|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **M Sc** | | | | | |
| Course Code | Course Name | ECTS | T+P+L | C/E | Language |
| Fall Semester | | | | | |
| 521703201 | [UNWANTED EFFECTS OF DRUGS](#DERS521701201) | 7,5 | 3+0+0 | ELECTIVE | TURKISH |
| 521703202 | [DRUGS OF ABUSE AND DEPENDENCE](#DERS521701202) | 7,5 | 3+0+0 | ELECTIVE | TURKISH |
| 521703203 | [PHARMACOKINETICS](#DERS521701203) | 7,5 | 1+4+0 | ELECTIVE | TURKISH |
| 521703204 | [EXPERIMENTAL PHARMACOLOGY](#DERS521701204) | 7,5 | 1+4+0 | COMPULSORY | TURKISH |
| 521703205 | [TREATMENT OF ACUTE POISONING](#DERS521701205) | 7,5 | 3+0+0 | ELECTIVE | TURKISH |
| 521703206 | [COMPUTER USING IN PHARMACOLOGY](#DERS521701206) | 7,5 | 2+2+0 | ELECTIVE | TURKISH |
| 521703207 | [BASIC PHARMACOLOGY](#DERS521701207) | 7,5 | 3+0+0 | COMPULSORY | TURKISH |
| 521703208 | [METHODS OF INSTRUMENTAL ANALYSIS IN PHARMACOLOGY](#DERS521701208) | 7,5 | 1+0+2 | ELECTIVE | TURKISH |
| 521701700 | SPECILIZED FIELD COURSE | 5 | 3+0+0 | COMPULSORY | TURKISH |
|  | |  |  |  |  |
| Spring Semester | | | | | |
| 521704201 | [PHARMACOLOGY OF RESPIRATORY SYSTEM](#DERS521702201) | 7,5 | 3+0+0 | ELECTIVE | TURKISH |
| 521704202 | [PHARMACOLOGY OF](#DERS521702202)  [GASTROINTESTINAL SYSTEM](#DERS521702202) | 7,5 | 3+0+0 | ELECTIVE | TURKISH |
| 521704203 | [TOXICOLOGY](#DERS521702203) | 7,5 | 3+0+0 | ELECTIVE | TURKISH |
| 521704204 | [TRANSMISSION MECHANISMS](#DERS521702204)  [IN NERVOUS SYSTEM](#DERS521702204) | 7,5 | 3+0+0 | ELECTIVE | TURKISH |
| 521704205 | [CLINICAL PHARMACOLOGY](#DERS521702205) | 7,5 | 2+2+0 | ELECTIVE | TURKISH |
| 521704206 | [THE PRINCIPLES OF DRUG ACTIONS](#DERS521702206) | 7,5 | 3+0+0 | COMPULSORY | TURKISH |
| 521704207 | [THERAPEUTİC DRUG MONITORING (TDM)](#DERS521702207) | 7,5 | 3+0+0 | ELECTIVE | TURKISH |
| 521704208 | [RATIONAL DRUG USE](#DERS521702208) | 7,5 | 2+0+0 | ELECTIVE | TURKISH |
| 521704209 | [PHARMACOLOGICAL BASIS OF DIABETES MELLITUS](#DERS521702209) | 7,5 | 2+0+0 | ELECTIVE | TURKISH |
| 521704210 | [PHARMACOLOGICAL PRINCIPLES OF INFLAMMATION](#DERS521702210) | 7,5 | 2+0+0 | ELECTIVE | TURKISH |
| 521701700 | SPECILIZED FIELD COURSE | 5 | 3+0+0 | COMPULSORY | TURKISH |
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** ESOGU INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF MEDICAL PHARMACOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **COURSE CODE:** | **521703201** | | **DEPARTMENT:** MEDICAL PHARMACOLOGY | | | |
| **COURSE NAME:** | UNWANTED EFFECTS OF DRUGS | |  | | | |
| **INSTRUCTOR NAME** | | **COURSE LANGUAGE**  **Turkish: X**  **English: ** | | **Course Catagory** | | |
| Technical | Medical | Other(……) |
| Assist. Prof. Dr. Engin YILDIRIM | |  | |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **M.SC.** | **Ph.D.** | **COURSE OF PROVINCE** |
| **** | **x** | **** | **** |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **SEMESTER** | **WEEKLY COURSE PERIOD** | | | **COURSE OF** | | | |
| **Theoric** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **TYPE** | |
| Spring ****  Autumn **X** | 3 |  |  | 3 | 7,5 | COMPULSORY ELECTIVE  **X** | |
|  | | | | | | | |
| **ASSESMENT CRITERIA** | | | | | | | |
| **MID-TERM** | | | **ACTIVITY** | | | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | | | 1 | 50 |
| 2 nd Mid- Term | | |  |  |
| Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other (………) | | |  |  |
| **FINAL** | | | Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other(……written………….) | | | **1** | **50** |
| **MAKE-UP EXAM** | | | Oral | | Written | Oral and Written | Multiple Choice |
|  | |  |  |  |
| **PREREQUISITE(S)** | | |  | | | | |
| **COURSE CONTENT** | | | Unwanted effects may occur when the drugs not used at appropriate patient, at appropriate disease, appropriate duration and dose. Unwanted pharmacological effects can be classified as lean toxic effects, functional, biochemical, structural toxic effects and Special toxic effects; mutagenic, teratogenic, carcinogenic toxic effects. | | | | |
| **COURSE AIMS** | | | 1 - To learnwhat the toxic effects of the drugsare.  2. To learnwhat the lean toxic effects of the drugsare.  3. To learnwhat the special toxic effectsof the drugsare.  4. To learn what drug allergy is.  5. To learn what theinstability reactions are.  6. To learn what the idiosencratic reactions are.  7. To learn how the drug toxicity measured experimentally.  8. To learn what the therapeutic index is. | | | | |
| **COURSE OBJECTIVES** | | | To ensure the use of drugs with the least damage. | | | | |
| **TEXTBOOK(S)** | | | 1. KAYAALP, S O. (2012); Akılcıl Tedavi Yönünden Tıbbi Farmakoloji. | | | | |
| **REFERENCES** | | | 1. CİNGİ, I; EROL, K. (1996); Anadolu Üniversitesi Açık Öğretim Fakültesi Sağlık Personeli Önlisans Eğitimi, Farmakoloji.   1. DÖKMECİ, I. (2007); M.Y. Okulları için Farmakoloji Dersleri. Nobel Tıp Kitapevleri. 2. SÜZER, O. (2005); Farmakolojinin Temelleri.. Nobel Tıp Kitapevleri. 3. GOODMAN AND GİLLMAN‘S (2011). The Pharmacological basis of Therapeutics. 12th edition   5. Basic and Clinical Pharmacology: Bertram G. Katzung,  6. Pharmacology: H.P.Rang, M.M Dale, J.M.Ritter,  7. Lippincott’sPharmacology: Richard Harvey, Pamela Champe,  8.Human Pharmacology, Molecular toClinical: Brody,Larner,Mınneman. | | | | |

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|  | **COURSE SYLLABUS** | |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | Gereral toxic effects |
| 2 |  | Special toxic effects, mutogenetic effects |
| 3 |  | Teratogenetic effects |
| 4 |  | Classify of teratogenetic risks |
| 5 |  | Cancerogenetic effects |
| 6 |  | Cancerogenetic drugs |
| 7 |  | Toxic side effects which depend on genetic differences |
| 8 |  | Mid-term exam |
| 9 |  | Drug allergy |
| 10 |  | Types of allergic reactions |
| 11 |  | Hypersecitivity reactions |
| 12 |  | Idiosyncratic reactions |
| 13 |  | Experimental evaluate of drug toxicity |
| 14 |  | Therapeutic index |
| 15 |  | Prevent of terotogenetic effects in humans |
| 16 |  | Protect against the cancerogenetic effects |
| 17 |  | Safe/toxic ratio |
| 18 |  | Final exam |

**PROGRAM QUTCOMES**

Place choose never(1), few(2) or many(3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | gather as well as apply knowledge of health sciences |  |  | **X** |
| 2 | ask scientific questions and form hypothesis |  |  | **X** |
| 3 | search and interpret scientific literature |  | **X** |  |
| 4 | design and conduct experiments as well as analyze and interpret the data |  | **X** |  |
| 5 | learn how to use the experimental equipment effectively |  | **X** |  |
| 6 | function on multi-disciplinary teams |  |  | **X** |
| 7 | identify, formulate, and solve medical problems |  |  | **X** |
| 8 | use computer effectively both in conducting the experiments and analyzing the data |  | **X** |  |
| 9 | understand the impact of experimental solutions on national and international sciences |  |  | **X** |
| 10 | use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | get an understanding of professional and ethical responsibility |  |  | **X** |
| 12 | get a recognition of the need for, and an ability to engage in lifelong learning |  |  | **X** |
| 13 | other (……………………………………….) |  |  | **X** |
| 14 | other (……………………………………….) |  |  | **X** |

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| **Instructor Name**  **Sign**  Assist. Prof. Dr. Engin YILDIRIM | **Date:** 24.07.2013 |

** ESOGU INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF MEDICAL PHARMACOLOGY**

**COURSE INFORMATION FORM**

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| --- | --- | --- | --- | --- | --- | --- |
| **COURSE CODE:** | **521703202** | | **DEPARTMENT:** MEDICAL PHARMACOLOGY | | | |
| **COURSE NAME:** | DRUGS OF ABUSE AND DEPENDENCE | |  | | | |
| **INSTRUCTOR NAME**  Prof. Dr. Fatma Sultan KILIÇ | | **COURSE LANGUAGE**  **Turkish: X**  **English: ** | | **Course Catagory** | | |
| Technical | Medical | Other(……) |
|  | |  | |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **M.SC.** | **Ph.D.** | **COURSE OF PROVINCE** |
| **** | **X** | **** | **** |

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| **SEMESTER** | **WEEKLY COURSE PERIOD** | | | **COURSE OF** | | | |
| **Theoric** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **TYPE** | |
| Spring ****  Autumn **X** | 3 |  |  | 3 | 7,5 | COMPULSORY ELECTIVE  **X** | |
|  | | | | | | | |
| **ASSESMENT CRITERIA** | | | | | | | |
| **MID-TERM** | | | **ACTIVITY** | | | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | | | 1 | 50 |
| 2 nd Mid- Term | | |  |  |
| Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other (………) | | |  |  |
| **FINAL** | | | Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other(……written………….) | | | **1** | **50** |
| **MAKE-UP EXAM** | | | Oral | | Written | Oral and Written | Multiple Choice |
|  | |  |  |  |
| **PREREQUISITE(S)** | | |  | | | | |
| **COURSE CONTENT** | | | Psychologic dependence, physiologic dependence, personal land social damage in drug dependence, types of drug of abuse and dependence (opioids, alcohol, barbiturates, stimulants, tobacco, cocaine, marijuana, LSD) | | | | |
| **COURSE AIMS** | | | Learn, types of drug of abuse and dependence, potency of psychologic and physiologic dependence of drugs and action mechanism | | | | |
| **COURSE OBJECTIVES** | | | Learn, types of drug of abuse and dependence | | | | |
| **TEXTBOOK(S)** | | | 1. KAYAALP, S O. (2012); Akılcı Tedavi Yönünden Tıbbi Farmakoloji. | | | | |
| **REFERENCES** | | | 1. CİNGİ, I; EROL, K. (1996); Anadolu Üniversitesi Açık Öğretim Fakültesi Sağlık Personeli Önlisans Eğitimi, Farmakoloji.   1. DÖKMECİ, I. (2007); M.Y. Okulları için Farmakoloji Dersleri. Nobel Tıp Kitapevleri. 2. SÜZER, O. (2005); Farmakolojinin Temelleri.. Nobel Tıp Kitapevleri. 3. GOODMAN AND GİLLMAN‘S (2011). The Pharmacological basis of Therapeutics. 12th edition   5. Basic and Clinical Pharmacology: Bertram G. Katzung,  6. Pharmacology: H.P.Rang, M.M Dale, J.M.Ritter,  7. Lippincott’sPharmacology: Richard Harvey, Pamela Champe,  8.Human Pharmacology, Molecular to Clinical: Brody, Larner, Mınneman. | | | | |

