doctor's practice program
LA6	Performing of practical skills in the simulation center

## 8. Teaching methods

Provides learning through:

TM1	Experience-based learning
TM2	Case-based learning (CBL)
TM3	Execution of the direct supervisor's tasks across the course of industrial practice
TM4	Obtaining of skills in reporting documentation completion

The student works as a doctor's assistant in inpatient and outpatient departments / offices of therapeutic, surgical, pediatric, obstetrics and gynecology profile of regional, city, district hospitals 5 working days a week. Independent learning is facilitated by: the implementation of individual

tasks during the practice, the formation of teamwork skills in compliance with the norms of medical ethics and deontology. During the preparation for the report of doctor practice results, students will develop skills of independent learning, critical analysis, as well as improve research skills

## 9. Methods and criteria for assessment

### 9.1. Assessment criteria

National scale	Rating scale
5 (Excellent)	$170 \leq RD \leq 200$
4 (Good)	$140 \leq RD < 169$
3 (Satisfactory)	$120 \leq RD < 139$
2 (Fail)	$0 \leq RD < 119$

### 9.2 Formative assessment

FA1	Discussion and mutual evaluation of completed practice tasks
FA2	Questions and instructions of the doctor - the direct supervisor of the practice
FA3	Writing a practice report and preparing to defend the report

### 9.3 Summative assessment

SA1	Estimation of the practice report
SA2	Demonstration of practical skills

Form of assessment:

<b>8 semester</b>		<b>200 scores</b>
SA1. Estimation of the practice report		<b>80</b>
	Protection of the report from the cycle "Therapy"	40
	Protection of the report from the cycle "Pediatrics"	40
SA2. Demonstration of practical skills		<b>120</b>
	Demonstration of practical skills from the cycle "Therapy"	60
	Demonstration of practical skills from the cycle "Pediatrics"	60
<b>10 semester</b>		<b>200 scores</b>
SA1. Estimation of the practice report		<b>80</b>
	Protection of the report from the cycle "Surgery"	40
	Protection of the report from the series "Obstetrics and Gynecology"	40
SA2. Demonstration of practical skills		<b>120</b>
	Demonstration of practical skills from the cycle "Surgery"	60
	Demonstration of practical skills from the cycle "Obstetrics and Gynecology"	60

The student's mastering in practical skills and abilities is estimated by the head of practice from SSU using the information specified in the practice Diary and in the Digital report from each cycle (content module) of practice: therapy, pediatrics, surgery, obstetrics and gynecology. The practice Diary and Digital report must be signed by the immediate supervisor, the general supervisor from the base and certified by the stamp of the hospital base. Evaluation criteria: - observing of inpatients; - observing of outpatients; - registration of medical outpatient and inpatient cards; - participation in rounds, consultations; - interpretation of laboratory data; - participation in conducting and interpreting the results of instrumental researches; - participation in transfusion of blood and its components; - participation in medical manipulations and operations. The fulfillment of each of the eight criteria is estimated with: 5 points – “done”, 0 – “not done”. The minimum number of points having been collected by the individual work during the practice cycle is 25. Demonstration of practical skills by a student is estimated with the following criteria: - determination of indications, contraindications for manipulation / operation, safety measures for patients and medical staff; - organization of the workplace to perform manipulation / operation; - technique of manipulation / operation; - possible complications when performing manipulation / operation, their prevention. The evaluation is performed by the head of the practice from SSU using a four-grade scale ("5", "4", "3", "2"). Scores set according to the traditional scale is converted into points according to the scale of conversion of traditional scores (average score to the nearest hundredth) into rating points. The minimal number of points that a student must complete by practical skills demonstrating for the practice cycle is 36 (average score 3.00). The maximum number of points for the skills demonstration from the practice cycle is 60 (average score 5.00). The total score of the discipline must not exceed 200 points.

## 10. Learning resources

### 10.1 Material and technical support

MTS1	Library funds, archive of radiographs, spirograms, electrocardiograms, computer tomograms, results of laboratory methods of inspection
MTS2	Computers, computer systems and networks
MTS3	Simulation center
MTS4	Medical buildings / premises and equipment of hospitals which are recognized as bases of practice
MTS5	Software to support distance learning

MTS 1 is provided jointly by medical and preventive institutions - bases of practice and profile departments of SSU. The simulation center (MTS3) is located on the base of SSU MI. MTS2 and MTS5 are provided by SSU and are used in case of quarantine restrictions.

### 10.2 Information and methodical support

Essential Reading	
1	Clinical Methods in Medical Family Therapy [Электронный ресурс] / edited by Tai Mendenhall, Angela Lamson, Jennifer Hodgson, Macaran Baird. — 1st ed. 2018. — Cham : Springer International Publishing, 2018. — (Focused Issues in Family Therapy)



