Azerbaijan Medical University **“ I confirm”**

**EMPLOYEE TRAINING PROGRAM** Head of the department

on the subject prof. Bakhshaliyev A.B.

**of Clinical Pharmacology**  \_\_\_\_\_\_\_\_\_

(Sillabus) 29.09.2021

**Code of the subject:** IPF -B30 – TPF (070101), IPF –B 34 **Dentistry** (070104),

IPF – 20 **Pharmacy** (050806)

**Type of subject:** compulsory

**Teaching semester of the subject:** VII, IX,X, XI,XII

**Course– IV-V-VI Course**

**Subject credit:** -2,3, 4

**Training load**: TPF- V Course –semester IX-X : lecture 10 hours; practice 35 hours

**Dentistry**: V Course - semester IX: lecture 10 saat; practice 20 hours

**Pharmacy**: IV Course - semester IX: lectures 10 hours; practice 50 hours

**Elective subject**: VI Course pharmacotherapy – IX-X semester: lectures 10 hours; practice 30 hours

**Teaching form of the subject:** visual

**Language form of the subject:** Azerbaijani, Russian, English

**Subjective teachers:**

**First name, middle name, academic degree -**

**E-mail:** department\_clinicalpharmacology@amu.edu.az

Contact numbers of the department**:**(+994 12) 441 33 18 (338)

***PREPECTIVES:***

Prerequisites: Pharmacology and Internal Diseases

 ***CORRECTIONS:***

There is no need to teach other subjects at the same time as teaching this subject.

***DESCRIPTION OF THE COURSE*:**

The recent expansion of the pharmaceutical market in the world, the presence of various pathologies in patients, as well as the trends in polyprogrammation in practicing physicians have led to the need for in-depth study of clinical pharmacology by doctors and students

***The aim of the course:***

The aim of clinical pharmacology is to teach students the most effective and safe selection of medicines during pharmacotherapy, taking into account the latest information on pharmacokinetics, pharmacodynamics, interactions and side effects of drugs; and development of safe and effective treatment methods, selection of adequate dosages, optimal injection methods and regimens, taking into account the chronobiological and pharmacokinetic properties of drugs, programming and evaluation of early and subsequent side effects, the study of possible interactions during complex treatment, to learn how to choose ir

***RESULTS OF THE COURSE:***

**As a result of studying the subject taught in the Department of the faculte of Medical Prevention at the Department of Clinical**

**Pharmacology, students:**

**Must know:** Effective and safe selection of drugs during pharmacotherapy, taking into account the latest information on the pharmacokinetics, pharmacodynamics, interactions and side effects of the drugs used in healthy and sick individuals.

**Must be able to:** Improve patients prognosis by maintaining accurate collection of drug anamnesis, choosing the right pharmacotherapy for major diseases and effective pharmacotherapy of other pathological processes

**Must be able to**: Clinical pharmacological features, safe and effective selection of selected drugs in the patient's pharmacotherapy

**CALENDAR-SCHEDULE OF LECTURES OF CLINICAL PHARMACOLOGY FOR THE**

**STUDENTS I and II THERAPEUTIC AND PROPHYLACTIC FACULTY**

**(autumn-summer semester 2021-2022)**

|  |  |  |  |
| --- | --- | --- | --- |
| **N** |  **Topics**  | **Date** | **Hours** |
| **1** | Introduction to clinical pharmacology: goals and objectives, pharmacodynamics, pharmacokinetics and pharmacogenetics. Stages of drugs testing. Basic terminology |  | 2 |
| **2** | Side effects and interactions of drugs |  | 2 |
| **3** | Features of pharmacotherapy in pregnant and lactating women and adult patients. |  | 2 |
| **4** | Fundamentals of rational antibiotic therapy |  | 2 |
| **5** | Differential approach to pharmacotherapy of arterial hypertension and coronary heart disease |  | 2 |

