**TIMETABLE OF LECTURES**

OF MICROBIOLOGY FOR

MEDICAL FACULTY

**(autumn semester2012-2013)(10 hours)**

|  |  |  |
| --- | --- | --- |
| N | TOPIC | DATE |
| 1. | Pathogenic pyogenic cocci (staphylococci, streptococci, meningococci, gonococci). | 13.09 |
| 2. | Pathogenic enterobacteria (escherichia, salmonella). | 27.09 |
| 3. | Shigella. Pathogenic vibrios. | 11.10 |
| 4.  | Diphteria. Tuberculosis. | 25.10 |
| 5. | Basic of clinical microbiology. | 8.11 |

**TIMETABLE OF THE PRACTICAL
CLASSES OF MICROBIOLOGY FOR
MEDICAL FACULTY**

(autumn semester 2012-2013)

(30 hours)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **N** | T O P I C | Group 3,8DATE  | Group 4DATE | Group 5DATE | Group 6DATE | Group 7DATE | Group 9DATE |
| **1** | **2** | **3** | **4** | **5** | **6** | **7** |  |
| 1. | Microbiological diagnosis of staphylococcal and streptococcal infections.  | 12.09 | 14.09 | 7.09 | 13.09 | 6.09 | 5.09 |
| 2. | Microbiological diagnosis of diseases caused by Neisseria.  | 26.09 | 28.09 | 21.09 | 27.09 | 20.09 | 19.09 |
| 3. | Enterobacteria. General characteristic. Microbiological diagnosis of escherichiosis. | 10.10 | 12.10 | 5.10 | 11.10 | 4.10 | 3.10 |
| 4. | Microbiological diagnosis of typhoid and paratyphoid fever. Microbiological diagnosis of gastroenteritidis, caused by Salmonella.  | 24.10 | 26.10 | 19.10 | 25.10 | 18.10 | 17.10 |
| 5. | Microbiological diagnosis of shigellosis. | 7.11 | 9.11 | 2.11 | 8.11 | 1.11 | 31.10 |
| 6. | Microbiological diagnosis of cholera. | 7.11 | 9.11 | 2.11 | 8.11 | 1.11 | 31.10 |
| 7. | Microbiological diagnosis of diphtheria. | 21.11 | 23.11 | 16.11 | 22.11 | 15.11 | 14.11 |
| 8. | Microbiological diagnosis of tuberculosis. | 5.12 | 7.12 | 30.11 | 6.12 | 29.11 | 28.11 |
| 9. | Clinical microbiology. | 19.12 | 21.12 | 14.12 | 20.12 | 13.12 | 12.12 |
| 10. | **Credits module.** | 16.01 | 18.01 | 28.12 | 17.01 | 27.12 | 26.12 |

THEMatic PLAN OF LECTURES

on Pathological Physiology for students

of medical faculty

5th semester

2012-2013 study years

|  |  |  |  |
| --- | --- | --- | --- |
| **№** | **Theme** | **Hours** | **Lecturer** |
| 1 | Pathophysiology as a subject; its tasks. Methods of pathophysiological studies. Study about disease, etiology and pathogenesis.  | 2 | Kolichetska M,A |
| 2 | The role of heredity, constitution, and age changes in pathology. Inherited and congenital diseases. | 2 |  Kolichetska M,A |
| 3 | Pathology of reactivity. Disorders of the immune system. Insufficiency of immune system. | 2 | Kolichetska M,A |
| 4 | Allergy: its etiology, pathogenesis, and clinical manifestations. Autoimmune diseases. | 2 | Kolichetska M,A |
| 5 | Pathophysiology of the cell. General mechanisms of cell injury and its death. Necrosis and apoptosis. | 2 | Kolichetska M,A |
| 6 | Inflammation: its types and manifestations. Etiology and pathogenesis of acute and chronic inflammation. | 2 | Kolichetska M,A |
| 7 | Tumors. Etiology and pathogenesis of the tumor growth. | 2 | Kolichetska M,A |
| 8 | Carbohydrates metabolism disorders. Diabetes mellitus: definition, classification, clinical manifestation and complication. Etiology, pathogenesis and the major forms of diabetes mellitus.  | 2 | Kolichetska M,A |
| 9 | Pathophysiology of water and electrolyte metabolism disorders. Edema: its types, etiology, and pathogenesis. | 2 | Kolichetska M,A |
| 10 | Acid-base disorders. Acidosis, alkalosis: classification, etiology, and pathogenesis. Mechanisms of compensation and correction of acid-base disorders.  | 2 | Kolichetska M,A |
| 10 | **Total**  | 20 |  |

THEMatic PLAN OF practical classes

on Pathological Physiology for students

of medical faculty

5th semester

2012 -2013 study years

|  |  |  |
| --- | --- | --- |
| № | **Themes of lessons** | **Hours** |
| 1. | Pathophysiology as a subject of study; task and methods of pathophysiology.  | 2,5 |
| 2. | Pathologic influence of the changed atmospheric pressure on the organism.  | 2,5 |
| 3. | Pathogenic influence of the ionizing radiation on the organism. | 2,5 |
| 4. | The role of heredity and constitution in pathology.  | 2,5 |
| 5. | Pathology of reactivity. Disorders of immunological reactivity. | 2,5 |
| 6. | Allergy. | 2,5 |
| 7. | Testing students' knowledge and practical skills by the theme “General nosology. Pathogenic influence of the changed environmental factors on the organism. The role of intrinsic factors in pathology.” | 2,5 |
| 8. | Disorders of the peripheral circulation and microcirculation.  | 2,5 |
| 9. | Inflammation. | 2,5 |
| 10. | Fever. | 2,5 |
| 11. | Tumors.  | 2,5 |
| 12. | Starvation. | 2,5 |
| 13. | Testing students' knowledge and practical skills by the theme “Typical pathological process”. | 2,5 |
| 14. | Carbohydrate metabolism disorders. Diabetes mellitus. | 2,5 |
| 15. | Water and electrolytic metabolism disorders. Microelements exchange disorders. | 2,5 |
| 16. | Acid-base balance disorders. | 2,5 |
| 17. | Testing students' knowledge and practical skills by the theme “Typical metabolic disorders.” | 2,5 |
| 18. | Final module test. | 2,5 |
|  | **Total** | 45 |