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|  | **COURSE SYLLABUS** | |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | Reinforcement and predisposition in drug dependence |
| 2 |  | Psychologic and physiologic dependence |
| 3 |  | Types of drugs of abuse and dependence, opioids |
| 4 |  | Alcohol |
| 5 |  | Barbiturates |
| 6 |  | Tobacco |
| 7 |  | Mid-term exam |
| 8 |  | Amphetamine |
| 9 |  | Cocaine |
| 10 |  | Marijuana |
| 11 |  | Hallucinogens |
| 12 |  | Khat |
| 13 |  | Inhalants |
| 14 |  | Potency of dependence of drugs |
| 15 |  | Measures of saved drugs dependence |
| 16 |  | Personal evaluation in drug dependence |
| 17 |  | Final exam |

**PROGRAM QUTCOMES**

Place choose never(1), few(2) or many(3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | gather as well as apply knowledge of health sciences |  |  | **X** |
| 2 | ask scientific questions and form hypothesis |  |  | **X** |
| 3 | search and interpret scientific literature |  | **X** |  |
| 4 | design and conduct experiments as well as analyze and interpret the data |  | **X** |  |
| 5 | learn how to use the experimental equipment effectively |  | **X** |  |
| 6 | function on multi-disciplinary teams |  |  | **X** |
| 7 | identify, formulate, and solve medical problems |  |  | **X** |
| 8 | use computer effectively both in conducting the experiments and analyzing the data |  | **X** |  |
| 9 | understand the impact of experimental solutions on national and international sciences |  |  | **X** |
| 10 | use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | get an understanding of professional and ethical responsibility |  |  | **X** |
| 12 | get a recognition of the need for, and an ability to engage in lifelong learning |  |  | **X** |

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| **Instructor Name**  Prof. Dr. Fatma Sultan KILIÇ  **Sign** | **Date**  24.07.2013 |

** ESOGU INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF MEDICAL PHARMACOLOGY**

**COURSE INFORMATION FORM**

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| --- | --- | --- | --- | --- | --- | --- |
| **COURSE CODE:** | **521703203** | | **DEPARTMENT:** MEDICAL PHARMACOLOGY | | | |
| **COURSE NAME:** | PHARMACOKINETICS | |  | | | |
| **INSTRUCTOR NAME**  Asist. Prof. Dr. Mahmut ÖZDEMİR | | **COURSE LANGUAGE**  **Turkish: X**  **English: ** | | **Course Catagory** | | |
| Technical | Medical | Other(……) |
|  | |  | |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **M.SC.** | **Ph.D.** | **COURSE OF PROVINCE** |
| **** | **X** | **** | **** |

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| **SEMESTER** | **WEEKLY COURSE PERIOD** | | | **COURSE OF** | | | |
| **Theoric** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **TYPE** | |
| Spring ****  Autumn **X** | 1 | 4 |  | 3 | 7,5 | COMPULSORY ELECTIVE  **X** | |
|  | | | | | | | |
| **ASSESMENT CRITERIA** | | | | | | | |
| **MID-TERM** | | | **ACTIVITY** | | | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | | | 1 | 50 |
| 2 nd Mid- Term | | |  |  |
| Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other (………) | | |  |  |
| **FINAL** | | | Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other(……written………….) | | | **1** | **50** |
| **MAKE-UP EXAM** | | | Oral | | Written | Oral and Written | Multiple Choice |
|  | |  |  |  |
| **PREREQUISITE(S)** | | |  | | | | |
| **COURSE CONTENT** | | | The course will examine processes of absorbtion, distribution and elimination of drugs as these relate to how rapidly, in what concentration and for how long the drug will appear at the target organ | | | | |
| **COURSE AIMS** | | | To be able to determine the dose of a drug that most closely achives a desired beneficial effect with minimal adverse effects in a selected patient | | | | |
| **COURSE OBJECTIVES** | | | To be able to apply pharmacokinetic principles to achieve improvement in therapeutic efficacy and reduction in toxicity | | | | |
| **TEXTBOOK(S)** | | | 1. Atkinson, Principles of Clinical Pharmacology | | | | |
| **REFERENCES** | | | 1. KAYAALP, S O. (2012); Akılcıl Tedavi Yönünden Tıbbi Farmakoloji. 2. . CİNGİ, I; EROL, K. (1996); Anadolu Üniversitesi Açık Öğretim Fakültesi Sağlık Personeli Önlisans Eğitimi, Farmakoloji.   3. DÖKMECİ, I. (2007); M.Y. Okulları için Farmakoloji Dersleri. Nobel Tıp Kitapevleri.  4. SÜZER, O. (2005); Farmakolojinin Temelleri.. Nobel Tıp Kitapevleri.  5. GOODMAN AND GİLLMAN‘S (2011). The Pharmacological basis of Therapeutics. 12th edition  6. Basic and Clinical Pharmacology: Bertram G. Katzung,  7. Pharmacology: H.P.Rang, M.M Dale, J.M.Ritter,  8. Lippincott’sPharmacology: Richard Harvey, Pamela Champe,  .Human Pharmacology, Molecular toClinical: Brody,Larner,Mınneman. | | | | |

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|  | **COURSE SYLLABUS** | |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | Clinical Pharmacokinetics |
| 2 |  | Clinical Pharmacokinetics |
| 3 |  | Drug absorbtion and bioavalibility |
| 4 |  | Drug absorbtion and bioavalibility |
| 5 |  | Effect of liver disease on pharmacokinetics |
| 6 |  | Effect of liver disease on pharmacokinetics |
| 7 |  | Midterm examination |
| 8 |  | Effect of renal disease on pharmacokinetics |
| 9 |  | Effect of renal disease on pharmacokinetics |
| 10 |  | Pharmacokinetics in patients with renal replacement therapy |
| 11 |  | Population pharmacokinetics |
| 12 |  | Population pharmacokinetics |
| 13 |  | Compartmental analysis of drug distribution |
| 14 |  | Noncompartmental versus compartmental pharmacokinetics |
| 15 |  | Distributed models of drug kinetics |
| 16 |  | Final examination |

**PROGRAM QUTCOMES**

Place choose never(1), few(2) or many(3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | gather as well as apply knowledge of health sciences |  |  | **X** |
| 2 | ask scientific questions and form hypothesis |  | **X** |  |
| 3 | search and interpret scientific literature |  |  | **X** |
| 4 | design and conduct experiments as well as analyze and interpret the data |  |  | **X** |
| 5 | learn how to use the experimental equipment effectively |  | **X** |  |
| 6 | function on multi-disciplinary teams |  | **X** |  |
| 7 | identify, formulate, and solve medical problems |  |  | **X** |
| 8 | use computer effectively both in conducting the experiments and analyzing the data |  |  | **X** |
| 9 | understand the impact of experimental solutions on national and international sciences |  |  | **X** |
| 10 | use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | get an understanding of professional and ethical responsibility |  | **X** |  |
| 12 | get a recognition of the need for, and an ability to engage in lifelong learning |  | **X** |  |

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| **Instructor Name**  Asist. Prof. Dr. Mahmut ÖZDEMİR  **Sign** | **Date**  24.07.2013 |

** ESOGU INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF MEDICAL PHARMACOLOGY**

**COURSE INFORMATION FORM**

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| --- | --- | --- | --- | --- | --- | --- |
| **COURSE CODE:** | **521703204** | | **DEPARTMENT:** MEDICAL PHARMACOLOGY | | | |
| **COURSE NAME:** | EXPERIMENTAL PHARMACOLOGY | |  | | | |
| **INSTRUCTOR NAME**  Prof. Dr. Kevser EROL | | **COURSE LANGUAGE**  **Turkish: X**  **English: ** | | **Course Catagory** | | |
| Technical | Medical | Other(……) |
|  | |  | |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **M.SC.** | **Ph.D.** | **COURSE OF PROVINCE** |
| **** | **X** | **** | **** |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **SEMESTER** | **WEEKLY COURSE PERIOD** | | | **COURSE OF** | | | |
| **Theoric** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **TYPE** | |
| Spring ****  Autumn **X** | 1 | 4 |  | 3 | 7,5 | COMPULSORY ELECTIVE  **X** | |
|  | | | | | | | |
| **ASSESMENT CRITERIA** | | | | | | | |
| **MID-TERM** | | | **ACTIVITY** | | | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | | | 1 | 50 |
| 2 nd Mid- Term | | |  |  |
| Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other (………) | | |  |  |
| **FINAL** | | | Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other(……written………….) | | | **1** | **50** |
| **MAKE-UP EXAM** | | | Oral | | Written | Oral and Written | Multiple Choice |
|  | |  |  |  |
| **PREREQUISITE(S)** | | |  | | | | |
| **COURSE CONTENT** | | | General information about experimental animals,the organization of an experimental pharmacological research,ethical laws, principles of proper laboratory animals, manipulation of animals, routes of drug administration, methods of injection, collection of blood, methods of anesthesia, methods of euthanasia | | | | |
| **COURSE AIMS** | | | To teach the general aspects of technical information and ethical laws about laboratory animal use | | | | |
| **COURSE OBJECTIVES** | | | To be able to realize and plan an experimantal research by using laboratory animals | | | | |
| **TEXTBOOK(S)** | | | Handbook of Laboratory Animal Science, Volume 1, Essential Principles And Practices, Hau J, Van Hooster G. | | | | |
| **REFERENCES** | | | Laboratory manual for General pharmacology, Johnson DL.  Handbook of experimantal pharmacology General Pharmacology, Clark JA  Laboratory Animals in Research and Teaching: Ethics, Care, and Methods, Akins CK.  Guidlines on Handling and Training of Laboratory Animals, Animal Research &Biological Council  Başaran A., Deney Hayvanları,Nisan Kitabevi,Eskişehir. | | | | |

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|  | **COURSE SYLLABUS** | |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | Information of laboratory animals |
| 2 |  | Physiological characteristics and breeding technics of animals |
| 3 |  | Ethical laws |
| 4 |  | Designing an experimental study |
| 5 |  | Manipulation of rodents |
| 6 |  | Injection technics to mice and rats |
| 7 |  | Per oral drug administration technics to mice and rats |
| 8 |  | **Mid term exam** |
| 9 |  | Technics of anesthesia |
| 10 |  | Parenteral drug administration to rabbits |
| 11 |  | Technics of collecting blood |
| 12 |  | Technics of collecting urine |
| 13 |  | Separation technics of serum and plasma |
| 14 |  | Eutanasia of laboratory animals |
| 15 |  | Autopsy of laboratory animals |
| 16 |  | **Final exam** |

**PROGRAM QUTCOMES**

Place choose never(1), few(2) or many(3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | gather as well as apply knowledge of health sciences |  | **X** |  |
| 2 | ask scientific questions and form hypothesis |  | **X** |  |
| 3 | search and interpret scientific literature |  | **X** |  |
| 4 | design and conduct experiments as well as analyze and interpret the data |  |  | **X** |
| 5 | learn how to use the experimental equipment effectively |  |  | **X** |
| 6 | function on multi-disciplinary teams |  |  | **X** |
| 7 | identify, formulate, and solve medical problems |  | **X** |  |
| 8 | use computer effectively both in conducting the experiments and analyzing the data | **X** |  |  |
| 9 | understand the impact of experimental solutions on national and international sciences |  |  | **X** |
| 10 | use effective written and oral communication/presentation skills |  |  | **X** |
| 11 | get an understanding of professional and ethical responsibility |  |  | **X** |
| 12 | get a recognition of the need for, and an ability to engage in lifelong learning |  | **X** |  |

