**BİRUNİ UNİVERSİTY**

**“The Future of Science”**

**FACULTY OF PHARMACY**

**…Pharmaceutical and Medicinal Chemistry….. DEPARTMENT**

**COURSE INFORMATION PACKAGE**

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| **Course Code** | | **Course optic Code** | **Theory**  **hours/week** | **Application**  **hours/week** | **Credit** | **ECTS** |
| **……ECZ340……** | |  |  | …. | …… | **………** |
| **Course Name** | | **Pharmacology II** | | | | |
| **Semester** | | **2016-2017 Spring** | | | | |
| **Course Type** | | **Obligatory** | | | | |
| **Course Language** | | **Turkish** | | | | |
| **Prequisites** | | **Pharmacology I** | | | | |
| **Mode of Delivery** | | **In class, interactive.** | | | | |
| **Disabled Students** | | **Disabled students, they need information about their own status submitted to the faculty may request the provision of necessary convenience.** | | | | |
| **Instructor(s)** | | **Assist prof Dr.Güldem Mercanoğlu** | | | | |
| **Course Assistant** | | **None** | | | | |
| **Course Objective** | | This course is designed to improve learners’ ability to understand the mechanisms that regulate central nervous, respiratory, gastro-intestinal and endocrine systems and drugs that are used the disregulation of these mechanisms, the role of autacoids in different physiological and pathophysiological conditions and drugs that alter the effects of autacoids | | | | |
| **Teaching Methods:** | 1: Lecture, 2: Question-Answer, 3: Discussion, 4: Demonstration, 5: Study Group, 6: Brain Storming, 7: Case Study, 8: Self Study | | | | | |
| **Assessment Methods:** | A: Pre- and Post-Testing, B: Exam, C: Homework Assignment,  D: Performance Task | | | | | |
| **Learning Outcomes** | | Upon completion of this course, the student will be able to:   1. interrogate the neurochemical mechanisms that regulate the central nervous system activity and the drugs that alter the central nervous system’s activity. 2. understand the inflammation and anti-inflammatory mechanisms and treatment strategies applied to the reduction of inflammation. 3. explain basic mechanisms that regulate respiratory system, drugs used in the treatment of respiratory system diseases and distinguish indications and contraindications. 4. explain basic mechanisms that regulate gastro-intestinal system, drugs used in the treatment of gastro-intestinal system disorders and distinguish indications and contraindications. 5. explain basic mechanisms that regulate endocrine system, drugs used in the treatment of endocrine system disorders and distinguish indications and contraindications. 6. understand the role of autacoids in different physiological and pathophysiological conditions and drugs that alter the effects of autacoids. | | | | |

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| **Week**  **1.**  **2.**  **3.**  **4.**  **5.**  **6.**  **7.**  **8.**  **9.**  **10.**  **11.**  **12.**  **13.**  **14.**  **15.**  **16.** | **Course Contents and Learning Activities**  Central Nervous System Pharmacology- Fundamentals of Neuronal Transmission  Central Nervous System Pharmacology –Sedative Hypnotics  Central Nervous System Pharmacology –Anti-epileptics, Drugs Used in the Parkinson and Other Movement Disorders  Central Nervous System Pharmacology-Neuroleptics and Central Nervous System Stimulants  Central Nervous System Pharmacology -Antidepressants  Central Nervous System Pharmacology-Anaesthetics and Skeletal Muscle Relaxants  Central Nervous System Pharmacology -Opioid analgesics and Antagonists, Non-narcotic Analgesics  Anti-inflammatory Dugs-İnflammation ad Anti-inflammatory Mechanisms, Non-steroidal Anti-inflammatory Drugs  Respiratory System Pharmacology- Drugs Used in the Treatment of Asthma Bronchia and Chronic Obstructive Lung Disease  Respiratory System Pharmacology-Drugs Used in the Treatment of Allergic Rhinitis and Antitussives  **Midterm**- Gastro-intestinal Pharmacology –Drugs Used in the Treatment of Peptic Ulcer and Diarrhoea, Anti-emetics and Laxatives  Endocrine System Pharmacology-Hypophysis and Thyroid Hormones  Endocrine System Pharmacology -Insulin and Oral Hypoglycaemic Drugs  Endocrine System Pharmacology –Steroidal Hormones  Autacoids-Prostaglandins and Antihistaminic Drugs  Drugs Used in The Treatment of Migraine |