THEMatic PLAN OF students’ independent work

on Pathological Physiology for students

of medical faculty

5th semester

2012 -2013 study years

|  |  |  |
| --- | --- | --- |
| № | **Themes** | **Hours** |
|  | Preparing to practical lessons (theoretical preparation, acquiring practical skills) | 20 |
|  | Self-preparation of the topics, which are not included to the time-table of practical lessons: | 14 |
|  | 1. Pathogenic influence of infrared and ultraviolet rays. Injuries caused by radio-waves of the very high frequency
 | 2 |
|  | 1. Pathogenic action of electric current. Influence of factors encountered during space flying on the organism
 | 2 |
|  | 1. Chemical pathogenic factors. Intoxications. Natural mechanism of protection against action of toxins and poisons
 | 2 |
|  | 1. Pathophysiological aspects of alcoholism, drug addiction, and toxicomania
 | 2 |
|  | 1. General features of infectious process development. The role of pathogen’s nature and the organism’s reactivity in the development of infectious diseases
 | 2 |
|  | 1. Senility: general features, theories of the process of senility. Theoretical bases of the life span enlargement
 | 2 |
|  | 1. Impairment of the cell energetic supply. Cell breathing impairment. The role of energetic metabolism impairment in the life activity of the cell
 | 2 |
|  | Individual work | 3 |
|  | Preparation to the final module control | 3 |
|  **Total** | 40 |

**The topic plan**

**of lectures on common hygiene and ecology for foreign students the III year of general medicine faculty on the common hygiene department on (autumn) semester**

|  |  |  |
| --- | --- | --- |
| № | Topic | Hours |
| 1 | Hygiene, its purposes, tasks, methods of studying. Ecology- its purposes, tasks, methods of studying. Biosphere - its structure and evolution. Hygienic value of atmosphere, hydrosphere, lithosphere. Sanitary legislation.  | 2 |
| 2 | Sun radiation is its hygienic value. Use of constituents of sun radiation. Hygiene of weather and climate. Acclimatization, heliometeotrophic reactions and their prophylaxis. | 2 |
| 3 | Hygiene of the inhabited places. Problems of urbanization. Hygiene of habitation, microclimate, heating, ventilation, natural and artificial illumination. Water as the factor of health, its hygienic and epidemiology value. Organization of drinkable water-supply. Ecological problems and sanitary guard of waters objects. Soil and health. Bases of the sanitary cleaning of the inhabited places. | 2 |
| 4 | Nutrition, as factor of health, theories of nutrition, function of food matters. Scientific bases of rational nutrition. The diseases are related to violation of bases of rational nutrition and use of poor qualities products, their prophylaxis. | 2 |
| 5 | Hygiene and physiology of labour. Classification of harmful factors of labour process and production environment. Professional diseases and poisonings, commons measures of their prophylaxis. Sanitary legislation in industry of labour protection. Features of labour hygiene of medical workers of different profession. | 2 |
| 6 | Hygiene of children and teenagers. Basic conformities to the law of growth and development of child's organism. Methods of estimation of the health state and physical development of children and teenagers. Hygienic bases of planning and arranging of preschool and schools establishments. Hygienic estimation of day of mode educational-educating process of children of different ages groups. Hygiene of labour and physical education and studies of children and teenagers. | 2 |
|  | **Total** | **12** |

**The topic plan**

**of self-education on common hygiene and for foreign students he III year of general medicine faculty on the common hygiene department on (autumn) semester**

|  |  |  |
| --- | --- | --- |
| №  | topic | Hours |
| **1.** | Preparation to practical classes, theoretical and working of practical skills. | 17 |
| **2** |
| 1 | History of origin, basic stages of development and modern state of hygiene. | 1 |
| 2 | Hygienic value of constituents of biosphere (atmosphere, hydrosphere, litosphere). Biochemical cycles. | 1 |
| 3 | Endemic goitre as a hygienic problem, etiology prophylaxis (sea products, salt). Endemic fluorosis and caries as a hygienic problem their prophylaxis (fluoration, defluoration of water). | 1 |
| 4 | Concept about a hygienic norm and principles of the hygienic setting of norms.. | 1 |
| 5 | Methods of canning food products, their hygienical description. Food additions their hygienical description. | 1 |
| 6 | Hygienic supervision after the feed of different ages groups, professions, patients, in permanent establishments, health establishments. | 2 |
| 7 | Method of investigation of professional diseases casesand poisonings. Previous and periodic medical control as the measures of their prophylaxis. | 1 |
| 8 | Sanitary parts and health points of industrial enterprises, hygienical aspects of their work. | 1 |
| 9 | Research methods and estimation of influencing of factors of environment on a health children and teenagers. Determination of group of health and physical development. | 1  |
| 10 | Method of hygienic control after organization of physical education and labour studies of children and teenagers. Medical-professional consultation and medical professional selection of teenagers in the conditions of school and policlinic. | 1 |
| **3.** | Individually-research independent work | 4 |
| ***4.*** Preparation to the final control . module 1.***--------------------------------------------------------------------------------------------------------******total:*** | ***2******--------******30*** |

**The topic plan**

**of practical classes on common hygiene and ecology for foreign students the III year of general medicine faculty on the common hygiene department on (autumn) semester**

|  |  |  |
| --- | --- | --- |
| № | Name of topic | hh |
| 1 | Methods of hygienic researches. Structure of sanitary organization of Ukraine. Content and functions of general doctor according sanitary-epidemiological service. Sanitary legislation. | 3 |
| 2 | Hygienic assessment of ultraviolet and infrared radiation. Methods of determination of intensity and prophylactic dose of ultraviolet (UV) radiation and its use with the purpose of prophylaxis of diseases and environment air sanation. | 3 |
| 3 | Hygienic assessments of temperature, humidity, speed of wind of premises and their influence of heat exchange. Barometric pressure. | 3 |
| 4 | Hygienic assessment of natural and artificial illumination.  | 3 |
| 5 | Hygienic assessment of air motion and efficiency of natural and artificial ventilation of the rooms. Definition of carbon dioxide as indirect parameter of anthropogenic pollution of the ambient air. Concept about an air cube, necessary and actual volume and multipleness of ventilation, their scientific base. | 3 |
| 6 | Hygienic estimation of the complex parameters influencing of microclimate on the heat exchange of man (catathermometry, equivalently-effective, resulting temperatures). Method of hygienic estimation of climate terms on a health man. Acclimatization. Prophylaxis of meteotropic reactions. | 3 |
| 7 | Method of sanitary inspection of water-supply sources and water sampling for bacteriological and sanitary-chemical research. Hygienic assessment quality of potable water. Assessment of the analysis of potable water. | 3 |
| 8 | Methods of improvement quality of potable water at the centralized and decentralized water-supply. Hygienic control of disinfection potable water. | 3 |
| 9 | Hygienic condition Method of hygienic assessment of the soil from results of laboratory analysis and tests. Sanitary cleaning of the inhabited places. General scheme and buildings for domestic flows waters treatment. | 3 |
| 10 | Methods of definition of daily energy expenditure and man’s requirements in nutrients. | 3 |
| 11 | Definition of nutrition status of man and medical control after providing of organism by vitamins. | 3 |
| 12 | Estimation of feed adequacy after the menu table. |  3 |
| 13 | Methods of definition of food products and prepared foods as a result of their laboratory analysis. Prevention of food poisonings. Method of investigation of cases of food poisonings. | 3 |
| 14 | Method of hygienic estimation of weight and tension of labour with the purpose of prophylaxis of overstrain and increase of capacity. Hygienic requirements to the mode of labour. Sanitary legislation about a labour protection | 3 |
| 15 | Method of hygienic estimation of dangerous and harmful factors of production environment and reaction of organism on their influencing. Method of hygienic estimation of noise and vibration. | 3 |
| 16 | Method of estimation of the state of health and physical development of children and teenagers. Methods of determination of age-old sico-physiological features of children and teenagers. Hygienic estimation of the day mode and educational-educating process of different group of ages groups children. | 3 |
| 17 | Method of hygienic estimation of equipment and maintenance of educational-educating establishments for children and teenagers. | 3 |
| 18 | Final module control | 3 |
| 19 | Total | 56 |