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| **Instructor Name**  Prof. Dr. Kevser EROL  **Sign** | **Date**  24.07.2013 |

** ESOGU INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF MEDICAL PHARMACOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **COURSE CODE:** | **521703205** | | **DEPARTMENT:** MEDICAL PHARMACOLOGY | | | |
| **COURSE NAME:** | TREATMENT OF ACUTE POISONING | |  | | | |
| **INSTRUCTOR NAME**  Assoc. Prof. Dr. Başar SIRMAGUL | | **COURSE LANGUAGE**  **Turkish: X**  **English: ** | | **Course Catagory** | | |
| Technical | Medical | Other(……) |
|  | |  | |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **M.SC.** | **Ph.D.** | **COURSE OF PROVINCE** |
| **** | **X** | **** | **** |

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| **SEMESTER** | **WEEKLY COURSE PERIOD** | | | **COURSE OF** | | | |
| **Theoric** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **TYPE** | |
| Spring ****  Autumn **X** | 3 | 0 |  | 3 | 7,5 | COMPULSORY ELECTIVE  **X** | |
|  | | | | | | | |
| **ASSESMENT CRITERIA** | | | | | | | |
| **MID-TERM** | | | **ACTIVITY** | | | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | | | 1 | 50 |
| 2 nd Mid- Term | | |  |  |
| Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other (………) | | |  |  |
| **FINAL** | | | Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other(……written………….) | | | **1** | **50** |
| **MAKE-UP EXAM** | | | Oral | | Written | Oral and Written | Multiple Choice |
|  | |  |  |  |
| **PREREQUISITE(S)** | | |  | | | | |
| **COURSE CONTENT** | | | To teach the general aspects of acute poisoning diagnostic and treatment strategies. Furthermore, student should have at least some preliminary knowledge of pharmacology and toxicology in areas such as drug abuse, "natural" drugs and "alternative approaches", drugs and society, risk assessment and so on. | | | | |
| **COURSE AIMS** | | |  | | | | |
| **COURSE OBJECTIVES** | | | By the end of this module students will be able to:  1- Identification of poison-spesific measures, especially substances and doses related diagnostic parameters. General assesment and screens , additionally principles of treatment, antidotes. General and systematic toxicology  Drug and chemical poisoning  Toxicological evaluation and risk assessment  Chemical carcinogenesis and teratogenesis.  2- To be able to manage the diagnosis,classification of the effect related compound identity and successful treatment recruiments. | | | | |
| **TEXTBOOK(S)** | | | 1. KAYAALP, S O. (2012); Akılcıl Tedavi Yönünden Tıbbi Farmakoloji.  2. Basic and Clinical Pharmacology: Bertram G. Katzung,  3. Toksikoloji (Akut zehirlenmelerde Tanı ve tedavi) | | | | |
| **REFERENCES** | | | 1. CİNGİ, I; EROL, K. (1996); Anadolu Üniversitesi Açık Öğretim Fakültesi Sağlık Personeli Önlisans Eğitimi, Farmakoloji.  2. DÖKMECİ, I. (2007); M.Y. Okulları için Farmakoloji Dersleri. Nobel Tıp Kitapevleri.  3. SÜZER, O. (2005); Farmakolojinin Temelleri.. Nobel Tıp Kitapevleri.  4. GOODMAN AND GİLLMAN‘S (2011). The Pharmacological basis of Therapeutics. 12th edition  5. Basic and Clinical Pharmacology: Bertram G. Katzung,  6. Pharmacology: H.P.Rang, M.M Dale, J.M.Ritter,  7. Lippincott’sPharmacology: Richard Harvey, Pamela Champe,  8.Human Pharmacology, Molecular toClinical: Brody,Larner,Mınneman. | | | | |

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|  | **COURSE SYLLABUS** | |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | Fundamentals of pharmacology & toxicology, systematic review of all major classes of drugs |
| 2 |  | Definitions; resorption , distribution and depositions of drugs in organisms pharmacodynamics |
| 3 |  | Biotransformations; action of toxins: |
| 4 |  | Toxicokinetics; identification of toxicity; data banks of toxicity; |
| 5 |  | Age related toxicology |
| 6 |  | Accidental Ingestion Of Drugs and Chemicals |
| 7 |  | Monitoring and supportive care |
| 8 |  | **Mid-term Exam** |
| 9 |  | Poisonings and how they are treated |
| 10 |  | Toxic drug interactions |
| 11 |  | Effects on the systems during the poisoning process. |
| 12 |  | Treatment with drugs |
| 13 |  | Poisons and Antidots |
| 14 |  | Mutagenic and teratogenic actions of drugs |
| 15 |  | Organophosphate insecticide toxicology |
| 16 |  | Final Exam |

**PROGRAM QUTCOMES**

Place choose never(1), few(2) or many(3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | gather as well as apply knowledge of health sciences |  | **X** |  |
| 2 | ask scientific questions and form hypothesis |  | **X** |  |
| 3 | search and interpret scientific literature |  | **X** |  |
| 4 | design and conduct experiments as well as analyze and interpret the data |  |  | **X** |
| 5 | learn how to use the experimental equipment effectively |  |  | **X** |
| 6 | function on multi-disciplinary teams |  |  | **X** |
| 7 | identify, formulate, and solve medical problems |  | **X** |  |
| 8 | use computer effectively both in conducting the experiments and analyzing the data | **X** |  |  |
| 9 | understand the impact of experimental solutions on national and international sciences |  |  | **X** |
| 10 | use effective written and oral communication/presentation skills |  |  | **X** |
| 11 | get an understanding of professional and ethical responsibility |  |  | **X** |
| 12 | get a recognition of the need for, and an ability to engage in lifelong learning |  | **X** |  |

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| **Instructor Name**  Assoc.Prof. Dr. Başar SIRMAGÜL  **Sign** | **Date**  24.07.2013 |

** ESOGU INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF MEDICAL PHARMACOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **COURSE CODE:** | **521703206** | | **DEPARTMENT:** MEDICAL PHARMACOLOGY | | | |
| **COURSE NAME:** | COMPUTER USINF IN PHARMACOLOGY | |  | | | |
| **INSTRUCTOR NAME**  Assoc.Prof. Dr. Başar SIRMAGÜL | | **COURSE LANGUAGE**  **Turkish: X**  **English: ** | | **Course Catagory** | | |
| Technical | Medical | Other(……) |
|  | |  | |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **M.SC.** | **Ph.D.** | **COURSE OF PROVINCE** |
| **** | **X** | **** | **** |

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| **SEMESTER** | **WEEKLY COURSE PERIOD** | | | **COURSE OF** | | | |
| **Theoric** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **TYPE** | |
| Spring ****  Autumn **X** | 2 | 2 |  | 3 | 7,5 | COMPULSORY ELECTIVE  **X** | |
|  | | | | | | | |
| **ASSESMENT CRITERIA** | | | | | | | |
| **MID-TERM** | | | **ACTIVITY** | | | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | | | 1 | 50 |
| 2 nd Mid- Term | | |  |  |
| Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other (………) | | |  |  |
| **FINAL** | | | Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other(……written………….) | | | **1** | **50** |
| **MAKE-UP EXAM** | | | Oral | | Written | Oral and Written | Multiple Choice |
|  | |  |  |  |
| **PREREQUISITE(S)** | | |  | | | | |
| **COURSE CONTENT** | | | A variety of computing programs have been developed for undergraduate and postgraduate teaching pharmacology Previous evidence has shown that this innovative  educational technique, either as an adjunct to the traditional teaching methods such as lectures, or as a sole teaching tool for distance education or home studies, facilitates students’ learningand improves overall study outcomes in pharmacology**.** | | | | |
| **COURSE AIMS** | | |  | | | | |
| **COURSE OBJECTIVES** | | | By the end of this module students will be able to:  1- Using a word processor, Using operating system, Using a web browser to view and print content on the web, Use a backup method regularly for important files, Using of the computer for work processing and spread sheet. ·Relational data base . ·Computer security and protection of personal privacy · Statistical calculation in Excel, SPSS.  2- This program provides the individual the necessary computer literacy and desktop computing skills needed to work more productively and efficiently, especially in pharmacological applications. | | | | |
| **TEXTBOOK(S)** | | | Medical Informatics: Computer Applications in Health Care and Biomedicine | | | | |
| **REFERENCES** | | | 1- Medical Informatics: Computer Applications in Health Care and Biomedicine  2- Edward H. Shortliffe ,Lawrence M.Fagan  3- Paket programlar ile istatistiksel veri analizi Prof.Dr.Kazım Özdamar 2004  4- SPSS ile Biyoistatistik, Prof.Dr.Kazım Özdamar 2001  5- Ohrn MA, van Oostrom JH, van Meurs WL. A comparison of traditional textbook and interactive computer learning of neuromuscular block. *Anes Anal* 1997;**84**: 657-61.  6- Timmis S, Brown KN, Gilbert MJ, Gifford L, Lloyd A, Moss SH *et al*. PCALL Review. <http://WWW.coacs.com/pccal/reviews>. May 2000.  7- de Graff JS, de Vos CJ, Steenbergen HJ. Fully automated experiments with isolated organs *in vitro*. *J Pharmacol* *Methods* 1983;**10**:113-35.  8- Goodman and Gillman’s:The Pharmacological Basis of THERAPEUTİCS, eleventh edition, 2006. | | | | |

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|  | **COURSE SYLLABUS** | |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | Introduction to basic concept of computers tech. |
| 2 |  | Windows and structure (hardware-software) |
| 3 |  | Word and Excell application arithmetical operators |
| 4 |  | Data collections |
| 5 |  | Data assessment techniques |
| 6 |  | Medical and pharmacological datas |
| 7 |  | Analoque to Digital coverters for biomedical datas |
| 8 |  | Mid-term exam |
| 9 |  | Pharmacological animations |
| 10 |  | Normal and pathological datas |
| 11 |  | Safety and occuracy |
| 12 |  | Introduction to SPSS |
| 13 |  | Graphs and Excell |
| 14 |  | ANOVA 1 |
| 15 |  | ANOVA 2 |
| 16 |  | Final exam |

**PROGRAM QUTCOMES**

Place choose never(1), few(2) or many(3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | gather as well as apply knowledge of health sciences |  |  | **X** |
| 2 | ask scientific questions and form hypothesis |  |  | **X** |
| 3 | search and interpret scientific literature |  |  | **X** |
| 4 | design and conduct experiments as well as analyze and interpret the data |  |  | **X** |
| 5 | learn how to use the experimental equipment effectively |  | **X** |  |
| 6 | function on multi-disciplinary teams |  | **X** |  |
| 7 | identify, formulate, and solve medical problems |  |  | **X** |
| 8 | use computer effectively both in conducting the experiments and analyzing the data |  |  | **X** |
| 9 | understand the impact of experimental solutions on national and international sciences |  | **X** |  |
| 10 | use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | get an understanding of professional and ethical responsibility |  | **X** |  |
| 12 | get a recognition of the need for, and an ability to engage in lifelong learning |  | **X** |  |

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| --- | --- |
| **Instructor Name**  Assoc.Prof. Dr. Başar SIRMAGÜL  **Sign** | **Date**  24.07.2013 |