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| **Assessment Methods** | **Number** | Percentage % |
| **Attendance(a)** | 16 | 10 |
| **Laboratory** | 0 | 0 |
| **Application** | 0 | 0 |
| **Field Activities** | 0 | 0 |
| **Specific Practical Training** | 0 | 0 |
| **Assingments and Pre- Post-tests** | 17 | 20 |
| **Presentation** | 1 | 5 |
| **Projects** | 0 | 0 |
| **Seminar** | 0 | 0 |
| **Midterm exam** | 1 | 25 |
| **Final exam** | 1 | 40 |

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| **Textbook/**  **References** | ***Different texts from various sources*** |
|  | 1. Kayaalp, S.O. ”Akılcı Tedavi Yönünden Tıbbi Farmakoloji”, Ankara, pelikan Yayınları, 2012 2. Goodman & Gilman “The Pharmacological Basis of Therapeutics”,The McGraw-Hill Company, 2006 3. Katzung, B. “Pharmacology” Appleton  Lang, 2001. 4. Howland RD, Mycek MJ. “Lipincott’s Illustrated Reviews-Pharmacology “ 6th ed, 2015. 5. Silbernagl S, Lang F. “Color Atlas of Pharmacology” 3rd ed. Thieme, 2005. |

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| No | **Competencies of Pharmacy Program** | Katkı | | | | |
| 1 | 2 | 3 | 4 | 5 |
| 1 | Implements skills in all areas of occupations obtained from pharmaceutical basic and professional sciences within the scope and framework of rules of ethics, religion, language, race, gender and socio-economic discrimination in collaboration with the relevant professional administrators and regulatory authorities. |  |  | X |  |  |
| 2 | Communicates effectively with community members, health care professionals, policy makers and administrators to transfer informations of professional pharmacy applications and usage of pharmaceutical products. |  |  | X |  |  |
| 3 | In the frame of pharmaceutical care and clinical applications, evaluates accuracy and cost-effectiveness of medication treatment, solve the problems and give decisions. |  |  |  | X |  |
| 4 | Acquire the current and evidence-based information by using relevant information technologies to apply the rational use of natural, synthetic and biotechnological drugs and give education, information and consultation to community members, other health-care providers and constitutions. |  |  |  |  | X |
| 5 | Experienced the basic and professional knowledge to manage, apply and make decision of the entire process related to design, handling and consumption of natural, synthetic and biotechnological pharmaceuticals. |  |  |  | X |  |
| 6 | Possess cultural competency and consciousness to design, implement, and monitor patient-oriented pharmacy practice for the improvement of the quality of heath care by making joint cooperation. |  |  |  |  | X |
| 7 | Raise consciousness to application of modern scientific and technological developments in pharmaceutical field by the awareness of lifelong learning. |  |  | X |  |  |
| 8 | Experienced to research and development, quality control, good manufacturing practices and has knowledge to manage and apply the license process of pharmaceutical products. |  |  | X |  |  |
| 9 | As a pharmacist with the universal norms, has foreign language proficiency to follow professional developments, conduct research and developments and competent to communicate patients and other healthcare professionals. | X |  |  |  |  |
| 10 | Gather patient histories, determine needs and priorities of patients, prevent individual diseases, know, define and apply the planning and management process of treatment. |  |  |  |  | X |

WORKLOAD AND ECTS CALCULATION

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| **Activities** | **Number** | **Duration (hour)** | **Total Work Load** |
| **Course Duration (x16)** | 16 | 4 | 64 |
| **Laboratory** |  |  |  |
| **Application** |  |  |  |
| **Specific practical training** |  |  |  |
| **Field activities** |  |  |  |
| **Presentation / Seminar Preparation** |  |  |  |
| **Project** |  |  |  |
| **Homework assignment** | 5 | 1 | 5 |
| **Pre-post Test (Study duration)** | 5 | 2 | 10 |
| **Midterms (Study duration)** | 1 | 10 | 10 |
| **Final Exam (Study duration)** | 1 | 10 | 10 |
| Total Workload | **28** | **26** | **99** |
| **ECTS Credit of Course (Total WorrkLoad/25)** |  |  | **3.96** |