 **Totally: 10 hours**

 **CALENDAR-SCHEDULE OF PRACTICAL TRAINING OF CLINICAL PHARMACOLOGY FOR THE STUDENTS I AND II THERAPEUTIC**

 **AND PROPHYLACTIC FACULTY (autumn-summer semester 2021-2022)**

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| **N** |  **Topics**  | **Date** | **Hours** |
| **1** | Pharmacotherapy for coronary heart disease (CHD). Clinical pharmacology of antianginal drugs (nitrates , beta blockers and calcium channel blockers) |  | 2 |
| **2** | Antianginal drugs. Clinical pharmacology of hemostatic effect and lipid-lowering drugs |  | 2 |
| **3** | Pharmacotherapy of arterial hypertension: hypotensive drugs(the effekt of central and peripheral drugs: sympatholytics and ganglioblokers) Role in treatment ACE inhibitors |  | 2 |
| **4** | Hypotensive drugs: Diuretics and other preparations. Differential selection of hypotensive drugs in the treatment of arterial hypertension |  | 2 |
| **5** | Pharmacotherapy of arrhythmias. Clinical pharmacology of drugs |  | 2 |
| **6** | Clinical pharmacology of antiarrhythmic drugs. Differential selection of arrhythmias treatment |  | 2 |
| **7** | Pharmacotherapy of Heart Failure. Cardiotonic drugs. |  | 2 |
|  **8** | Pharmacotherapy of BOS : Clinical pharmacology of broncholitic drugs |  | 2 |
|  **9** | Pharmacotherapy of BOS : Clinical pharmacology inhalation glucocorticosteroids |  | 2 |
| **10** | Antiinflammatory drugs: Clinical pharmacology of nonsteroidal drugs |  | 2 |
| **11** | Antiinflammatory drugs: Clinical pharmacology of steroidal drugs |  | 2 |
| **12** | Clinical pharmacology of antibacterial drugs. |  | 2 |
| **13** | Clinical pharmacology of antimicrobial drugs. |  | 2 |
| **14** | Pharmacotherapy of gastrointestinal tract diseases. Clinical pharmacology of drugs used in stomach ulcers |  | 2 |
| **15** | Pharmacotherapy of gastrointestinal tract diseases. Clinical pharmacology of gallbladder and hepatoprotector drugs |  | 2 |
| **16** | Pharmacotherapy of diabetes |  | 2 |
| **17** | Clinical pharmacology of psychotropic drugs |  | 2 |
| **18** | Final lesson |  | 1 |

 **Totally: 35 hours**

 **CALENDAR-SCHEDULE OF LECTURES OF**

 **CLINICAL PHARMACOLOGY FOR THE**

 **IV COURSE STUDENTS AT THE FACULTY**

 **OF PHARMACY**

 **(autumn-summer semester)**

 **2021-2022.**

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| --- | --- | --- | --- |
| **N** |  **Topics**  | **Date** | **Hours** |
| **1** | Introduction to clinical pharmacology: goals and objectives, pharmacodynamics, pharmacokinetics and pharmacogenetics. Stages of drugs testing. Basic terminology |  | 2 |
| **2** | Side effects and interactions of drugs |  | 2 |
| **3** | Features of pharmacotherapy in pregnant and lactating women and adult patients. |  | 2 |
| **4** | Fundamentals of rational antibiotic therapy |  | 2 |
| **5** | Pharmacotherapy of drugs used in some emergency situations in internal disease  |  | 2 |

 **Totally: 10 hours**

 **CALENDAR-SCHEDULE OF PRACTICAL TRAINING**

 **OF CLINICAL PHARMACOLOGY FOR THE**

 **IV COURSE STUDENTS AT THE FACULTY**

 **OF PHARMACY(autumn-summer semester) 2021-2022.**

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| **N** |  **Topics**  | **Date** | **Hours** |
| **1** | Principles of pharmacotherapy of cardiovascular diseases:hypotensive drugs |  | 4 |
| **2** | Clinical pharmacology of antianginal drugs |  |  |
| **3** | Clinical pharmacology of antiarrhythmic drugs.  |  | 4 |
| **4** | Clinical pharmacology of cardiotonic drugs |  |  |
| **5** | Pharmacotherapy of BOS  |  | 4 |
| **6** | Antiinflammatory drugs: Clinical pharmacology of nonsteroidal and steroidal drugs |  | 4 |
| **7** | Clinical pharmacology of antibacterial drugs. |  | 4 |
| **8** | Clinical pharmacology of antibacterial drugs. |  | 4 |
| **9** | Pharmacotherapy of gastrointestinal tract diseases. |  |  |
| **10** | Pharmacotherapy of diseases of the central nervous system. |  | 4 |
| **11** | Clinical pharmacology of drugs that affect hemostasis |  | 4 |
| **12** | Pharmacotherapy of diabetes |  | 4 |