**The plan of practical lessons**

**“Propedeutics to internal medicine”**

**for students of third year of medical faculty N1**

**on autumn semester of 2012-2013 academic year**

|  |  |  |  |
| --- | --- | --- | --- |
| **N** | **Topic** | **Hours** | **Date** |

|  |  |  |  |
| --- | --- | --- | --- |
| 1. | The history of the disease. Patients interviewing. Diagnostics value of symptoms and syndromes. | 2,5 | 3.09-7.09 |
| 2. | General examination of the patient. A thorough physical examination. Examination of the head, neck, thoraces, extremities. | 2,5 | 10.09-14.09 |
| 3. | The main complaints of the patients with disease of the respiratory system. Static and dynamic inspection of the chest. Palpation of the chest. | 2,5 | 17.09-21.09 |
| 4. | Percussion of the lungs. The technique of comparative percussion. The technique of topographic percussion. | 2,5 | 24.09-28.09 |
| 5. | Auscultation of the lungs. The main respiratory sounds (vesicular and bronchial breath sounds). The adventitious sounds (rales, crepitation, pleural friction sounds).  | 2,5 | 1.10-5.10 |
| 6. | Instrumental and laboratory methods of examination the patients with respiratory system disease. Final session on methods for evaluation of patients with respiratory system disease. | 2,5 | 8.10-12.10 |
| 7. | Inquiring and general inspection of the patients with cardiovascular system disorders. Inspection and palpation of the heart region and peripheral vessels. Percussion of the heart: determination of the borders of the relative and absolute cardiac dullness. Configuration of the heart. Diagnostic value. | 2,5 | 15.10-19.10 |
| 8. | Auscultation of the heart. Technique and points of auscultation. Diagnostic value. | 2,5 | 22.10-26.10 |
| 9. | Auscultation of the heart. The mechanisms of cardiac murmurs. Diagnostic value. Phonocardiography and echocardiography. | 2,5 | 29.10-2.11 |
| 10. | Assessment of the blood pressure and arterial pulse. Clinical electrocardiography. Interpretation of the ECG. Examination of waves, intervals. Determination of electrical axis of the heart. ECG-signs of atrial and ventricular hypertrophy. | 2,5 | 5.11-9.11 |
| 11. | ECG in abnormalities of the impuls formation. | 2,5 | 12.11-16.11 |
| 12. | ECG in Abnormalities of conduction. Fundamentals of electric pulse therapy. Combined ECG rhythm disturbances. The final lesson on methods of examination of cardiac patients. | 2,5 | 19.11-23.11 |
| 13. | Inquiry and inspection of the patients with gastrointestinal disorders. Percussion of the abdomen. Methods of ascites detection. Diagnostic purpose. Superficial and deep sliding systematic palpation of the abdomen. | 2,5 | 26.11-30.11 |
| 14. | Laboratory and instrumental methods of examination of digestion system. Laboratory studies of gastric secretions, feces. X-ray examination of the digestive tract. Fibrogastroscopy. | 2,5 | 3.12-7.12 |
| 15. | Inquiring and clinical examination of the patients with pathology of liver and gallbladder. Percussion of the liver according Kurlov. Palpation of gallbladder.Diagnostic value of laboratory methods of assessing of liver’s function (pigment, carbohydrate, protein metabolism, enzymes). Diagnostic value of duodenal probing. | 2,5 | 10.12-14.12 |
| 16. | Inquiring and clinical examination of the patients with pathology of pancreas. Palpation and percussion of pancreas. Diagnostic value of laboratory methods of assessing. The final lesson on methods of examination of patients with gastrointestinal disorders. | 2,5 | 17.12-21.12 |
| 17. | Inquiring and clinical examination of the patients with pathology of urinary system. Palpation of kidneys. | 2,5 | 24.12-28.12 |
| 18. | Laboratory and instrumental methods of examination of urinary system. Ultrasound examination of urinary system. The final lesson on methods of examination of patients with urinary disorders. | 2,5 | 31.12-4.01 |
| 19. | . Inquiring and clinical examination in blood system disorders. Palpation and percussion of spleen. | 2,5 | 7.01-11.01 |
| 20. | Sternal puncture. Diagnostic value of clinical blood tests and coagulation system|. The final lesson on methods of examination of patients with urinary disorders. | 2,5 | 14.01-18.01 |
| 21. | Clinical, laboratory and instrumental methods of examination of endocrine pathology. Diagnostic purpose. | 2,5 | 21.01-25.01 |
| 22. | Clinical, laboratory and instrumental methods of examination of patients with musculoskeletal and connective tissues disorders. Diagnostic value. | 2,5 | 28.01-1.02 |
| 23. | **The final module control.**Control of practical skills.Test control of theoretical training.Analysis of instrumental and laboratory data. | 110,5 | 4.02-8.02 |
| TOTAL| | 57,5 |  |

**The plan of the self work**

**“Propedeutics to internal medicine”**

**for students of third year of medical faculty N1**

**on autumn semester of 2012-2013 academic year**

|  |  |  |
| --- | --- | --- |
| **№** | **TOPIC** | **Hours** |
| 1. | Preparation for practical classes - theoretical and practical methods of physical examination of the patient: |  |
|  | - questioning of patients with pathology of internal organs | 2 |
|  | - general inspection of the patient, examination of body parts (head, neck, limbs, thorax, abdomen) | 2 |
|  | - palpation of the chest | 1 |
|  | - comparative and topographic percussion of the lungs | 2 |
|  | - auscultation of the lungs | 2 |
|  | - palpation of the heart region | 1 |
|  | - determining the properties of the pulse | 1 |
|  | - percussion of the absolute and the relative cardiac dullness | 1 |
|  | - auscultation of the heart | 2 |
|  | - superficial and deep methodical palpation of the abdomen, intestine, stomach, liver, spleen, kidneys | 2 |
|  | - determining the size of the liver and spleen by percussion | 1 |
| 2. | The skills of instrumental examinations: |  |
|  | - spirography| | 1 |
|  | - Recordering of ECG | 2 |
| 3. | Mastering the ability to analyze: |  |
|  | - results of respiratory function | 1 |
|  | - electrocardiographic and phonocardiographic results | 5 |
|  | - results of gastric content probe and duodenal probing | 1 |
| 4. | Self study topics not included in the plan of classes:ECG in combined cardiac arrhythmia | 2 |
| 5. | Curation of patients with writing the anamnestic part of the history of the disease | 2 |
| 6. | Individual work:- Research of respiratory function in patients, data processing and reporting- ECG registration, data processing and reporting- Examination of a patient and Проведення обстеження показового хворого та the review of the scientific literature on case study | 212 |
| 7. | Preparing for the final control module N1. | 4 |
| **TOTAL** | **40** |

