Ankara University

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**Syllabus**

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| Course Title and code | PHA943 Metabolism in Drug Design Timetable of the Classes |
| Course Coordinator | Prof.Zeynep ATEŞ ALAGÖZ |
| Instructors | Prof.Zeynep ATEŞ ALAGÖZ |
| Course Level | Undergraduate |
| Course Type | Elective |
| Course Content | In this course it is taught introduction to drug metabolism (biotransformation), reactions and pathways of metabolism, drug design and development methods, importance of metabolites in pharmacological activity, metabolite effect on drug deactivation, metabolite effect on drug toxicity, metabolites that are responsible for modifying pharmacological activity, drug design using metabolites and molecular modifications, drug design based on metabolites to have better absorption and transportation properties in the body. |
| Goals | Aim of the course is to give information about introduction to drug metabolism, metabolic pathways and reactions, the importance of drug metabolites in the pharmacological activity of the drug molecules, the effect of metabolites to the deactivation and toxicity of the drug molecules, metabolites responsible for the pharmacological effect, causes of metabolic differentiation between races, drug design based on metabolites to have better absorption and transportation properties in the body. |
| Learning Outcomes | 1. Have knowledge about drug metabolism pathways, biological effect of metabolites, effect of drug metabolism on pharmacokinetic and pharmacological properties of the drug,
2. Have knowledge about good absorption of drugs, and design of metabolite based drugs to provide transport properties
3. Makes drug design with molecular modifications using metabolites
4. Pharmacological and pharmacokinetic properties of drug metabolites
5. Has the ability to conduct research and development (R & D) studies on drug-based drug design
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| Course Duration  | One Term (one hour/week) |
| Language of Instruction | English |
| **Prerequisites** | None |
| Recommended Sources |

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| Farmasötik Kimya Hacettepe Üniversitesi Yayınları ISBN: 978-975-491-171-8 3. Baskı, Aralık 2013 |
| Foye's Principles of Medicinal Chemistry Publication Date: March 8, 2012 ISBN-10: 1609133455 ISBN-13: 978-1609133450 Edition: Seventh, North American Edition |

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| ECTS Credits | 1 |
| Practise | None |
| Other-1 | None |