** ESOGU INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF MEDICAL PHARMACOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **COURSE CODE:** | **521703207** | | **DEPARTMENT:** MEDICAL PHARMACOLOGY | | | |
| **COURSE NAME:** | GENERAL PHARMACOLOGY | |  | | | |
| **INSTRUCTOR NAME**  Prof. Dr. Fatma Sultan KILIÇ | | **COURSE LANGUAGE**  **Turkish: X**  **English: ** | | **Course Catagory** | | |
| Technical | Medical | Other(……) |
|  | |  | |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **M.SC.** | **Ph.D.** | **COURSE OF PROVINCE** |
| **** | **X** | **** | **** |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **SEMESTER** | **WEEKLY COURSE PERIOD** | | | **COURSE OF** | | | |
| **Theoric** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **TYPE** | |
| Spring ****  Autumn **X** | 3 | 0 |  | 3 | 7,5 | COMPULSORY ELECTIVE  **X** | |
|  | | | | | | | |
| **ASSESMENT CRITERIA** | | | | | | | |
| **MID-TERM** | | | **ACTIVITY** | | | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | | | 1 | 50 |
| 2 nd Mid- Term | | |  |  |
| Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other (………) | | |  |  |
| **FINAL** | | | Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other(……written………….) | | | **1** | **50** |
| **MAKE-UP EXAM** | | | Oral | | Written | Oral and Written | Multiple Choice |
|  | |  |  |  |
| **PREREQUISITE(S)** | | |  | | | | |
| **COURSE CONTENT** | | | The fundamental objective to achieve in the lesson is to learn the basic pharmacological knowledge, as well as the sources, the application ways, the pharmacokinetics, the pharmacodynamics, and the factors altering the effects of drugs | | | | |
| **COURSE AIMS** | | | The fundamental objective to achieve in the lesson is to learn the basic pharmacological knowledge, as well as the sources, the application ways, the pharmacokinetics, the pharmacodynamics, and the factors altering the effects of drugs | | | | |
| **COURSE OBJECTIVES** | | | To learn the basic pharmacological knowledge. To provide suffient knowledge about the effects and advers effects and interactions of drugs which are used in both experimental and in clinical practice. | | | | |
| **TEXTBOOK(S)** | | | 1. KAYAALP, S O. (2012); Akılcı Tedavi Yönünden Tıbbi Farmakoloji. | | | | |
| **REFERENCES** | | | 1. CİNGİ, I; EROL, K. (1996); Anadolu Üniversitesi Açık Öğretim Fakültesi Sağlık Personeli Önlisans Eğitimi, Farmakoloji.  2. DÖKMECİ, I. (2007); M.Y. Okulları için Farmakoloji Dersleri. Nobel Tıp Kitapevleri.  3. SÜZER, O. (2005); Farmakolojinin Temelleri.. Nobel Tıp Kitapevleri.  4. GOODMAN AND GİLLMAN‘S (2011). The Pharmacological basis of Therapeutics. 12th edition  5. Basic and Clinical Pharmacology: Bertram G. Katzung,  6. Pharmacology: H.P.Rang, M.M Dale, J.M.Ritter,  7. Lippincott’sPharmacology: Richard Harvey, Pamela Champe,  8.Human Pharmacology, Molecular to Clinical: Brody, Larner, Mınneman. | | | | |

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|  | **COURSE SYLLABUS** | |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | Introduction to Pharmacology |
| 2 |  | The transition of drugs through biological membranes and absorption |
| 3 |  | The application ways and absorption of drugs from application areas |
| 4 |  | The distribution of drugs |
| 5 |  | The biotransformation of drugs |
| 6 |  | The excretion and elimination kinetics of drugs |
| 7 |  | Midterm exam |
| 8 |  | The Association between dose, concentration and effect |
| 9 |  | Mechanisms of action of drugs |
| 10 |  | Receptors and the Association between drugs and receptors |
| 11 |  | The factors changing the effects of drugs |
| 12 |  | Drug interactions |
| 13 |  | Toxic effects of drugs |
| 14 |  | The methods in drug development |
| 15 |  | Semester exam |

**PROGRAM QUTCOMES**

Place choose never(1), few(2) or many(3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | gather as well as apply knowledge of health sciences |  |  | **X** |
| 2 | ask scientific questions and form hypothesis |  |  | **X** |
| 3 | search and interpret scientific literature |  | **X** |  |
| 4 | design and conduct experiments as well as analyze and interpret the data |  | **X** |  |
| 5 | learn how to use the experimental equipment effectively |  | **X** |  |
| 6 | function on multi-disciplinary teams |  |  | **X** |
| 7 | identify, formulate, and solve medical problems |  |  | **X** |
| 8 | use computer effectively both in conducting the experiments and analyzing the data |  | **X** |  |
| 9 | understand the impact of experimental solutions on national and international sciences |  |  | **X** |
| 10 | use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | get an understanding of professional and ethical responsibility |  |  | **x** |
| 12 | get a recognition of the need for, and an ability to engage in lifelong learning |  |  | **X** |

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| **Instructor Name**  Prof. Dr. Fatma Sultan KILIÇ  **Sign** | **Date**  24.07.2013 |

** ESOGU INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF MEDICAL PHARMACOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **COURSE CODE:** | **521703208** | | **DEPARTMENT:** MEDICAL PHARMACOLOGY | | | |
| **COURSE NAME:** | METHODS OF INSTRUMENTAL ANALYSIS IN PHARMACOLOGY | |  | | | |
| **INSTRUCTOR NAME**  Prof. Dr. Kevser EROL | | **COURSE LANGUAGE**  **Turkish: X**  **English: ** | | **Course Catagory** | | |
| Technical | Medical | Other(……) |
|  | |  | |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **M.SC.** | **Ph.D.** | **COURSE OF PROVINCE** |
| **** | **X** | **** | **** |

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| **SEMESTER** | **WEEKLY COURSE PERIOD** | | | **COURSE OF** | | | |
| **Theoric** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **TYPE** | |
| Spring ****  Autumn **X** | 1 | 2 |  | 2 | 7,5 | COMPULSORY ELECTIVE  **X** | |
|  | | | | | | | |
| **ASSESMENT CRITERIA** | | | | | | | |
| **MID-TERM** | | | **ACTIVITY** | | | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | | | 1 | 50 |
| 2 nd Mid- Term | | |  |  |
| Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other (………) | | |  |  |
| **FINAL** | | | Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other(……written………….) | | | **1** | **50** |
| **MAKE-UP EXAM** | | | Oral | | Written | Oral and Written | Multiple Choice |
|  | |  |  |  |
| **PREREQUISITE(S)** | | |  | | | | |
| **COURSE CONTENT** | | | Basic laboratory methods and basic materials and instruments used in an ordinary hospital laboratory, pH concept and measurement, optical methods,otoanalysors, immunoassay methods, imagination methods and chromatographic methods | | | | |
| **COURSE AIMS** | | | To give the information on basic laboratory methods and the basic operational principles on the instruments commonly used in laboratory. | | | | |
| **COURSE OBJECTIVES** | | | The students would learn the basic principles of laboratory technics used in laboratry, could use rationally the basic instruments and analyse the data after this course. | | | | |
| **TEXTBOOK(S)** | | | Laboratuvar Teknikleri ve Gereçleri (Anadolu Üniversitesi Yayınları No:978)(Açıkalın,E., Cingi M.İ., Erol K., Pütün. E) | | | | |
| **REFERENCES** | | |  | | | | |

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| --- | --- | --- |
|  | **COURSE SYLLABUS** | |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | Microcopy |
| 2 |  | Basic Laboratory Methods and Materials |
| 3 |  | PH Concept and Methods of Measurement |
| 4 |  | Optical Methods,Characteristics of Light, Absorption Laws |
| 5 |  | Colorimetry, Electronic Spectroscopy,Atomic Absorption and Emission Spectroscopy |
| 6 |  | Mid-term exam |
| 7 |  | Turbidimetry and Nefelometry,Refractometry,Polarimetry |
| 8 |  | Otoanalyser |
| 9 |  | Immunoassay Methods (Radioimmunoassay and ELISA) |
| 10 |  | Imagination Methods Ultrasounography,Compuerized Tomography, Magnetic Resonance |
| 11 |  | Chromatographic Methods and Elecrophorezis |
| 12 |  | Final exam |

**PROGRAM QUTCOMES**

Place choose never(1), few(2) or many(3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | gather as well as apply knowledge of health sciences |  |  | **X** |
| 2 | ask scientific questions and form hypothesis |  |  | **X** |
| 3 | search and interpret scientific literature |  | **X** |  |
| 4 | design and conduct experiments as well as analyze and interpret the data |  | **X** |  |
| 5 | learn how to use the experimental equipment effectively |  | **X** |  |
| 6 | function on multi-disciplinary teams |  |  | **X** |
| 7 | identify, formulate, and solve medical problems |  | **X** |  |
| 8 | use computer effectively both in conducting the experiments and analyzing the data |  |  | **X** |
| 9 | understand the impact of experimental solutions on national and international sciences |  | **X** |  |
| 10 | use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | get an understanding of professional and ethical responsibility |  | **X** |  |
| 12 | get a recognition of the need for, and an ability to engage in lifelong learning |  | **X** |  |

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| --- | --- |
| **Instructor Name**  Prof. Dr. Kevser EROL  **Sign** | **Date**  24.07.2013 |

** ESOGU INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF MEDICAL PHARMACOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **COURSE CODE:** | **521704201** | | **DEPARTMENT:** MEDICAL PHARMACOLOGY | | | |
| **COURSE NAME:** | PHARMACOLOGY OF RESPIRATORY SYSTEM | |  | | | |
| **INSTRUCTOR NAME**  Asoc. Prof. Dr. Basar SIRMAGUL | | **COURSE LANGUAGE**  **Turkish: X**  **English: ** | | **Course Catagory** | | |
| Technical | Medical | Other(……) |
|  | |  | |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **M.SC.** | **Ph.D.** | **COURSE OF PROVINCE** |
| **** | **X** | **** | **** |

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| **SEMESTER** | **WEEKLY COURSE PERIOD** | | | **COURSE OF** | | | |
| **Theoric** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **TYPE** | |
| Spring **X**  Autumn **** | 3 | 0 |  | 3 | 7,5 | COMPULSORY ELECTIVE  **X** | |
|  | | | | | | | |
| **ASSESMENT CRITERIA** | | | | | | | |
| **MID-TERM** | | | **ACTIVITY** | | | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | | | 1 | 50 |
| 2 nd Mid- Term | | |  |  |
| Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other (………) | | |  |  |
| **FINAL** | | | Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other(……written………….) | | | **1** | **50** |
| **MAKE-UP EXAM** | | | Oral | | Written | Oral and Written | Multiple Choice |
|  | |  |  |  |
| **PREREQUISITE(S)** | | |  | | | | |
| **COURSE CONTENT** | | | Bronchodilators and other drugs used in the treatment of asthma, antitussive agents, expectorant agents, mucolytic agents, surfactants, oxygen and other medical gases | | | | |
| **COURSE AIMS** | | | Learn, characteristics of drugs used in the treatment of respiratory diseases | | | | |
| **COURSE OBJECTIVES** | | | Learn, drugs used of treatment of asthma and other respiratory diseases | | | | |
| **TEXTBOOK(S)** | | | 1.Kayaalp,S.O.:Tıbbi Farmakoloji,Hacettepe Taş Kitapçılık,10.Baskı,Ankara,2002.  2.Katzung, B.G.:Basic and Clinical Pharmacology, The McGraw-Hill Companies, 2001 | | | | |
| **REFERENCES** | | | 1. Brody,T.M.:Human Pharmacology, Second Edition, 1994. | | | | |

|  |  |  |
| --- | --- | --- |
|  | **COURSE SYLLABUS** | |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | Cough reflex and antitussive agents |
| 2 |  | Expectorant agents |
| 3 |  | Mucolytic agents |
| 4 |  | Surfactants |
| 5 |  | Pathogenesis of asthma |
| 6 |  | Beta-mimetics |
| 7 |  | Corticosteroids |
| 8 |  | Mid-term exam |
| 9 |  | Antimuscarinic agents |
| 10 |  | Theophylline |
| 11 |  | Mast cell stabilizators |
| 12 |  | Leucotrien antagonists |
| 13 |  | Clinical pharmacology of antiasthmatic agents |
| 14 |  | Oxygen and other medical gases |
| 15 |  | Occupational asthma |
| 16 |  | Other Therapies used in asthma |
| 17 |  | Drugs used in asthmatic children |
| 18 |  | Final exam |

