**BİRUNİ UNIVERSITY**

**“ The Future of Science”**

**FACULTY OF PHARMACY**

**…Department of Professional Sciences**

**COURSE INFORMATION PACKAGE**

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| **Course code** | **Course optic code** | **Theory hours/ week** | **Practice hours/week** | **Credit** | **ECTS** |
| **ECZ331** | …………………. | 3 | - | 3 | 3 |
| **Course name** | Pharmacognosy I |
| **Semester** | 2016-2017 Fall |
| **Course type** | Obligatory |
| **Course name** | Pharmacy |
| **Course language** | Turkish |
| **Prequisites** | Pharmaceutical botany |
| **Training methods** | 1: Lecture, 2: Question-answer, 3: Discussion, 4: Individual study, 5: Group study  |
| **Assesment methods** | A: Written exam B: Oral exam, C: Homework assignment, D: Presentation |
| **Disabled students** | Disabled students they need information about their own status submitted to the faculty may request the provision of necessary convenience. |
| **Instructors** | Assist. Prof. Dr. Vildan Seyhan, Prof. Dr. Abdülkerim Alpınar |
| **Course assistant** | None |
| **Definition** & **objective of the Course** | Pharmacognosy is a practical discipline related with natural raw materials with medicinal or potential medicinal qualities in this context, information about the definition chemical structures, quality control methods and effects of all the regarding raw materials of natural sources is given. Students learn the herbal monographs existing in the pharmacopeia and scientific references regarding with the course. Furthermore students are trained on the raw materials of pharmaceuticals with natural origin, for which disorders they are used and their adverse effects. Knowledge on the extraction and isolation methods of said materials is provided. Students who are trained at the level to give consultancy are also presented professional knowledge and competence on subjects such as pharmaceutical knowhow. Furthermore, professional knowledge and competency on the preparation ad qualitive / quantitive analysis of phytotherapeutic, aromatherapeutic, homeopathic products and herbal teas is given.  |
| **Learning outcomes** | 1. Students know the subjects of extractions, purifications, determination of activity of pharmaceutical raw materials of natural origin.
2. Students learn about how to determine if the herbal drugs confront with the standarts and how quality control thereof is performed and have information about the structure of active ingredients.
3. Students obtain information on the herbal drugs and active ingredients obtained from herbal drugs and given consultancy services.
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| **Weeks****1.****2.****3.****4.****5.** **6.****7.****8.** **9.****10.****11.****12.****13.****14.****15.****16.****17.** | **Course contents and learning activities**Herbal medicine Quality control methods for herbal materials (1) Quality control methods for herbal materials (2) Subjective drug testing Carbohydrates Lipids, fatty acides and glyceridesEnzymes and hormones Midterm Phenols and phenolic glycosides (1) Phenols and phenolic glycosides (2) Phenols and phenolic glycosides (3) Phenols and phenolic glycosides (4) Phenols and phenolic glycosides (5) Nitrogenous seconder metabolites, proteins and the alkaloids (1 / Introduction) The alkaloids (2) The alkaloids (3) The alkaloids (4)  |

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| **Assesment methods** | **Number** | **Contribution percentage** |
| **Attendance** | 16 | 10 |
| **Laboratory** | 0 | 0 |
| **Practice** | 0 | 0 |
| **Field activity** | 0 | 0 |
| **Specific practical training** | 0 | 0 |
| **Quiz** | 1 | 10 |
| **Presentation** | 1 | 10 |
| **Projects** | 0 | 0 |
| **Seminar** | 0 | 0 |
| **Midterm exam** | 1 | 30 |
| **Final exam** | 1 | 40 |
|  **Total** | **100** |

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| **Text book**  |  **Different texts from various sources** |
| **References** | 1. Seçkin T. 2014. İşlevsel bitki kimyası. Nobel Kitabevi, Ankara
2. Tanker M & N. 1985-90. Farmakognozi I. / II. Ankara Üniv Ecz Fak Yay 58-65
3. Evans WC. 2009. Pharmacognosy. Saunders Ltd. USA
4. Heinrich M, Barnes J, Gibbons S *et al*. 2012. Fundamentals of pharmacognosy and phytotherapy. Churchill Livingstone Elsevier
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| **CONTRIBUTION OF THE COURSE PROGRAMME**  |
| **No** | **Competence of the Pharmacy programme** | **Contribution** |
| 1 | 2 | 3 | 4 | 5 |
| 1 | Implements skills in all areas of occupations from pharmaceutical basic and professional sciences within the scope and framework of rules of ethics, religion, language, race, gender and socio-economic discriminaion in collaboration with the relevant professional administrators and regulatory authorities. |  |  |  |  | x |
| 2 | Communicates effecively 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 clinic applications, evaluates accuracy and cost-effectiveness of medication treatment, solve the problems and give decisions. |  | x |  |  |  |
| 4 | Acquire the current and evidence-based informaion by using relevant information technologies and apply the rational use of natural, synthetic, and biotechnologies drugs and give education, information and concultation 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 biotechnical pharmaceuticals.  |  |  |  |  | X |
| 6 | Possess cultural competency and consciousness to design, implement, and monitor patient-oriented pharmacy practice for the improvement of the qualty of health care by making joint cooperation. |  | x |  |  |  |
| 7 | Raise conciousness and application of modern scientific and technological developments in pharmaceuticalfield by the awareness of lifelong learning. |  |  |  | X |  |
| 8 | Experienced to research and development, quality control, good manufactoring practices and has knowledge to manage and apply the license process of pharmaceutical products. |  | x |  |  |  |
| 9 | As a pharmacists with the universal norms, has foreign language proficiency to follow professional developments, conduct research and developments and competent to communicate pateints 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** | **Total work load** |
| **Course duration** | 16 | 3 | 48 |
| **Laboratory** | - | - | - |
| **Laboratory practice** | - | - | - |
| **Specific practical training** | - | - | - |
| **Field work** | - | - | - |
| **Presentation / seminar preparation** | 1 | 5 | 5 |
| **Project** | - | - | - |
| **Homeworks** | 1 | 5 | 5 |
| **Quiz** | - | - | - |
| **Midterms (study duration)**  | 1 | 8 | 8 |
| **Final exam (study duration)** | 1 | 8 | 8 |
| **Total workload** | **20** | **29** | **72** |
| **ECTS credit of course (Total workload / 25)**  |  |  | **2.8** |