**The plan of the lectures**

**“Propedeutics to internal medicine”**

**for students of third year of medical faculty N1**

**on autumn semester of 2012-2013 academic year**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **№** | **Topic** | **Hours** | **Data** | **Groups** | **Lector** |
| 1. | Propedeutics to internal medicine as an introduction to the internal medicine. Subjective and objective examination of the patient. The concept of "health", "illness", "diagnosis", types of the diagnosis. Medical history. | 2 | 5.09.12 | 3-9 | Associate professor Nevzgoda A.A. |
| 2. | Introduction of the student to the hospital - the basis of medical ethics and medical deontology. The concept of bioethics. | 2 | 12.09.12 | 3-9 | Associate professor Nevzgoda A.A. |
| 3. | Enquiring of the patient as a method of examination. The term "simulation", "aggravation*.*" Diagnostic value of the method. | 2 | 19.09.12 | 3-9 | Associate professor Nevzgoda A.A. |
| 4. | General examination of patients as a method of examination. Diagnostic value. Examination of different body parts: head, neck, trunk, and extremities. | 2 | 26.09.12 | 3-9 | Associate professor Nevzgoda A.A. |
| 5. | Examination of the patients with pathology of the respiratory tract (interviewing; inspection, palpation and percussion of the chest). Diagnostic value. | 2 | 3.10.12 | 3-9 | Associate professor Nevzgoda A.A. |
| 6. | Examination in the pathology of the respiratory system (lung auscultation, instrumental and laboratory data). Diagnostic value. | 2 | 10.10.12 | 3-9 | Associate professor Nevzgoda A.A. |
| 7. | Examination of the patients with pathology of the cardiovascular system (intervuvering, general examination, inspection and palpation of the heart region, relative and absolute dullness of heart). Diagnostic value. | 2 | 17.10.12 | 3-9 | Associate professor Nevzgoda A.A. |
| 8. | Auscultation of the heart, heart sounds and murmurs. | 2 | 24.10.12 | 3-9 | Associate professor Nevzgoda A.A. |
| 9. | Examination in the pathology of the gastrointestinal tract (questioning, inspection and palpation of the abdomen). | 2 | 31.10.12 | 3-9 | Associate professor Nevzgoda A.A. |
| 10. | Examination of the patients with pathology of liver, pancreas, biliary tract. | 2 | 7.11.12 | 3-9 | Associate professor Nevzgoda A.A. |
| 11. | Examination in the pathology of urinary system. | 2 | 14.11.12 | 3-9 | Associate professor Nevzgoda A.A. |
| 12. | Examination in the pathology of endocrine system. | 2 | 21.11.12 | 3-9 | Associate professor Nevzgoda A.A. |
| 13. | Examination in blood system patologies. | 2 | 28.11.12 | 3-9 | Associate professor Nevzgoda A.A. |
| 14. | Methods of examination of systemic lesions in the clinic of internal medicine. | 2 | 5.12.12 | 3-9 | Associate professor Nevzgoda A.A. |
| 15. | Laboratory and instrumental methods of examination in the internal medicine. | 2 | 12.12.12 | 3-9 | Associate professor Nevzgoda A.A. |
| 16.  | Functional disorders of the cardiovascular system. | 2 | 19.12.12 | 3-9 | Associate professor Nevzgoda A.A. |
| 17. | Syndromes of the pathology of the myocardium (myocarditis, myocardiopathy), endocardium (endocarditis, valvular defects) and the pericardium (dry and exudative pericarditis). | 2 | 26.12.12 | 3-9 | Associate professor Nevzgoda A.A. |
| 18. | Syndromes of hypertension, ischemic heart disease (angina, myocardial infarction), heart failure. | 2 | 2.01.13 | 3-9 | Associate professor Nevzgoda A.A. |
| 19. | Syndromes of compression of the lung tissue, bronchial patency disorders, cavities in the lungs, fluid in the pleural cavity, respiratory failure. | 2 | 9.01.13 | 3-9 | Associate professor Nevzgoda A.A. |
| 20. | Syndromes of pneumonia, bronchitis, asthma, pleurisy. | 2 | 16.01.13 | 3-9 | Associate professor Nevzgoda A.A. |
| TOTAL | 40 |  |  |  |

PROPAEDEUTIC PEDIATRICS

(CURRICULUM)

(Medical Faculty, 3rd Year of Study / 5th – 6th Semesters 2012-2013)

# Curriculum was proved by meeting

# of the Department of Propaedeutic Pediatrics

on the 30th of August, 2012 (protocol No 1)