**PROGRAM QUTCOMES**

Place choose never(1), few(2) or many(3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | gather as well as apply knowledge of health sciences |  |  | **X** |
| 2 | ask scientific questions and form hypothesis |  |  | **X** |
| 3 | search and interpret scientific literature |  | **X** |  |
| 4 | design and conduct experiments as well as analyze and interpret the data |  | **X** |  |
| 5 | learn how to use the experimental equipment effectively |  | **X** |  |
| 6 | function on multi-disciplinary teams |  |  | **X** |
| 7 | identify, formulate, and solve medical problems |  |  | **X** |
| 8 | use computer effectively both in conducting the experiments and analyzing the data |  | **X** |  |
| 9 | understand the impact of experimental solutions on national and international sciences |  |  | **X** |
| 10 | use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | get an understanding of professional and ethical responsibility |  |  | **X** |
| 12 | get a recognition of the need for, and an ability to engage in lifelong learning |  |  | **X** |

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| **Instructor Name**  Asoc. Prof. Dr. Basar SIRMAGUL  **Sign** | **Date**  24.07.2013 |

** ESOGU INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF MEDICAL PHARMACOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **COURSE CODE:** | **521704202** | | **DEPARTMENT:** MEDICAL PHARMACOLOGY | | | |
| **COURSE NAME:** | PHARMACOLOGY OF GASTROINTESTINAL SYSTEM | |  | | | |
| **INSTRUCTOR NAME**  Asist. Prof. Dr. Engin YILDIRIM | | **COURSE LANGUAGE**  **Turkish: X**  **English: ** | | **Course Catagory** | | |
| Technical | Medical | Other(……) |
|  | |  | |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **M.SC.** | **Ph.D.** | **COURSE OF PROVINCE** |
| **** | **X** | **** | **** |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **SEMESTER** | **WEEKLY COURSE PERIOD** | | | **COURSE OF** | | | |
| **Theoric** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **TYPE** | |
| Spring **X**  Autumn **** | 3 | 0 |  | 3 | 7,5 | COMPULSORY ELECTIVE  **X** | |
|  | | | | | | | |
| **ASSESMENT CRITERIA** | | | | | | | |
| **MID-TERM** | | | **ACTIVITY** | | | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | | | 1 | 50 |
| 2 nd Mid- Term | | |  |  |
| Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other (………) | | |  |  |
| **FINAL** | | | Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other(……written………….) | | | **1** | **50** |
| **MAKE-UP EXAM** | | | Oral | | Written | Oral and Written | Multiple Choice |
|  | |  |  |  |
| **PREREQUISITE(S)** | | |  | | | | |
| **COURSE CONTENT** | | | Agents for treatment of peptic ulcers, laxatives and purgatives, antidiarrheal agents, emetic, antiemetic and prokinetic agents, other agents affecting gastrointestinal tract | | | | |
| **COURSE AIMS** | | | Learn, drugs used in the treatment of gastrointestinal diseases | | | | |
| **COURSE OBJECTIVES** | | | Learn, agents for gastric acidity and peptic ulcers, agents for affecting gastrointestinal water flux and motility, digestans and bile acids | | | | |
| **TEXTBOOK(S)** | | | 1. KAYAALP, S O. (2012); Akılcıl Tedavi Yönünden Tıbbi Farmakoloji. | | | | |
| **REFERENCES** | | | 1. CİNGİ, I; EROL, K. (1996); Anadolu Üniversitesi Açık Öğretim Fakültesi Sağlık Personeli Önlisans Eğitimi, Farmakoloji.  2. DÖKMECİ, I. (2007); M.Y. Okulları için Farmakoloji Dersleri. Nobel Tıp Kitapevleri.  3. SÜZER, O. (2005); Farmakolojinin Temelleri.. Nobel Tıp Kitapevleri.  4. GOODMAN AND GİLLMAN‘S (2011). The Pharmacological basis of Therapeutics. 12th edition  5. Basic and Clinical Pharmacology: Bertram G. Katzung,  6. Pharmacology: H.P.Rang, M.M Dale, J.M.Ritter,  7. Lippincott’sPharmacology: Richard Harvey, Pamela Champe,  8.Human Pharmacology, Molecular toClinical: Brody,Larner,Mınneman. | | | | |

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|  | **COURSE SYLLABUS** | |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | Peptic ulcers |
| 2 |  | Gastric antisecretory drugs |
| 3 |  | Antacids |
| 4 |  | Other drugs (sucralfate, misoprostol, eradication of helicobacter pylorii) |
| 5 |  | Mechanism of ions transports by the small and large intestines |
| 6 |  | Laxatives and purgatives |
| 7 |  | Mid term exam |
| 8 |  | Antidiarrheal agents |
| 9 |  | Oral rehydration therapy |
| 10 |  | Emetic agents |
| 11 |  | Antiemetic and prokinetic agents |
| 12 |  | Treatment of emesis which depend on cancer chemotherapy |
| 13 |  | Digestans |
| 14 |  | Choleretic agents |
| 15 |  | Cholagogue agents |
| 16 |  | Agents for dissolve gallstones |
| 17 |  | Final exam |

**PROGRAM QUTCOMES**

Place choose never(1), few(2) or many(3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | gather as well as apply knowledge of health sciences |  |  | **X** |
| 2 | ask scientific questions and form hypothesis |  |  | **X** |
| 3 | search and interpret scientific literature |  | **X** |  |
| 4 | design and conduct experiments as well as analyze and interpret the data |  | **X** |  |
| 5 | learn how to use the experimental equipment effectively |  | **X** |  |
| 6 | function on multi-disciplinary teams |  |  | **X** |
| 7 | identify, formulate, and solve medical problems |  |  | **X** |
| 8 | use computer effectively both in conducting the experiments and analyzing the data |  | **X** |  |
| 9 | understand the impact of experimental solutions on national and international sciences |  |  | **X** |
| 10 | use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | get an understanding of professional and ethical responsibility |  |  | **X** |
| 12 | get a recognition of the need for, and an ability to engage in lifelong learning |  |  | **X** |

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| **Instructor Name**  Asist. Prof. Dr. Engin YILDIRIM  **Sign** | **Date**  24.07.2013 |

** ESOGU INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF MEDICAL PHARMACOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **COURSE CODE:** | **521704203** | | **DEPARTMENT:** MEDICAL PHARMACOLOGY | | | |
| **COURSE NAME:** | TOXICOLOGY | |  | | | |
| **INSTRUCTOR NAME**  Assoc. Prof. Dr. Basar SIRMAGUL | | **COURSE LANGUAGE**  **Turkish: X**  **English: ** | | **Course Catagory** | | |
| Technical | Medical | Other(……) |
|  | |  | |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **M.SC.** | **Ph.D.** | **COURSE OF PROVINCE** |
| **** | **X** | **** | **** |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **SEMESTER** | **WEEKLY COURSE PERIOD** | | | **COURSE OF** | | | |
| **Theoric** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **TYPE** | |
| Spring **X**  Autumn **** | 3 | 0 |  | 3 | 7,5 | COMPULSORY ELECTIVE  **X** | |
|  | | | | | | | |
| **ASSESMENT CRITERIA** | | | | | | | |
| **MID-TERM** | | | **ACTIVITY** | | | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | | | 1 | 50 |
| 2 nd Mid- Term | | |  |  |
| Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other (………) | | |  |  |
| **FINAL** | | | Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other(……written………….) | | | **1** | **50** |
| **MAKE-UP EXAM** | | | Oral | | Written | Oral and Written | Multiple Choice |
|  | |  |  |  |
| **PREREQUISITE(S)** | | |  | | | | |
| **COURSE CONTENT** | | | Principles of toxicology, air pollutants, insecticides, heavy metals, chelators, treatment of poisoning | | | | |
| **COURSE AIMS** | | | Learn, basics of toxicology, types of toxic drugs, treatment of poisoning | | | | |
| **COURSE OBJECTIVES** | | | By the end of this module students will be able to:  1- Learn principles of toxicology, air pollutants, insecticides, heavy metals, chelators, treatment of poisoning.  2- Learn, the importance of toxicity drug therapy on treatment of poisoning. | | | | |
| **TEXTBOOK(S)** | | | 1. KAYAALP, S O. (2012); Akılcıl Tedavi Yönünden Tıbbi Farmakoloji. | | | | |
| **REFERENCES** | | | 1. CİNGİ, I; EROL, K. (1996); Anadolu Üniversitesi Açık Öğretim Fakültesi Sağlık Personeli Önlisans Eğitimi, Farmakoloji.  2. DÖKMECİ, I. (2007); M.Y. Okulları için Farmakoloji Dersleri. Nobel Tıp Kitapevleri.  3. SÜZER, O. (2005); Farmakolojinin Temelleri.. Nobel Tıp Kitapevleri.  4. GOODMAN AND GİLLMAN‘S (2011). The Pharmacological basis of Therapeutics. 12th edition  5. Basic and Clinical Pharmacology: Bertram G. Katzung,  6. Pharmacology: H.P.Rang, M.M Dale, J.M.Ritter,  7. Lippincott’sPharmacology: Richard Harvey, Pamela Champe,  8.Human Pharmacology, Molecular toClinical: Brody,Larner,Mınneman. | | | | |

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| --- | --- | --- |
|  | **COURSE SYLLABUS** | |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | Principles of toxicology |
| 2 |  | Air pollutants |
| 3 |  | Insecticides; Chlorinated hydrocarbons |
| 4 |  | Organophosphates |
| 5 |  | Botanical insecticides |
| 6 |  | Paraquat |
| 7 |  | Mid-term exam |
| 8 |  | Lead |
| 9 |  | Arsenic |
| 10 |  | Mercury |
| 11 |  | Iron |
| 12 |  | Chelators |
| 13 |  | Drugs used for poisoning |
| 14 |  | The interaction of toxic materials |
| 15 |  | Final exam |

**PROGRAM QUTCOMES**

Place choose never(1), few(2) or many(3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | gather as well as apply knowledge of health sciences |  | **X** |  |
| 2 | ask scientific questions and form hypothesis |  | **X** |  |
| 3 | search and interpret scientific literature |  | **X** |  |
| 4 | design and conduct experiments as well as analyze and interpret the data |  | **X** |  |
| 5 | learn how to use the experimental equipment effectively |  | **X** |  |
| 6 | function on multi-disciplinary teams |  |  | **X** |
| 7 | identify, formulate, and solve medical problems |  |  | **X** |
| 8 | use computer effectively both in conducting the experiments and analyzing the data |  | **X** |  |
| 9 | understand the impact of experimental solutions on national and international sciences |  |  | **X** |
| 10 | use effective written and oral communication/presentation skills |  |  | **X** |
| 11 | get an understanding of professional and ethical responsibility |  |  | **X** |
| 12 | get a recognition of the need for, and an ability to engage in lifelong learning |  |  | **X** |

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| **Instructor Name**  Assoc. Prof. Dr. Basar SIRMAGUL  **Sign** | **Date**  24.07.2013 |