 **Totally: 50 hours**

 **CALENDAR-SCHEDULE OF LECTURES OF**

 **CLINICAL PHARMACOLOGY FOR THE**

 **V COURSE STUDENTS AT THE FACULTY**

 **OF DENTISTRY**

 **(autumn-summer semester)**

 **2021-2022.**

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| **N** |  **Topics**  | **Date** | **Hours** |
| **1** | Introduction to clinical pharmacology: goals and objectives, pharmacodynamics, pharmacokinetics and pharmacogenetics. Stages of drugs testing. Basic terminology |  | 2 |
| **2** | Side effects and interactions of drugs |  | 2 |
| **3** | Features of pharmacotherapy in pregnant and lactating women and adult patients. |  | 2 |
| **4** | Pharmacotherapy of drugs used in some emergency situations in dental practice |  | 2 |
| **5** | Fundamentals of rational antibiotic therapy |  | 2 |

 **Totally: 10 hours**

**CALENDAR-SCHEDULE OF PRACTICAL TRAINING OF CLINICAL PHARMACOLOGY FOR THE V COURSE STUDENTS AT THE FACULTY**

 **OF DENTISTRY(autumn-summer semester 2021-2022.)**

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| **N** |  **Topics**  | **Date** | **Hours** |
| **1** | Pharmacotherapy of oral cavity diseases |  | 2 |
| **2** | Antiinflammatory drugs: Clinical pharmacology of nonsteroidal and steroidal drugs |  |  |
| **3** | Antiinflammatory drugs: Clinical pharmacology of nonsteroidal and steroidal drugs |  | 2 |
| **4** | Basic principles of antibiotic therapy |  | 2 |
| **5** | Clinical pharmacology of antibacterial drugs. |  | 2 |
| **6** | Clinical pharmacology of drugs used during hemostasis disorder |   | 2 |
| **7** | Clinical pharmacology of drugs used during hemostasis disorder |  | 2 |
| **8** | Pharmacotherapy of drugs used in emergency situations in dental practice |  | 2 |
| **9** | Pharmacotherapy of drugs used in emergency situations in dental practice |  | 2 |
| **10** | Pharmacotherapy of drugs used in emergency situations in dental practice |  | 2 |

 **Totally: 20 hours**

***Topics of independent works:***

*1. Features of pharmacotherapy of heart failure.*

*2. Features of the use of antianginal drugs.*

*3. Differential approach to the definition of antimarithmic drugs.*

*4. Clinical pharmacology of drugs used for treatment of bronchobstructive syndrome.*

*5. Basic principles of antibiotic therapy.*

*6. Pharmacotherapy of gastric ulcers*

*7. Clinical pharmacology of non-steroidal anti-inflammatory drugs.*

*8. Interaction and side effects of drugs.*

*9. Principles of pharmacotherapy of emergency conditions in the clinic of internal diseases.*

*10. Pharmacotherapy of endocrine system diseases.*

**Attendance Requirements:**

    The maximum score for the attendance to course is 10 points. Points are mainly given: if a student participates in all subject classes during the semester, he / she is given 10 points. Each semester 8% of the hours spent on the subject are taken away. If the total number of academic hours missed in all subjects exceeds the limits set by the statutory documents, the student is not allowed to take an exam session and a certain decision is made.

**EVALUATION:**

Getting 100 points to earn a credit on the subject will be as follows:

Up to 50 points including:

10-point attendance

10 points - freelance work (records of illness, examination of the patient, etc.)

20 points are points to be collected in lessons.

10 points - skill

50 points will be collected in the exam. The exam will be tested.

The test will consist of 50 questions. Each question is one point. Wrong answer questions erase scores of questions that are answered correctly.

If a minimum of 17 points is not collected in the exam, the points earned before the exam will not be collected. The points earned during the exam and before the exam are summarized and the final score is evaluated as follows.

"Excellent" -91-100

"Very good" -81-90

"Good" -71-80

"Enough" -61-70

“Satisfactory” -51-60

“Insufficient” is below 51 points

**FREELANCE WORK:**

Freelance work is to examine the patient and record the patient's history.

Course V - Students are provided with free curing, records of illness, prescribing student treatment for existing pathology, drawing up a clinical pharmacological map of the drugs used, and pharmacodynamics, pharmacokinetics, indications, and side effects. At the end of clinical pharmacology education, students present their history of illness to teachers.

   The results of freelance work are recorded in the journal.

 **LITERATURE AND MATERIALS:**

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| **1.** | Basic & Clinical Pharmacology | Bertram G. Katzung | **14-th edution** |
| **5.** | Lippincott Illustrated Reviews: Pharmacology | **Richard harvey** | **5-th edution** |

***COURSE WORK: None***

***EXPERIENCE: None.***

***Violation of the rules of conduct. In case of violation of the internal rules of the Student University, measures are provided for in the Regulations.***

***To study students' perceptions of the subject.-------------------------------------------------------------------------------------------***

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***PREPARED*:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**