Lectures: 40 hours

Practice: 100 hours

Self-works: 55 hours

Total: 195 hours

### Lecture Curriculum

|  |  |  |
| --- | --- | --- |
| No | Topic | Hours |
| **Module 1. Development of a Child** |
| 1. | Pediatrics as a science about a healthy and a sick child.The scope and history of Pediatrics. Main stages of development of Pediatrics in Ukraine. Patterns of health care in Ukraine. Periods of childhood: characteristics and peculiarities. Newborn infants: physical development and physiologic characteristics. Temporary states of neonates. | 2 |
| 2. | Physical and psychomotor development of the children of different age groups. Principles and methods of physical development assessment in pediatric practice. Developmental aspects of biological acceleration. Semiotics of physical and psychomotor development disorders. | 2 |
| **Module 2. Anatomical and Physiological Peculiarities and Methods of Assessment of Organ Systems of Children. Semiotics of Pediatric Diseases** |
| 3. | Anatomical and physiological peculiarities of nervous system of children. Semiotics of neurologic diseases in pediatric practice. | 2 |
| 4. | Anatomical and physiological peculiarities of skin and appendageal structures of children. Peculiarities of subcutaneous fat of children. Semiotics of skin and adipose tissue diseases in pediatric practice. | 2 |
| 5. | Anatomical and physiological peculiarities of musculoskeletal system of children. Semiotics of musculoskeletal system diseases in pediatric practice. | 2 |
| 6. | Anatomical and physiological peculiarities of respiratory system of children. Prenatal development of respiratory system. Congenital abnormalities of respiratory system. Semiotics of respiratory system diseases in pediatric practice. | 2 |
| 7. | Semiotics of respiratory system diseases in pediatric practice. Clinical manifestation of respiratory failure. | 2 |
| 8. | Prenatal development of cardiovascular system. Congenital heart conditions. Peculiarities of fetal circulation. Anatomical and physiological peculiarities of cardiovascular system of children. | 2 |
| 9. | Clinical manifestation of cardiovascular system diseases in children: congenital and acquired heart conditions of children. Peculiarities of ECG of the children of different age groups. | 2 |
| 10. | Anatomical and physiological peculiarities of digestive system of children. Semiotics of gastrointestinal diseases (gastritis, ulcer of the stomach and duodenum). | 2 |
| 11. | Semiotics of hepatic diseases, cholecystitis, bile ducts disorders. Acute abdominal pain. General consideration in the care of pediatric patients with digestive system problems. | 2 |
| 12. | Anatomical and physiological peculiarities of urinary system of children. Problems of embryonic life – main cause of congenital malformations of urinary system. Semiotics of main renal and bladder diseases. | 2 |
| 13. | Interpretation of pathological findings in routine urinalysis. Acute and chronic renal failure. General consideration in the care of pediatric patients with urinary system problems. |  |
| 14. | Anatomical and physiological peculiarities of hematopoietic system of children. Clinical manifestation of diseases of the blood in children (anemia, hemolytic syndrome, leukemia, hemorrhagic diseases). General consideration in the care of pediatric patients with hematologic diseases. | 2 |
| 15. | Peculiarities of immune system of children. Conditions of impaired host defense. Defects of specific immunity. Acquired immunodeficiency syndrome (AIDS): clinical and laboratory manifestation. |  |
| 16. | Anatomical and physiological peculiarities of endocrine system of children. Semiotics of hypo- and hyperfunction of certain endocrine glands. General consideration in the care of pediatric patients with endocrinologic diseases. | 2 |
| 17. | Nutritional requirements in childhood. Errors of metabolism. Fluid and electrolyte homeostasis. Acid-based abnormalities in children. Thermoregulation in children. Role of vitamins in metabolism | 2 |
| **Module 3. Feeding of Infants and Children Over One Year of Age.** |
| 18. | Breast feeding of infants. Advantages of breast feeding. Behaviors for optimal infant feeding. Composition of the breast milk and its immunologic value. Comparison of human and animal milks. Methods for calculation of daily food amount for infants. Supplementation and complementary foods in infants breast feeding. Breast-fed baby’s nutrients and calories requirements. Physiologic needs of lactating woman. Technique, difficulties and contraindications for breast feeding. Prevention of hypogalactia and mastitis. Peculiarities of feeding of preterm neonates. Behaviors for optimal infant feeding: breast feeding on baby’s demand. | 2 |
| 19. | Artificial feeding of infants. Classification and characteristics of formulas for artificial feeding of infants. Rules and technique of formula preparation. Supplementation and complementary foods in infants artificial feeding. Formula-fed baby’s nutrients and calories requirements. | 2 |
| 20. | Mixed feeding of infants. Formulas for mixed feeding of infants. Rules and technique of formula preparation. Formula-fed baby’s nutrients and calories requirements. Supplementation and complementary foods in infants mixed feeding. Principles of rational nourishment of children over 1 yr of age. Dietary variables according to age. | 2 |
| Total | 40 |

**Practice Curriculum**

|  |  |  |
| --- | --- | --- |
| No | Topic | Hours |
| **Module 1. Development of a Child** |
| 1. | Periods of childhood: characteristics and peculiarities. Main principles of pediatric clinical interview. Methods of physical examination in pediatric practice. General inspection of a child. Evaluation of general condition of pediatric patients. | 2,5 |
| 2. | Peculiarities of neonatal period of childhood. Newborn infants: physical development and physiologic characteristics. Temporary states of neonates. Definition of infant’s maturity. Physical and physiological characteristics of preterm neonates. Delivery room care and nursery care of a newborn baby. Peculiarities of physical examination of newborn infants. Principles of sanitation in the neonatology department. General consideration in the care of neonates. | 2,5 |
| 3. | Physical development of the children of different age groups. Developmental aspects of biological acceleration. Techniques of anthropometry. | 2,5 |
| 4. | Principles and methods of physical development assessment in pediatric practice. Semiotics of physical development disorders. Physical training in pediatric practice. | 2,5 |
| 5. | Psychomotor development of the children of different age groups. Conceptual models of child development. | 2,5 |
| 6. | Evaluation of psychomotor development of a child. Peculiarities of evaluation of psychomotor development of neonates. Clinical manifestation of psychomotor development disorders, of mental retardation. Basic elements of neuro-psychological education (moral education, aesthetic education, etc). | 2,5 |
| 7.-8. | Final module control. | 5 |
| **Module 2. Anatomical and Physiological Peculiarities and Methods of Assessment of Organ Systems of Children. Semiotics of Pediatric Diseases.** |
| 9. | Anatomical and physiological peculiarities of nervous system of children. Physical examination of nervous system of a child. | 2,5 |
| 10. | Semiotics of neurologic diseases in pediatric practice (hydrocephalus, meningitis, encephalitis, cerebral palsy). Cerebrospinal fluid studies: macro- and microscopic findings in hydrocephalus, meningitis. General consideration in the care of pediatric patients with nervous system diseases. | 2,5 |
| 11. | Anatomical and physiological peculiarities of skin and appendageal structures of children. Physical examination of skin and subcutaneous fat of a child. | 2,5 |
| 12. | Semiotics of skin and adipose tissue diseases of children. | 2,5 |
| 13. | Anatomical and physiological peculiarities of musculoskeletal system of children. Physical examination of musculoskeletal system of a child. Semiotics of musculoskeletal system diseases in pediatric practice. | 2,5 |
| 14. | Anatomical and physiological peculiarities of respiratory system of children. Physical examination of respiratory system of a child. | 2,5 |
| 15. | Comparative and topographical percussion of the lungs in pediatric practice. Semiotics of percussive findings in pediatric practice. | 2,5 |
| 16. | Auscultation of the lungs in pediatric practice. Semiotics of auscultatory findings in pediatric practice. | 2,5 |
| 17. | Clinical manifestation of respiratory failure, respiratory distress syndrome. Pulmonary function testing in pediatric pulmonary medicine. | 2,5 |
| 18. | Anatomical and physiological peculiarities of cardiovascular system of children. Physical examination of cardiovascular system of a child (inspection, palpation, percussion, auscultation). | 2,5 |
| 19. | Percussion of borders of absolute and relative dullness of the heart. Semiotics of percussive findings in pediatric practice. Semiotics of cardiovascular system diseases in children. | 2,5 |
| 20. | Auscultation of the heart sounds in pediatric practice. Semiotics of cardiovascular system diseases in children (cyanosis, bradycardia, tachycardia). Semiotics of auscultatory findings in pediatric practice. Clinical manifestation of congenital and acquired heart conditions. Peculiarities of ECG of the children of different age groups. | 2,5 |
| 21. | Physical examination of digestive system of children (inspection, palpation, percussion, auscultation). Semiotics of digestive system diseases in pediatric practice. | 2,5 |
| 22. | Clinical manifestation of gastrointestinal and hepatic problems in children. Abdominal pain. | 2,5 |
| 23. | Physical examination of urinary system of children. Main symptoms of urinary system diseases. | 2,5 |
| 24. | Interpretation of pathological findings in routine urinalysis (proteinuria, hematuria, leukocyturia). Acute and chronic renal failure. General consideration in the care of pediatric patients with urinary system diseases. | 2,5 |
| 25. | Physical examination of endocrine system of children. Semiotics of hypo- and hyperfunction of certain endocrine glands. | 2,5 |
| 26. | Clinical manifestation of endocrinologic diseases in pediatric patients. | 2,5 |
| 27. | Anatomical and physiological peculiarities of hematopoietic system of children. Physical examination of hematopoietic system of children. Diagnostic studies in pediatric hematology. Semiotics of blood diseases in children (anemia, hemolytic syndrome, leukemia, hemorrhagic diseases). | 2,5 |
| 28. | Laboratory investigations for evaluation of functional condition of organs and systems in pediatric practice. Rules and technique of obtaining specimens for laboratory analysis. Diagnostic studies for evaluation of immunodeficiency in pediatric practice. | 2,5 |
| 29-30. | Getting up patient’s medical record | 5 |
| 31-32. | Final module control. | 5 |
| **Module 3. Feeding of Infants and Children Over One Year of Age.** |
| 33. | Breast feeding of infants. Composition of human milk. Methods for calculation of daily food amount for infants.  | 2,5 |
| 34. | Breast feeding of infants. Supplementation and complementary foods in infants breast feeding. Breast-fed baby’s nutrients and calories requirements. | 2,5 |
| 35. | Artificial feeding of infants. Classification of formulas for artificial feeding of infants. Rules and technique of formula preparation. Criterions of formula feeding efficiency. | 2,5 |
| 36 | Artificial feeding of infants. Supplementation and complementary foods in infants artificial feeding. Formula-fed baby’s nutrients and calories requirements. | 2,5 |
| 37. | Mixed feeding of infants. Formulas for mixed feeding of infants. Rules and technique of formula preparation and mixed feeding. Mixed-fed baby’s nutrients and calories requirements. Supplementation and complementary foods in infants mixed feeding. | 2,5 |
| 38. | Principles of rational nourishment of children over 1 yr of age. Dietary variables according to age. | 2,5 |
| 39-40 | Final module control. | 5 |
| Total | 100 |