** ESOGU INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF MEDICAL PHARMACOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **COURSE CODE:** | **521704204** | | **DEPARTMENT:** MEDICAL PHARMACOLOGY | | | |
| **COURSE NAME:** | TRANSMISSION MECHANISM IN NERVOUS SYSTEM | |  | | | |
| **INSTRUCTOR NAME**  Prof. Dr. Kevser EROL | | **COURSE LANGUAGE**  **Turkish: X**  **English: ** | | **Course Catagory** | | |
| Technical | Medical | Other(……) |
|  | |  | |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **M.SC.** | **Ph.D.** | **COURSE OF PROVINCE** |
| **** | **X** | **** | **** |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **SEMESTER** | **WEEKLY COURSE PERIOD** | | | **COURSE OF** | | | |
| **Theoric** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **TYPE** | |
| Spring **X**  Autumn **** | 3 | 0 |  | 3 | 7,5 | COMPULSORY ELECTIVE | |
|  | | | | | | | |
| **ASSESMENT CRITERIA** | | | | | | | |
| **MID-TERM** | | | **ACTIVITY** | | | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | | | 1 | 50 |
| 2 nd Mid- Term | | |  |  |
| Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other (………) | | |  |  |
| **FINAL** | | | Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other(……written………….) | | | **1** | **50** |
| **MAKE-UP EXAM** | | | Oral | | Written | Oral and Written | Multiple Choice |
|  | |  |  |  |
| **PREREQUISITE(S)** | | |  | | | | |
| **COURSE CONTENT** | | | History of neurotransmission concept, aspect of neurohumoral transmission,synthesis, biotransformation and elimination of neurotransmitters,cholinergic transmission, cholinergic receptors, adrenergic transmission, adrenergic receptors,relationship between the nervous and endocrine systems | | | | |
| **COURSE AIMS** | | | To teach the general mechanisms of neurohumoral transmission | | | | |
| **COURSE OBJECTIVES** | | | By the end of this module students will be able to:  1- Lear history of neurotransmission concept, aspect of neurohumoral transmission,synthesis, biotransformation and elimination of neurotransmitters, cholinergic transmission, cholinergic receptors, adrenergic transmission, adrenergic receptors, relationship between the nervous and endocrine systems.  2- To be able to realize the neurohumoral transmission**.** | | | | |
| **TEXTBOOK(S)** | | | 1. KAYAALP, S O. (2012); Akılcıl Tedavi Yönünden Tıbbi Farmakoloji. | | | | |
| **REFERENCES** | | | 1.Hardman JG, Limbird LE, Gilman AG, The Pharmacological Basis of Therapeutics,McGraw-Hill, New York, (10th ed.)2001.  2. Katzung BG,Basic and Clinical Pharmacology, ,McGraw-Hill, New York (7th ed.)2001.  3.Brody TM, Larner J, Minneman KP, Human Pharmacology Molecular to Clinical Mosby, Boston, (3 th ed.) 1998.  4.Rang HP, Dale MM, Ritter JM, Pharmacology, Churchill Livingstone, Edinburgh, (3th ed.)1995. | | | | |

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| --- | --- | --- |
|  | **COURSE SYLLABUS** | |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | History |
| 2 |  | Concept of neuroregulateur (Neurotransmitter, neuromodulator, neurohormon) |
| 3 |  | Synthesis, biotransformation and elimination of acetylcholine |
| 4 |  | Cholinergic receptors |
| 5 |  | Synthesis, biotransformation and elimination of catecholamines |
| 6 |  | Adrenergic receptors |
| 7 |  | Cotransmitters |
| 8 |  | **Mid term exam** |
| 9 |  | Cholinergic transmission |
| 10 |  | Adrenergic transmission |
| 11 |  | Enteric nervous system |
| 12 |  | Nerotransmission of somatic motor nervous system |
| 13 |  | Signal transduction systems |
| 14 |  | Relationship between the nervous and endocrine systems |
| 15 |  | Relationship between the nervous and endocrine systems |
| 16 |  | **Final exam** |

**PROGRAM QUTCOMES**

Place choose never(1), few(2) or many(3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | gather as well as apply knowledge of health sciences |  |  | **X** |
| 2 | ask scientific questions and form hypothesis |  |  | **X** |
| 3 | search and interpret scientific literature |  |  | **X** |
| 4 | design and conduct experiments as well as analyze and interpret the data |  |  | **X** |
| 5 | learn how to use the experimental equipment effectively |  | **X** |  |
| 6 | function on multi-disciplinary teams |  |  | **X** |
| 7 | identify, formulate, and solve medical problems |  | **X** |  |
| 8 | use computer effectively both in conducting the experiments and analyzing the data |  | **X** |  |
| 9 | understand the impact of experimental solutions on national and international sciences |  |  | **X** |
| 10 | use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | get an understanding of professional and ethical responsibility |  |  | **X** |
| 12 | get a recognitio of the need for, and an ability to engage in lifelong learning |  |  | **X** |

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| **Instructor Name**  Prof. Dr. Kevser EROL  **Sign** | **Date**  24.07.2013 |

** ESOGU INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF MEDICAL PHARMACOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **COURSE CODE:** | **521704206** | | **DEPARTMENT:** MEDICAL PHARMACOLOGY | | | |
| **COURSE NAME:** | THE PRINCIPLES OF DRUG ACTIONS | |  | | | |
| **INSTRUCTOR NAME**  Prof. Dr. Fatma Sultan KILIÇ | | **COURSE LANGUAGE**  **Turkish: X**  **English: ** | | **Course Catagory** | | |
| Technical | Medical | Other(……) |
|  | |  | |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **M.SC.** | **Ph.D.** | **COURSE OF PROVINCE** |
| **** | **X** | **** | **** |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **SEMESTER** | **WEEKLY COURSE PERIOD** | | | **COURSE OF** | | | |
| **Theoric** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **TYPE** | |
| Spring **X**  Autumn **** | 3 | 0 |  | 3 | 7,5 | COMPULSORY ELECTIVE  **X** | |
|  | | | | | | | |
| **ASSESMENT CRITERIA** | | | | | | | |
| **MID-TERM** | | | **ACTIVITY** | | | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | | | 1 | 50 |
| 2 nd Mid- Term | | |  |  |
| Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other (………) | | |  |  |
| **FINAL** | | | Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other(……written………….) | | | **1** | **50** |
| **MAKE-UP EXAM** | | | Oral | | Written | Oral and Written | Multiple Choice |
|  | |  |  |  |
| **PREREQUISITE(S)** | | |  | | | | |
| **COURSE CONTENT** | | | Drugs exhibit their effects in different ways. To inform that drugs show their effects via enzymes, membrane neurotransmitters, transmembranal active transport systems, ion channels and by chelating, or acting as antimetabolites or substituting inadequate substance in the body. | | | | |
| **COURSE AIMS** | | | To give information on the effects of drugs | | | | |
| **COURSE OBJECTIVES** | | | To classify the mechanisms of actions of drugs | | | | |
| **TEXTBOOK(S)** | | | 1. KAYAALP, S O. (2012); Akılcı Tedavi Yönünden Tıbbi Farmakoloji. | | | | |
| **REFERENCES** | | | 1. CİNGİ, I; EROL, K. (1996); Anadolu Üniversitesi Açık Öğretim Fakültesi Sağlık Personeli Önlisans Eğitimi, Farmakoloji.  2. DÖKMECİ, I. (2007); M.Y. Okulları için Farmakoloji Dersleri. Nobel Tıp Kitapevleri.  3. SÜZER, O. (2005); Farmakolojinin Temelleri.. Nobel Tıp Kitapevleri.  4. GOODMAN AND GİLLMAN‘S (2011). The Pharmacological basis of Therapeutics. 12th edition  5. Basic and Clinical Pharmacology: Bertram G. Katzung,  6. Pharmacology: H.P.Rang, M.M Dale, J.M.Ritter,  7. Lippincott’sPharmacology: Richard Harvey, Pamela Champe,  8.Human Pharmacology, Molecular to Clinical: Brody, Larner, Mınneman. | | | | |

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|  | **COURSE SYLLABUS** | |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | The effects of neuromediators on mechanism |
| 2 |  | The effects of neuromediators on mechanism |
| 3 |  | The effects of drugs related to their physical and chemical structures |
| 4 |  | The effects of drugs by enzyme ihibition or activation |
| 5 |  | The effects of drugs by acting as antimetabolites |
| 6 |  | Midterm exam |
| 7 |  | The effects of drugs by inhibiting or activating transmembranal active transport systems |
| 8 |  | The ion channel modulatory effects of drugs in exitabl cells |
| 9 |  | The substituting effects of drugs for inadequate substances in the body |
| 10 |  | The inducing or inhibiting effects of drugs on inactive substances in the body |
| 11 |  | The chelating effects of drugs |
| 12 |  | Final exam |
| 13 |  |  |
| 14 |  |  |
| 15 |  |  |
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**PROGRAM QUTCOMES**

Place choose never(1), few(2) or many(3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | gather as well as apply knowledge of health sciences |  |  | **X** |
| 2 | ask scientific questions and form hypothesis |  |  | **X** |
| 3 | search and interpret scientific literature |  |  | **X** |
| 4 | design and conduct experiments as well as analyze and interpret the data |  |  | **X** |
| 5 | learn how to use the experimental equipment effectively |  | **X** |  |
| 6 | function on multi-disciplinary teams |  |  | **X** |
| 7 | identify, formulate, and solve medical problems |  | **X** |  |
| 8 | use computer effectively both in conducting the experiments and analyzing the data |  | **X** |  |
| 9 | understand the impact of experimental solutions on national and international sciences |  |  | **X** |
| 10 | use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | get an understanding of professional and ethical responsibility |  |  | **X** |
| 12 | get a recognition of the need for, and an ability to engage in lifelong learning |  |  | **X** |

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| **Instructor Name**  Prof. Dr. Fatma Sultan KILIÇ  **Sign** | **Date**  24.07.2013 |

** ESOGU INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF MEDICAL PHARMACOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **COURSE CODE:** | **521704205** | | **DEPARTMENT:** MEDICAL PHARMACOLOGY | | | |
| **COURSE NAME:** | CLINICAL PHARMACOLOGY | |  | | | |
| **INSTRUCTOR NAME**  Ass. Prof. Dr. Mahmut ÖZDEMIR | | **COURSE LANGUAGE**  **Turkish: X**  **English: ** | | **Course Catagory** | | |
| Technical | Medical | Other(……) |
|  | |  | |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **M.SC.** | **Ph.D.** | **COURSE OF PROVINCE** |
| **** | **X** | **** | **** |

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| **SEMESTER** | **WEEKLY COURSE PERIOD** | | | **COURSE OF** | | | |
| **Theoric** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **TYPE** | |
| Spring **X**  Autumn **** | 2 | 2 |  | 3 | 7,5 | COMPULSORY ELECTIVE  **X** | |
|  | | | | | | | |
| **ASSESMENT CRITERIA** | | | | | | | |
| **MID-TERM** | | | **ACTIVITY** | | | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | | | 1 | 50 |
| 2 nd Mid- Term | | |  |  |
| Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other (………) | | |  |  |
| **FINAL** | | | Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other(……written………….) | | | **1** | **50** |
| **MAKE-UP EXAM** | | | Oral | | Written | Oral and Written | Multiple Choice |
|  | |  |  |  |
| **PREREQUISITE(S)** | | |  | | | | |
| **COURSE CONTENT** | | | Pharmacodynamics, pharmacokinetics, therapeutic evaluation, rational prescribing, official regulation of medicines social aspects like that pharmacoeconomics.Good clinical practise. | | | | |
| **COURSE AIMS** | | | Its objective is to optimise drug therapy and it is justified in so far as it is of practical using. | | | | |
| **COURSE OBJECTIVES** | | | Rational , safe and effective drug therapy. Drug therapy of individual diseases.  İn use of drug,adverse reactions, ethical applications, new drug development and evaluation. | | | | |
| **TEXTBOOK(S)** | | | 1. KAYAALP, S O. (2012); Akılcıl Tedavi Yönünden Tıbbi Farmakoloji. | | | | |
| **REFERENCES** | | | 1.Hardman JG, Limbird LE, Gilman AG, The Pharmacological Basis of Therapeutics,McGraw-Hill, New York, (10th ed.)2001.  2. Katzung BG,Basic and Clinical Pharmacology, ,McGraw-Hill, New York (7th ed.)2001.  3.Brody TM, Larner J, Minneman KP, Human Pharmacology Molecular to Clinical Mosby, Boston, (3 th ed.) 1998.  4.Rang HP, Dale MM, Ritter JM, Pharmacology, Churchill Livingstone, Edinburgh, (3th ed.)1995. | | | | |