2	Methodical instructions for practical work on the discipline “Obstetrics and Gynecology” (Modul II “Diseases of the femal reproductive system. Family planning”) [Електронний ресурс] : for foreign stud. of the spec. 222 “Medicine” full-time education / S. A. Smiyan, I. M. Nikitina, N. P. Sukhostavets, T. V. Kopytsya, N. V. Kalashnyk. — Sumy : Sumy State University, 2022. — 78 p.
3	Rehabilitative Surgery [Електронний ресурс] : A Comprehensive Text for an Emerging Field / edited by Andrew I. Elkwood, Matthew Kaufman, Lisa F. Schneider. — 1st ed. 2017. — Cham : Springer International Publishing, 2017. — XIX, 398 p. 86 illus., 63 illus. in color
4	The Standards of Practical Skills in Neonatology [Текст] : study guide / Ye. Ye. Shunko, A. M. Loboda, I. V. Tarasova etc. ; eds: Ye.Ye. Shunko, A.M. Loboda. — Sumy : Sumy State University, 2018. — 315 p.
5	Obstetrics and gynecology: in two volumes [Текст] : textbook. Vol.2 : Gynecology / V. I. Gryshchenko, M. O. Shcherbina, B. M. Ventskivskyi etc. ; edit. by: V.I. Gryshchenko, M.O. Shcherbina. — 2-nd edition. — K. : AUS Medicine Publishing, 2018. — 352 p.
<b>Supplemental Reading</b>	
1	Methodological instructions on the topic "Care for the Surgical Patients. Nutrition of Patients during Postoperative Period" [Текст] : for students of medical higher schools / A. V. Kravets, G. I. Pyatikop, V. P. Shevchenko, I. Ya. Gresko. — Sumy : Sumy State University, 2018. — 26 p.
2	Introduction to Surgery for Students [Електронний ресурс] / edited by Rebecca A. Fisher, Kamran Ahmed, Prokar Dasgupta. — 1st ed. 2017. — Cham : Springer International Publishing, 2017. — XVII, 416 p. 263 illus., 230 illus. in color.
3	Family Medicine [Текст] : textbook: in 3 b. B.2 : Symptoms and syndromes in clinical course of internal diseases / L. S. Babinets, O. M. Barna, S. V. Biletskyi etc. ; ed.: O.M. Hyrina, L.M. Pasiyeshvili. — K. : Medicine Publishing, 2018. — 376 p.
4	Obstetrics and gynecology: in two volumes [Текст] : textbook. Vol.2 : Gynecology / V. I. Gryshchenko, M. O. Shcherbina, B. M. Ventskivskyi etc. ; edit. by: V.I. Gryshchenko, M.O. Shcherbina. — 2-nd edition. — K. : AUS Medicine Publishing, 2018. — 352 p.

## 11. Bases

Industrial medical practice Doctor`s Practical Training is carried out on the clinical bases of the departments of MI SSU: obstetrics, gynecology and family planning; internal medicine with a center of respiratory medicine; emergency medical care and disaster medicine; family medicine with a course in dermatovenereology; pediatrics; surgery, traumatology, orthopedics and tuberculosis. Students can independently choose a place of practice at the base of one or more, depending on the profile, treatment and prevention facilities outside the clinical bases of MI, provided that it is possible to implement the practice program. The bases of practice can also be structural subdivisions of SSU, which allow applicants to acquire professional skills and professional competencies: the University Clinic and the Simulation Center

## 12. Policies

### 12.1 Academic Integrity Policy

Participants must complete all tasks identified in the internship program independently. Reporting for passing the internship should not contain plagiarism, facts of fabrication, falsification, cheating. During the internship period, manifestations of other types of academic dishonesty determined by the Academic Integrity policy are also unacceptable. If a supervisor reveals violations of academic integrity of students during the practice, he has the right to conduct one of the following actions:

- to reduce by up to 40% points received during the fulfillment of internship assignments;
- to give recommendations for a retake of submitted internship assignments with a decrease by up to 25% of received points;
- do not count the results of the internship without giving the right to revise them;
- appoint a retake with a decrease by up to 15% of received points;
- refuse to retake of internship

## 12.2 Attendance policy

Attendance to the internship base is mandatory. Supervisors from an enterprise (organization, institution) determine a student's schedule of stay at the internship base. A visit to the practice base is mandatory. Prior to the practice, the student must undergo a medical examination in advance and have sanitary books, be vaccinated in accordance with the calendar and anti-epidemic recommendations. Students, who have completed all types of planned educational independent work, reworked all the missed days of practice by the deadline are allowed to the final control.

## 12.3 Deadline and recompilation policy

Reworking of the missed days of practice during its carrying out is performed, in coordination with the direct supervisor, by duty in non-working hours at clinical bases of practice. If it is impossible to be on duty and after the completion of the practice, the reworks are performed at the basis of the simulation center by the profile department supervisor according to the approved schedule. In case the student received an unsatisfactory grade for the final control, he must retake it before the beginning of the next semester. The second re-passing is conducted by commission, the maximum score for the second re-passing of the final control - "3", which corresponds to 120 points.

## 12.4 Assessment appeals policy

The results of the internship assessment are subject to appeal. For this, a student must submit a request to a director/dean on the day of certification or after announcing the results, but no later than the next working day.

An appeal commission is established by the order of a director/dean. The appeal commission's decision may change the grade in the event of violations revealed during the attestation.

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

**For 222 Medicine:**

Competences/ learning outcomes	Learning outcomes	Learning activities	Teaching methods	Material and technical support	Methods and criteria for assessment
PO1, PO2, PO5	LO1	LA2, LA4, LA5	TM1, TM2, TM3	MTS2, MTS4, MTS5	SA1, SA2
PO1, PO2, PO3, PO5	LO2	LA2, LA4, LA5	TM1, TM2, TM3	MTS1, MTS2, MTS4, MTS5	SA1, SA2
PO2, PO3, PO21	LO3	LA2, LA3, LA4, LA5	TM1, TM2, TM3, TM4	MTS1, MTS2, MTS5	SA1, SA2
PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO14, PO16, PO17	LO4	LA1, LA2, LA4, LA5, LA6	TM1, TM2, TM3	MTS2, MTS3, MTS4, MTS5	SA1, SA2
PO11, PO12, PO13	LO5	LA2, LA4, LA6	TM1, TM2, TM3	MTS2, MTS3, MTS4, MTS5	SA1, SA2