**Curriculum of Self-works**

|  |  |  |
| --- | --- | --- |
| No | Topic | Hours |
| **Module 1. Development of a Child** |
| 1. | Theoretical preparation to the practical classes and practical skills training | 4 |
| 2. | Independent study of following topics: | 1 |
|  | Pediatrics as a science about a healthy and a sick child. Main stages of development of Pediatrics |  |
|  | Patterns of health care in Ukraine |  |
| 3. | Preparation to final module control | 5 |
| **Module 2. Anatomical and Physiological Peculiarities and Methods of Assessment of Organ Systems of Children. Semiotics of Pediatric Diseases.** |
| 1. | Theoretical preparation to the practical classes and practical skills training | 22 |
| 2. | Independent study of following topics: |  |
|  | Caloric consumption in childhood | 0,5 |
|  | Peculiarities of proteins metabolism in children | 0,5 |
|  | Peculiarities of carbohydrates metabolism in children | 0,5 |
|  | Peculiarities of fats metabolism in children | 0,5 |
|  | Peculiarities of fluid and electrolytes homeostasis in children, clinical manifestation of its disturbances. Acid-based abnormalities in children. | 0,5 |
|  | Role of vitamins for child’s growth and development. Vitamins and metabolic processes | 0,5 |
| 3. | Getting up patient’s medical record | 5 |
| 4. | Preparation to final module control | 5 |
| **Module 3. Feeding of Infants and Children over One Year of Age.** |
| 1. | Theoretical preparation to the practical classes and practical skills training | 4 |
| 2. | Independent study of following topic: |  |
|  | Peculiarities of feeding of preterm neonates. Behaviors for optimal infant feeding: breast feeding on baby’s demand | 1 |
| 3. | Preparation to final module control | 5 |
| Total | 55 |

**Plan of practical lessons in operative surgery and topographical anatomy for**

**3-d year english-medium students of medical department**

**(5-th term, 20 hours)**

|  |  |  |
| --- | --- | --- |
| **№** | **Тема** | **Год.** |
| **Content module 1. Topography and operative surgery of walls and organs of retroperitoneal space and pelvis.** |
| 1. | Topography and operative surgery of lumbar region and retroperitoneal space | 2 |
| 2. | Topography and operative surgery of pelvic walls, floors, nerves and vessels, cell. tissue spaces. | 2 |
| 3. | Topography and operative surgery of pelvic organs | 2 |
| **Content module 2. Topography and operative surgery of extremities.** |
| 4. | Topography and operative surgery of shoulder areas. Vessel ligature and vessel suturing. | 2 |
| 5. | Topography and operative surgery of arm, cubital fossa, anterior forearm. Veinsection, veinpuncture. Suture of tendon and nerve. | 2 |
| 6. | Topography and operative surgery of posterior forearm and hand. Operative treatment of panaris and tendosynovitis. | 2 |
| 7. | Topography and operative surgery of gluteal area, posterior femoral area, popliteal fossa. Intramuscular injections. Treatment of abscesses. | 2 |
| 8. | Topography and operative surgery of anterior femoral area, knee joint, anterior crural area. Knee joint puncture, artrotomy, joint reconstruction. | 2 |
| 9. | Topography and operative surgery of posterior crural area and foot. Principles of operative procedures on bones (amputation, exarticulation, joint resection). | 2 |
|  | Module II. |  |
|  | **In all hours** | **20** |

**Out of class work plan in operative surgery and topographical anatomy for**

**3-d year english-medium medical department students**

 **(5-th term)**

|  |  |  |
| --- | --- | --- |
| **N** | **Topic** | **hours** |
| 1. | Preparation for the practical periods (theoretical preparation and development of practical skills) | 7 |
| 2. | Individual out of class work on one of the topics (literature review)“Laparoscopy surgery of pelvis”“Desobliterative operations on the vessels”“Modern methods of osteosynthesis”  | 1 |
| 3. | Preparation for the final module control | 2 |
|  | **In all hours** | **10** |