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|  | **COURSE SYLLABUS** | |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | Discovery and developments of drugs |
| 2 |  | Preclinical studies in animals |
| 3 |  | Ethics |
| 4 |  | Pharmacological tests |
| 5 |  | Experimental therapeutics |
| 6 |  | Ethics of research in man |
| 7 |  | New drug ( ethical conduct of clinical research) |
| 8 |  | Phases of clinical development |
| 9 |  | **Exam** |
| 10 |  | Official regulatory guidelines and requırements |
| 11 |  | Therapeutic evaluation |
| 12 |  | Statistics |
| 13 |  | Therapeutic trials |
| 14 |  | Double blind-single blind etc. techniques |
| 15 |  | Meta analysis and pharmacoepidemiology |
| 16 |  | **Final exam** |

**PROGRAM QUTCOMES**

Place choose never(1), few(2) or many(3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | gather as well as apply knowledge of health sciences |  |  | **X** |
| 2 | ask scientific questions and form hypothesis |  |  | **X** |
| 3 | search and interpret scientific literature |  |  | **X** |
| 4 | design and conduct experiments as well as analyze and interpret the data |  | **X** |  |
| 5 | learn how to use the experimental equipment effectively |  | **X** |  |
| 6 | function on multi-disciplinary teams |  |  | **X** |
| 7 | identify, formulate, and solve medical problems |  |  | **X** |
| 8 | use computer effectively both in conducting the experiments and analyzing the data |  |  | **X** |
| 9 | understand the impact of experimental solutions on national and international sciences |  | **X** |  |
| 10 | use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | get an understanding of professional and ethical responsibility |  |  | **X** |
| 12 | get a recognition of the need for, and an ability to engage in lifelong learning |  | **X** |  |

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| **Instructor Name**  Ass. Prof. Dr. Mahmut ÖZDEMIR  **Sign** | **Date**  24.07.2013 |

** ESOGU INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF MEDICAL PHARMACOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **COURSE CODE:** | **521704207** | | **DEPARTMENT:** MEDICAL PHARMACOLOGY | | | |
| **COURSE NAME:** | THERAPEUTIC DRUG MONITORING (TDM) | |  | | | |
| **INSTRUCTOR NAME**  Assoc. Prof. Dr. Basar SIRMAGUL | | **COURSE LANGUAGE**  **Turkish: X**  **English: ** | | **Course Catagory** | | |
| Technical | Medical | Other(……) |
|  | |  | |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **M.SC.** | **Ph.D.** | **COURSE OF PROVINCE** |
| **** | **X** | **** | **** |

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| **SEMESTER** | **WEEKLY COURSE PERIOD** | | | | **COURSE OF** | | | |
| **Theoric** | **Practice** | | **Laboratory** | **Credit** | **ECTS** | **TYPE** | |
| Spring **X**  Autumn **** | 3 | 0 | |  | 3 | 7,5 | COMPULSORY ELECTIVE  **X** | |
|  | | | | | | | | |
| **ASSESMENT CRITERIA** | | | | | | | | |
| **MID-TERM** | | | | **ACTIVITY** | | | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | | | 1 | 50 |
| 2 nd Mid- Term | | |  |  |
| Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other (………) | | |  |  |
| **FINAL** | | | | Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other(……written………….) | | | **1** | **50** |
| **MAKE-UP EXAM** | | | | Oral | | Written | Oral and Written | Multiple Choice |
|  | |  |  |  |
| **PREREQUISITE(S)** | | | |  | | | | |
| **COURSE CONTENT** | | | | Theoretical and practical information about fundamentals of therapeutic drug monitoring and drug analysis methods | | | | |
| **COURSE AIMS** | | | | Learn beasic principles of therapeutic drug monitoring | | | | |
| **COURSE OBJECTIVES** | | | |  | | | | |
| **TEXTBOOK(S)** | | | | KAYAALP, S O. (2012); Akılcıl Tedavi Yönünden Tıbbi Farmakoloji | | | | |
| **REFERENCES** | | | | 1. CİNGİ, I; EROL, K. (1996); Anadolu Üniversitesi Açık Öğretim Fakültesi Sağlık Personeli Önlisans Eğitimi, Farmakoloji.  2. DÖKMECİ, I. (2007); M.Y. Okulları için Farmakoloji Dersleri. Nobel Tıp Kitapevleri.  3. SÜZER, O. (2005); Farmakolojinin Temelleri.. Nobel Tıp Kitapevleri.  4. GOODMAN AND GİLLMAN‘S (2011). The Pharmacological basis of Therapeutics. 12th edition  5. Basic and Clinical Pharmacology: Bertram G. Katzung,  6. Pharmacology: H.P.Rang, M.M Dale, J.M.Ritter,  7. Lippincott’sPharmacology: Richard Harvey, Pamela Champe,  8.Human Pharmacology, Molecular toClinical: Brody,Larner,Mınneman. | | | | |
|  | **COURSE SYLLABUS** | | | | | | | |
| **WEEK** | **DATE** | | **SUBJECTS/TOPICS** | | | | | |
| 1 |  | | Fundamentals of therapeutic drug monitoring | | | | | |
| 2 |  | | Why TDM is necessary? The features and samples of drugs that are monitored | | | | | |
| 3 |  | | TDM basics | | | | | |
| 4 |  | | TDM methods for blood samples | | | | | |
| 5 |  | | FDA and EMA regulations for TDM | | | | | |
| 6 |  | | Criteria and features of commonly monitored drugs | | | | | |
| 7 |  | | The importance of TDM | | | | | |
| 8 |  | | Pharmacokinetic parameters and applications in TDM | | | | | |
| 9 |  | | Collection, manipulation and storage of data for nTDM | | | | | |
| 10 |  | | Methods used in TDM | | | | | |
| 11 |  | | The interpretations of the results | | | | | |
| 12 |  | | FINAL EXAM | | | | | |
| 13 |  | |  | | | | | |
| 14 |  | |  | | | | | |
| 15 |  | |  | | | | | |
| 16 |  | |  | | | | | |

**PROGRAM QUTCOMES**

Place choose never(1), few(2) or many(3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | gather as well as apply knowledge of health sciences |  |  | **X** |
| 2 | ask scientific questions and form hypothesis |  |  | **X** |
| 3 | search and interpret scientific literature |  |  | **X** |
| 4 | design and conduct experiments as well as analyze and interpret the data |  | **X** |  |
| 5 | learn how to use the experimental equipment effectively |  | **X** |  |
| 6 | function on multi-disciplinary teams |  |  | **X** |
| 7 | identify, formulate, and solve medical problems |  |  | **X** |
| 8 | use computer effectively both in conducting the experiments and analyzing the data |  |  | **X** |
| 9 | understand the impact of experimental solutions on national and international sciences |  | **X** |  |
| 10 | use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | get an understanding of professional and ethical responsibility |  |  | **X** |
| 12 | get a recognition of the need for, and an ability to engage in lifelong learning |  | **X** |  |

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| **Instructor Name**  Assoc. Prof. Dr. Basar SIRMAGUL  **Sign** | **Date**  24.07.2013 |

** ESOGU INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF MEDICAL PHARMACOLOGY**

**COURSE INFORMATION FORM**

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| --- | --- | --- | --- | --- | --- | --- |
| **COURSE CODE:** | **521704208** | | **DEPARTMENT:** MEDICAL PHARMACOLOGY | | | |
| **COURSE NAME:** | RATIONAL DRUG USE | |  | | | |
| **INSTRUCTOR NAME**  Prof. Dr. Kevser EROL  Prof. Dr. Fatma Sultan KILIC | | **COURSE LANGUAGE**  **Turkish: X**  **English: ** | | **Course Catagory** | | |
| Technical | Medical | Other(……) |
|  | |  | |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **M.SC.** | **Ph.D.** | **COURSE OF PROVINCE** |
| **** | **X** |  | **** |

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| **SEMESTER** | **WEEKLY COURSE PERIOD** | | | **COURSE OF** | | | |
| **Theoric** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **TYPE** | |
| Spring **X**  Autumn **** | 2 | 0 |  | 2 | 7,5 | COMPULSORY ELECTIVE  **X** | |
|  | | | | | | | |
| **ASSESMENT CRITERIA** | | | | | | | |
| **MID-TERM** | | | **ACTIVITY** | | | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | | | 1 | 50 |
| 2 nd Mid- Term | | |  |  |
| Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other (………) | | |  |  |
| **FINAL** | | | Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other(……written………….) | | | **1** | **50** |
| **MAKE-UP EXAM** | | | Oral | | Written | Oral and Written | Multiple Choice |
|  | |  |  |  |
| **PREREQUISITE(S)** | | |  | | | | |
| **COURSE CONTENT** | | | Recently, the use of medicines is considered to be very important. By hearing the drug names from each other, individuals can easily provide the medicines from pharmacies and use them. In addition, according to the principles of rational medicine use, it is necessary to choose the right medicine for the right patient. Patients shpould receive medications appropriate to their clinical needs, in doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them and their community. It is required to raise the knowledge and awareness for the rational drug use. | | | | |
| **COURSE AIMS** | | | To provide awareness about the principles which are considered as important for the medication use | | | | |
| **COURSE OBJECTIVES** | | | To provide awareness about the efficacy, safety, adequacy and cost of medicines | | | | |
| **TEXTBOOK(S)** | | | 1. KAYAALP, S O. (2012); Akılcıl Tedavi Yönünden Tıbbi Farmakoloji. | | | | |
| **REFERENCES** | | | 1. CİNGİ, I; EROL, K. (1996); Anadolu Üniversitesi Açık Öğretim Fakültesi Sağlık Personeli Önlisans Eğitimi, Farmakoloji.  2. SÜZER, O. (2005); Farmakolojinin Temelleri.. Nobel Tıp Kitapevleri.  3. GOODMAN AND GİLLMAN‘S (2011). The Pharmacological basis of Therapeutics. 12th edition  4. Basic and Clinical Pharmacology: Bertram G. Katzung,  5. Pharmacology: H.P.Rang, M.M Dale, J.M.Ritter,  6. Lippincott’sPharmacology: Richard Harvey, Pamela Champe,  7.Human Pharmacology, Molecular to Clinical: Brody, Larner, Mınneman.  8. Hardman JG, Limbird LE, Gilman AG, The Pharmacological Basis of Therapeutics, McGraw-Hill, New York  9.Rang HP, Dale MM, Ritter JM, Pharmacology, Churchill Livingstone, Edinburgh, (3th ed.)1995.  10. Lüllmann H, Mohr K, Ziegler A.Atlas de Poche de Pharmacologie, Medecine- Sciences Flammarion, Paris (2.baskı), 1996  11. Taner D. Fonksiyonel Nöroanatomi,METU press | | | | |

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|  | **COURSE SYLLABUS** | |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | Introduction, |
| 2 |  | The importance of drug efficacy 1, |
| 3 |  | The importance of drug efficacy 2, |
| 4 |  | The importance of drug safety 1 |
| 5 |  | The importance of drug safety 2, |
| 6 |  | The importance of drug adequacy 1, |
| 7 |  | The importance of drug adequacy 2, |
| 8 |  | **Mid term exam** |
| 9 |  | The importance of drug cost 1 |
| 10 |  | The importance of drug cost 2 |
| 11 |  | The principles of drug use 1 |
| 12 |  | The principles of drug use 1 |
| 13 |  | The importance of pharmaceutical preparations in medical treatment |
| 14 |  | The importance of drug-drug interactions |
| 15 |  | The importance of drug-nutrient interactions |
| 16 |  | **Final exam** |

