**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** |
|  **……ECZ336……** |  |  4 | …. |  …4… |  **…4……** |
| **Course Name** | **Pharmaceutical and Medicinal Chemistry II** |
| **Semester** | **2016-2017 Spring** |
| **Course Type** | **Obligatory**  |
| **Course Language** | **Turkish** |
| **Prequisites** | **Organic Chemistry** |
| **Mode of Delivery** | **In class, interactive.** |
| **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 |
| **Disabled Students** | **Disabled students, they need information about their own status submitted to the faculty may request the provision of necessary convenience.**  |
| **Instructor(s)** | **Prof. Dr. Süreyya Ölgen** |
| **Course Assistant** | **None** |
| **Course Objective** | The aim of this course is to provide knowledge on the drugs of central nervous system, steroidal analgesics, non-steroidal analgesics, anesthetics, antihistaminics, hormones, steroidal therapeutics and kontraceptives, antidiabetic and tyroid drugs, gastro-intestinal system drugs and vitamins. |
| **Learning Outcomes** | **The students will be able;**Recognize of therapeutic effects of central nervous and gastrointestinal system drugs, hormones and related drugs, steroidal and non-steroidal analgesic drugs, vitamins, and the pharmacogenetic and pharmacokinetic effects of these drugs and their structure-activity relationships and give information to the patients. |

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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** The Drugs of Central Nervous System, Anti-convulsant Drugs, Antiparkinson DrugsAnti-Epileptic DrugsAnti-Migrane Drugs, Anti-emetic DrugsSedative-Hypnotic DrugsNeoroleptic DrugsAntidepressant DrugsGeneral and Local AnestheticsSteroidal AnalgesicsNon-Steroidal AnalgesicsAntihistaminics, Midterm IGatro-Intestinal System DrugsAntidiareics, Laxatives-PurgativesAntidiabeticsThyroid System DrugsSteroidal and Hormon Related Drugs, ContraceptivesVitamins |

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| **Assessment Methods**  | **Number** | Percentage % |
| **Attendance(a)** | 16 | 10 |
| **Laboratory** | 0 | 0 |
| **Application** | 0 | 0 |
| **Field Activities** | 16 | 5 |
| **Specific Practical Training**  | 0 | 0 |
| **Pre- Post-tests** | 16 | 15 |
| **Assingments** | 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. *The Organic Chemistry of Drug Design and Drug Action,* by Richard B. Silverman, 2nd Edition. Elsevier Academic Press, 2004, ISBN 0-12-643732-7.
2. *Foye's Principles of Medicinal Chemistry*, 7th Edition, by David A. Williams and Thomas L. Lemke, Lippincott Williams & Wilkins, 2013.
3. Wilson’s and Gisvold’s, Organic Medisinal and Pharmaceutical Chemistry, 12th Edition, John M. Beale, John H. Block, Walters Kluwer, 2011.
4. *Hacettepe Üniversitesi Eczacılık Fakültesi Ders Kitabı, Taş Yayınevi, Ankara*
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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, solves the problems and gives decisions. |  |  | X |  |  |
| 4 | Acquires the current and evidence-based information by using relevant information technologies to apply the rational use of natural, synthetic and biotechnological drugs and gives education, information and consultation to community members, other health-care providers and constitutions.  |  |  | X |  |  |
| 5 | Experiences 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 | Raises consciousness to application of modern scientific and technological developments in pharmaceutical field by the awareness of lifelong learning. |  |  |  | X |  |
| 8 | Experiences 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, conducts research and developments and competent to communicate patients and other healthcare professionals. | X |  |  |  |  |
| 10 | Gathers patient histories, determines needs and priorities of patients, prevents individual diseases, knows how to 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** | 1 | 10 | 10 |
| **Pre-post Test (Study duration)** | 16 | 1 | 16 |
| **Midterms (Study duration)** | 1 | 10 | 10 |
| **Final Exam (Study duration)**  | 1 | 10 | 10 |
| Total Workload | **35** | **35** | **110** |
| **ECTS Credit of Course (Total WorrkLoad/25)** |  |  | **4.4** |