**Plan of practical lessons in operative surgery and topographical anatomy for**

**3-d year english-medium students of medical department (5-th term, 20 hours)**

|  |  |
| --- | --- |
|  | **Date** |
| **Group №** | **4** | **5** | **3, 6** | **7** | **8** | **9** |
|  |  | **Hours** |  |  |  |  |  |  |
| **Content module 1. Topography and operative surgery of walls and organs of retroperitoneal space and pelvis.** |
| 1. | Topography and operative surgery of lumbar region and retroperitoneal space | **2** | **7.09** | **14.09** | **6.09** | **13.09** | **5.09** | **12.09** |
| 2. | Topography and operative surgery of pelvic walls, floors, nerves and vessels, cell. tissue spaces. | **2** | **21.09** | **28.09** | **20.09** | **27.09** | **19.09** | **26.09** |
| 3. | Topography and operative surgery of pelvic organs | **2** | **5.10** | **12.10** | **4.10** | **11.10** | **3.10** | **10.10** |
| **Content module 2. Topography and operative surgery of extremities.** |
| 4. | Topography and operative surgery of shoulder areas. Vessel ligature and vessel suturing. | **2** | **19.10** | **26.10** | **18.10** | **25.10** | **17.10** | **24.10** |
| 5. | Topography and operative surgery of arm, cubital fossa, anterior forearm. Veinsection, veinpuncture. Suture of tendon and nerve. | **2** | **2.11** | **9.11** | **1.11** | **8.11** | **31.10** | **7.11** |
| 6. | Topography and operative surgery of posterior forearm and hand. Operative treatment of panaris and tendosynovitis. | **2** | **16.11** | **23.11** | **15.11** | **22.11** | **14.11** | **21.11** |
| 7. | Topography and operative surgery of gluteal area, posterior femoral area, popliteal fossa. Intramuscular injections. Treatment of abscesses. | **2** | **30.11** | **7.12** | **29.11** | **6.12** | **28.11** | **5.12** |
| 8. | Topography and operative surgery of anterior femoral area, knee joint, anterior crural area. Knee joint puncture, artrotomy, joint reconstruction. | **2** | **14.12** | **21.12** | **13.12** | **20.12** | **12.12** | **19.12** |
| 9. | Topography and operative surgery of posterior crural area and foot. Principles of operative procedures on bones (amputation, exarticulation, joint resection). | **2** | **28.12** | **4.01** | **27.12** | **3.01** | **26.12** | **2.01** |
|  | Module II. |  | **11.01** | **18.01** | **10.01** | **17.01** | **9.01** | **16.01** |
|  | **In all hours** | **20** |  |  |  |  |  |  |

**List**

**of Individual Tasks on Radiology**

**for 3-rd year medical faculty students (English medium)**

**in 2012-2013 academic year**

|  |  |  |
| --- | --- | --- |
| **№** | **Topic** | **Hours** |
| 1 | Dosimetry of the ionizing radiation. Units of exposure & scattered dose. Methods of the estimation of ionizing radiation doses: physical, chemical, termoluminescent, biological. | 2 |
| 2 | Methods of the radiological diagnostics in endocrinology (thyroid, adrenal gland, pancreas, pituitary gland, ovary) | 3 |
| 3 | Radiocardiography in functional heart evaluation | 3 |
| 4 | Patients with malignant tumors of the hepatobiliary system | 2 |
| 5 | Evaluation of the renal hypertension | 2 |
| 6 | Radiological studies in oncology: oncological markers | 3 |
|  | Total | 15h |

**List**

**of Individual Tasks on Medical Radiology**

**for 3-rd year medical faculty students**

**in 2012-2013 academic year**

|  |  |  |
| --- | --- | --- |
| **№** | **Topic** | **Hours** |
| 1 | Basic & special methods of the X-ray studies of the respiratory system in paediatrics | 2 |
| 2 | X-ray semiotics of the professional lung diseases | 2 |
| 3 | Additional X-ray studies of the heart & great vessels. X-ray semiotics of the heart diseases in paediatrics | 2 |
| 4 | Additional X-ray studies of the colon | 2 |
| 5 | Special X-ray studies of the urinary tract, liver & bile ducts  | 2 |
| 6 | X-ray semiotics of the of the urinary tract, liver & bile ducts diseases in paediatrics | 2 |
| 7 | Radiographic age peculiarities of the bones & joints in paediatrics. X-ray peculiarities of the bone fractures in kids (epiphysiolysis, subperiostal fracture), inborn hip dislocation | 3 |
| 8 | X-ray semiotics of the foreign bodies. Fistulography | 2 |
| 9 | X-ray diagnostics of the skull & spine injuries. Pneumoencelography | 2 |
| 10 | X-ray semiotics of the benign & malignant tumours in ophthalmology & otolaryngology  | 2 |
| 11 | CT of the bones & joints (diagnostics of the benign & malignant tumours) | 2 |
|  | Total  | 23h |

**of Lectures on Radiology**

**for 3-rd year medical faculty students (English medium)**

**in 2012-2013 academic year**

|  |  |  |
| --- | --- | --- |
| **№** | **Topics** | **Hours** |
| 1 | Basic methods of the image obtaining in medical radiology (X-rays, CT, MRI). Defence principles from the radiation exposure of the patients & labour-protective measures for radiological units personnel. Indications & contraindications for radiological studies, dose limitation for the X-ray procedure. | 2 |
| 2 | Basic & additional methods of the X-ray studies for the evaluation of the respiratory system. Peculiarities of the visualizing according to the age & constitutional normal range. X-ray semiotics of the respiratory tract diseases. | 2 |
| 3 | X-ray studies of the heart & great vessels. Peculiarities of the visualizing according to the age & constitutional normal range. X-ray semiotics of the heart & great vessels pathology (coronary heart disease, arterial hypertension, myocardial infarction, congenital & acquired valve diseases, aneurisms, inflammatory diseases, tumours). | 2 |
| 4 | X-ray studies of the GIT, urinary tract, liver & bile ducts. X-ray semiotics of the GIT, urinary tract, liver & bile ducts diseases. X-ray studies in the emergency cases (injuries, haemorrhages, pain syndrome, obstruction). | 2 |
| 5 | Methods of the X-ray studies of the bones & joints. Age peculiarities of the bones & joints visualizing. X-ray semiotics of the diseases & injuries of the bones & joints. | 2 |
| 6 | X-ray studies of the central nervous system. X-ray semiotics of the skull, spine, brain & spinal cord injuries. X-ray studies & X-ray semiotics of the main diseases in otolaryngology & ophthalmology. X-ray diagnostics of the emergency cases. | 2 |
|  | Тоtal | 12 |