**PROGRAM QUTCOMES**

Place choose never(1), few(2) or many(3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | gather as well as apply knowledge of health sciences |  |  | **X** |
| 2 | ask scientific questions and form hypothesis |  |  | **X** |
| 3 | search and interpret scientific literature |  |  | **X** |
| 4 | design and conduct experiments as well as analyze and interpret the data |  |  | **X** |
| 5 | learn how to use the experimental equipment effectively |  | **X** |  |
| 6 | function on multi-disciplinary teams |  |  | **X** |
| 7 | identify, formulate, and solve medical problems |  | **X** |  |
| 8 | use computer effectively both in conducting the experiments and analyzing the data |  | **X** |  |
| 9 | understand the impact of experimental solutions on national and international sciences |  |  | **X** |
| 10 | use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | get an understanding of professional and ethical responsibility |  |  | **X** |
| 12 | get a recognition of the need for, and an ability to engage in lifelong learning |  |  | **X** |

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| **Instructor Name**  Prof. Dr. Kevser EROL  Prof. Dr. Fatma Sultan KILIÇ | **Date**  30-3-2015 |

** ESOGU INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF MEDICAL PHARMACOLOGY**

**COURSE INFORMATION FORM**

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| --- | --- | --- | --- | --- | --- | --- |
| **COURSE CODE:** | **521704209** | | **DEPARTMENT: MEDICAL PHARMACOLOGY** | | | |
| **COURSE NAME:** | **PHARMACOLOGICAL BASIS OF DIABETES MELLITUS** | |  | | | |
| **INSTRUCTOR NAME**  Ass. Prof. Dr. Semra YİĞİTASLAN | | **COURSE LANGUAGE**  **Turkish: X**  **English:** | | **Course Catagory** | | |
| Technical | Medical | Other(……) |
|  | |  | |  | **X** |  |
|  |  |  |  |  |  |  |

**COURSE LEVEL**

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| **PROPAEDEUTIC** | **M.SC.** | **Ph.D.** | **COURSE OF PROVINCE** |
|  | **X** |  |  |

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| **SEMESTER** | **WEEKLY COURSE PERIOD** | | | **COURSE OF** | | | |
| **Theoric** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **TYPE** | |
| Spring **X**  Autumn | 2 | 0 |  | 2 | 7,5 | COMPULSORY ELECTIVE | |
|  | | | | | | | |
| **ASSESMENT CRITERIA** | | | | | | | |
| **MID-TERM** | | | **ACTIVITY** | | | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | | | 1 | 50 |
| 2 nd Mid- Term | | |  |  |
| Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other (………) | | |  |  |
| **FINAL** | | | Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other(……written………….) | | | **1** | **50** |
| **MAKE-UP EXAM** | | | Oral | | Written | Oral and Written | Multiple Choice |
|  | | **X** |  |  |
| **PREREQUISITE(S)** | | |  | | | | |
| **COURSE CONTENT** | | | Basic concepts and treatment of diabetes mellitus  Experimental diabetes models  The complications of diabetes and experimental models of diabetic neuropathy, nephropathy and retinopathy | | | | |
| **COURSE AIMS** | | | The main objectives of the course are to identify the basic concepts, treatment and complications of diabetes mellitus, to explain animal models for experimental diabetes studies and comparing experimental diabetes models in order to understand the principles of choosing an appropriate animal model for a diabetes research | | | | |
| **COURSE OBJECTIVES** | | | By the end of this module students will be able to:  1- explain the treatment principles, complications and experimental models of diabetes mellitus.  2- choose an appropriate animal model for a diabetes research | | | | |
| **TEXTBOOK(S)** | | | 1. KAYAALP, S O. (2012); Akılcıl Tedavi Yönünden Tıbbi Farmakoloji.  2. Basic and Clinical Pharmacology: Bertram G. Katzung,  3. Toksikoloji (Akut zehirlenmelerde Tanı ve tedavi) | | | | |
| **REFERENCES** | | | 1. CİNGİ, I; EROL, K. (1996); Anadolu Üniversitesi Açık Öğretim Fakültesi Sağlık Personeli Önlisans Eğitimi, Farmakoloji.  2. DÖKMECİ, I. (2007); M.Y. Okulları için Farmakoloji Dersleri. Nobel Tıp Kitapevleri.  3. SÜZER, O. (2005); Farmakolojinin Temelleri.. Nobel Tıp Kitapevleri.  4. GOODMAN AND GİLLMAN‘S (2011). The Pharmacological basis of Therapeutics. 12th edition  5. Basic and Clinical Pharmacology: Bertram G. Katzung,  6. Pharmacology: H.P.Rang, M.M Dale, J.M.Ritter,  7. Lippincott’sPharmacology: Richard Harvey, Pamela Champe,  8.Human Pharmacology, Molecular toClinical: Brody,Larner,Mınneman. | | | | |

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|  | **COURSE SYLLABUS** | |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | Epidemiology and pathophysiology of diabetes mellitus |
| 2 |  | Treatment of diabetes mellitus |
| 3 |  | The pathophysiology of diabetic complications |
| 4 |  | Chemically induced type I DM |
| 5 |  | Spontaneous autoimmune and genetically induced type I DM |
| 6 |  | Obese models of type II DM |
| 7 |  | High fat feeding type II DM |
| 8 |  | **Mid-term Exam** |
| 9 |  | Nonrodent models of type I and II diabetes mellitus |
| 10 |  | Knock-out and transgenic mice in diabetes research |
| 11 |  | Role of glycation and advanced glycation end-products (AGEs) in the pathogenesis of diabetic complications. |
| 12 |  | Oxidative stress and abnormal lipid metabolism in diabetes research |
| 13 |  | Diabetic neuropathy models |
| 14 |  | Diabetic nephropathy models |
| 15 |  | Diabetic retinopathy models |
| 16 |  | **Final Exam** |

**PROGRAM QUTCOMES**

Place choose never(1), few(2) or many(3) regarding your course

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **NO** |  | **1** | **2** | **3** |
| 1 | gather as well as apply knowledge of health sciences |  | **X** |  |
| 2 | ask scientific questions and form hypothesis |  | **X** |  |
| 3 | search and interpret scientific literature |  | **X** |  |
| 4 | design and conduct experiments as well as analyze and interpret the data |  |  | **X** |
| 5 | learn how to use the experimental equipment effectively |  |  | **X** |
| 6 | function on multi-disciplinary teams |  |  | **X** |
| 7 | identify, formulate, and solve medical problems |  | **X** |  |
| 8 | use computer effectively both in conducting the experiments and analyzing the data |  | **X** |  |
| 9 | understand the impact of experimental solutions on national and international sciences |  |  | **X** |
| 10 | use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | get an understanding of professional and ethical responsibility |  | **X** |  |
| 12 | get a recognition of the need for, and an ability to engage in lifelong learning | **X** |  |  |

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| **Instructor Name**  Ass. Prof. Dr. Semra YİĞİTASLAN  **Sign** | **Date**  16/11/2016 |

** ESOGU INSTITUTE OF HEALTH SCIENCE**

**DEPARTMENT OF MEDICAL PHARMACOLOGY**

**COURSE INFORMATION FORM**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **COURSE CODE:** | **521704210** | | **DEPARTMENT: MEDICAL PHARMACOLOGY** | | | |
| **COURSE NAME:** | **PHARMACOLOGICAL PRINCIPLES OF INFLAMMATION** | |  | | | |
| **INSTRUCTOR NAME**  Assist. Prof. Dr. Bilgin KAYGISIZ | | **COURSE LANGUAGE**  **Turkish: X**  **English: ** | | **Course Catagory** | | |
| Technical | Medical | Other(……) |
|  | |  | |  | **X** |  |

**COURSE LEVEL**

|  |  |  |  |
| --- | --- | --- | --- |
| **PROPAEDEUTIC** | **M.SC.** | **Ph.D.** | **COURSE OF PROVINCE** |
| **** | **X** | **** | **** |

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **SEMESTER** | **WEEKLY COURSE PERIOD** | | | **COURSE OF** | | | |
| **Theoric** | **Practice** | **Laboratory** | **Credit** | **ECTS** | **TYPE** | |
| Spring **X**  Autumn | 2 | 0 |  | 2 | 7,5 | COMPULSORY ELECTIVE  **** | |
|  | | | | | | | |
| **ASSESMENT CRITERIA** | | | | | | | |
| **MID-TERM** | | | **ACTIVITY** | | | **Quantity** | **Percentage (%)** |
| 1st Mid-Term | | | 1 | 50 |
| 2 nd Mid- Term | | |  |  |
| Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other (………) | | |  |  |
| **FINAL** | | | Quiz | | |  |  |
| Homework | | |  |  |
| Project | | |  |  |
| Oral Exam | | |  |  |
| Other(……written………….) | | | **1** | **50** |
| **MAKE-UP EXAM** | | | Oral | | Written | Oral and Written | Multiple Choice |
|  | | **x** |  |  |
| **PREREQUISITE(S)** | | |  | | | | |
| **COURSE CONTENT** | | | In the first step the principles of inflammation and later the mediators associated with the inflammation will be discussed. In addition, experimental animal models of inflammation and pharmacotherapy of inflammation will be studied. | | | | |
| **COURSE AIMS** | | | The basic aim of the course is to learn the inflammatory mechanisms and the associated neuromediators, to manage an experiment by using the experimental inflammation models and to learn the pharmacological treatment of inflammation. | | | | |
| **COURSE OBJECTIVES** | | | To be able to plan experimental studies based on the mechanisms of inflammation | | | | |
| **TEXTBOOK(S)** | | | 1. KAYAALP, S O. (2012); Akılcıl Tedavi Yönünden Tıbbi Farmakoloji.  2. Basic and Clinical Pharmacology: Bertram G. Katzung,  3. Toksikoloji (Akut zehirlenmelerde Tanı ve tedavi) | | | | |
| **REFERENCES** | | | 1. KAYAALP, S O. (2012); Akılcıl Tedavi Yönünden Tıbbi Farmakoloji.  2. Basic and Clinical Pharmacology: Bertram G. Katzung,  3. GOODMAN AND GİLLMAN‘S (2011). The Pharmacological basis of Therapeutics. 12th edition  4-Pharmacology volume 2, The Pharmacotherapy of inflammation, editor: Harry Majewski. | | | | |

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|  | **COURSE SYLLABUS** | |
| **WEEK** | **DATE** | **SUBJECTS/TOPICS** |
| 1 |  | The principles of inflammation and the immune system |
| 2 |  | Major mediators of inflammation |
| 3 |  | Endogenous down regulators of inflammation |
| 4 |  | Cytokines and chemokines |
| 5 |  | The pharmacology of immunesupression |
| 6 |  | Neuroinflammation and related diseases |
| 7 |  | Experimental animal models of inflammation-1(Acute inflammation) |
| 8 |  | **Mid-term Exam** |
| 9 |  | Experimental animal models of inflammation-2 (Chronic inflammation) |
| 10 |  | Mediator receptor antagonists in pharmacotherapy of inflammation |
| 11 |  | Cytokine neutralizing agents in pharmacotherapy of inflammation |
| 12 |  | Disease modifying antirhomatoid agents in pharmacotherapy of inflammation |
| 13 |  | Immunsupressants in pharmacotherapy of inflammation |
| 14 |  | The treatment of gout disease |
| 15 |  | **Final Exam** |

**PROGRAM QUTCOMES**

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| --- | --- | --- | --- | --- |
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| 8 | use computer effectively both in conducting the experiments and analyzing the data |  | **X** |  |
| 9 | understand the impact of experimental solutions on national and international sciences |  | **X** |  |
| 10 | use effective written and oral communication/presentation skills |  | **X** |  |
| 11 | get an understanding of professional and ethical responsibility |  | **X** |  |
| 12 | get a recognition of the need for, and an ability to engage in lifelong learning |  | **X** |  |

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| **Instructor Name**  Assist.Prof. Dr. Bilgin KAYGISIZ  **Sign** | **Date**  16.11.2016 |