**List of Practical Seminars on Radiology**

**for 3-rd year medical faculty students**

**in 2012-2013 academic year**

|  |  |  |
| --- | --- | --- |
|  | **Module 1** |  |
| 1 | Physical background of the radiation therapy. Main methods. Equipment for the distant gamma-therapy. Equipment & sources for contact therapy. Properties of the main sources, which are used for radiation therapy. Structure of radiation therapy units. | 2 |
| 2 | Interaction of the ionizing radiation with matter. Mechanism of the radiation damage of the tumorous cells. Radiotherapeutical interval. Indications & contraindications for radiation therapy. Creating a schedule of the radiation therapy of the deep-located tumors. Estimation of the focal dose & rhythm of radiation. | 2 |
| 3 | Radiation combined & complex therapy of the malignant neoplasias (larynx, pulmonary, breast, cervix uteri, skin cancer). | 2 |
| 4 | X-ray-therapy. Equipment & physical basis for the X-ray-therapy.Radiation therapy of the not-neoplastic diseases. Short-range & distant X-ray therapy of neoplastic diseases. | 2 |
| 5 | Ultrasound diagnostics. Physical basis of ultrasonography. Parameters of the sound vibrations. Acoustic environment. Interaction of the ultrasound & acoustic environment.  | 2 |
| 6 | Biological effect of the ultrasound. Equipment. Basic principles of obtaining ultrasonographic image. Types of scanning. Types of the ultrasound sensors. Doppler effect. Basic methods of the Doppler examinations. Parameters of the blood-flow in vessels. Ultrasonographic contrasting. Contrast media. | 2 |
| 7 | Abilities of the ultrasonography in gastroenterology. Indications for studies. Sencitivity & specificity of the ultrasound in diagnostics of the liver, biliary tract, pancreatic & bowel pathology. Echo-anatomy of the of the organs of peritoneal cavity & great vessels. Eco-semiotics of the GIT pathology. Peculiarities of the studies in pediatrics. Special methods (cholekinetic test). | 2 |
| 8 | Ultrasound in obstetrics & gynecology. Echo-anatomy of the female uro-genital tract. Main criteria of the evaluation of the fetus development. Special techniques (contrast study of the salpinx permeability, biophysical profile). Ultrasound in endocrynology. Echo-anatomy of the thyroid & adrenal glands,evaluation of the thyroid hyperplasia in kids. Screening methods of the thyroid gland evaluation. | 2 |
| 9 | Ultrasound in complex diagnostics of the urinary system. Echo-anatomy of the urinary system. Basic & special methods of the evaluation. Principles of the ultrasound litotripsy. Place of the ultrasonography in oncohematologic patients.  | 2 |
| 10 | **MCQ – control of Module 1 adoption** | 2 |
| Total 20 h |

|  |  |  |
| --- | --- | --- |
| **№** | **Module 2** | **Hours** |
| 1 | Types of the radiological units. Equipment & structure of the radiodiagnostic laboratory. Rules of working with radioactive substances. Types of radiopharmaceuticals. Basic principles of radionuclide diagnostics. Scheme of the assessing of the scannogram.  | 2 |
| 2 | Radionuclide methods in endocrinology. RPL’s which are used for evaluation of thyroid gland. Assessing of the thyroid gland function by means of I131, Tc99m -intake tests. Radioimmunoassay – estimation of T3, T4, TTH. Radionuclide visualisation of the thyroid gland: scanning, scintigraphy. Diagnostic algorithm of thyroid gland, diagnostic value. | 2 |
| 3 | Radionuclide methods of assessing hepatic & biliary system. RPL’s & radionuclide diagnostic procedures for evaluating function of the polygonal hepatic cells: hepatography, hepatobiliscintigraphy. Evaluating function of the reticular-endothelium system, radionuclide visualisation of the liver: scanning, scintigraphy. Radionuclide diagnostic of the gall bladder motor function. Diagnostic algorithm, diagnostic value. | 2 |
| 4 | Radionuclide methods of assessing kidneys. RPL’s which are used for evaluation of urinary system. Radionuclide tubular & glomerular renography.  | 2 |
| 5 | Radionuclide visualisation of the kidneys: scanning, scintigraphy. Diagnostic algorithm, diagnostic value. | 2 |
| 6 | Radionuclide methods in oncology. Tumorotropic RPL’s. Positive & negative scanning & scintigraphy. Diagnostic of the malignant tumors with radioactive phosphor. Methods of the positive visualisation of the liver, lungs, bone, thyroid, brain, retroperitoneal & soft tissue tumors.  | 2 |
| 7 | Radionuclide diagnostics of the cardio-vascular system. Radiocardiography, myocardium visualisation.  | 2 |
| 8 | Radionuclide diagnostics of the lungs: assessing of the ventilatory function, pulmonary blood circulation, pulmonary visualisation. | 2 |
| 9 | Radionuclide tests in assessment of bones and joints. Radionuclide methods of CNS examinations. | 2 |
| 10 | **MCQ – control of Module 2 adoption** | 2 |
|  | TOTAL  | 20 h |

|  |  |  |
| --- | --- | --- |
| N | **Module 3** | Hours |
| 1 | X-ray methods of imaging (source of radiation, object of the study, detector of the radiation). Artificial contrasting of the object. Basic & special methods of the X-ray studies. X-ray methods of the lung assessment, normal X-ray anatomy of the lung. Basic X-ray symptoms of the lung pathology. | 2 |
| 2 | X-ray semiotics of the lung diseases (acute & chronic pneumonia, pulmonary artery thrombosis, chronic bronchitis, emphesema, limited non-specific pneumosclerosis, tuberculosis, primary & metastatic cancer, pleural effusion). Diagnostic algorithm. | 2 |
| 3 | Methods of X-ray Examination & Normal Appearances of the Cardiovascular System. X-ray symptoms & syndromes of the heart & great vessels lesion. X-ray semiotics of the Cardiovascular diseases (coronary heart disease, myocardial infarction, arterial hypertension, congenital & acquired valve diseases, pericarditis) | 2 |
| 4 | X-ray methods of imaging of the Gastrointestinal Tract. X-ray anatomy of the Oesophagus, Stomach, Small Bowel, Colon. X-ray signs & syndromes of the GIT lesions. X-ray semiotics of the GIT diseases. Radiologic examination tactics & radiological signs of emergency states. Diagnostic algorithm of the abdominal cavity organs. |  |
| 5 | Methods of the X-ray examination of the liver & bile ducts. X-ray anatomy & physiology of the liver & bile ducts. X-ray semiotics of the liver & bile ducts diseases. | 2 |
| 6 | Radiological examination of the Urinary system. X-ray anatomy & physiology of the urinary tract. X-ray semiotics of the Urinary system diseases. | 2 |
| 7 | Methods of the X-ray examination of the bones & joints. Age peculiarities of the skeleton. | 2 |
| 8 | X-ray semiotics of the diseases & injuries of the bones & joints. X-ray semiotics of the benign & malignant tumours of the bones & joints in adults & children. | 2 |
| 9 | X-ray examination of the central nervous system. X-ray anatomy of the skull, spine, brain & spinal cord. X-ray examination of the cerebral blood-flow. X-ray semiotics of the main diseases of the CNS. Vertebrogenic pain syndrome. X-ray studies in otolaryngology & ophthalmology. X-ray semiotics of the nasal cavity, additional sinuses, pharyngeal, ear, temporal bone diseases. | 2 |
| 10 | **MCQ – control of Module 3 adoption** | 2 |
|  | TOTAL | 20 h |