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Syllabus

(Code and Name of the Course (Dersin Kodu ve İsmi))	PHA285 – Organic Chemistry-I
Lecturer (Dersin Sorumlusu)	Prof. Dr. Mehmet Erdem BÜYÜKBİNGÖL
Course Grade (Dersin Düzeyi)	Undergraduate (Lisans)
Course Type (Dersin Türü)	Compulsory course (Zorunlu)
Course Content (Dersin İçeriği)	<p>In this introductory to organic chemistry course, first of all, we will be mentioning about the background and history of organic chemistry, something of the problems related to drug world which are very important to design, synthesis and the future importance of mode of action of drugs in biological systems. This includes very important facts for the Pharmaceutical Chemistry courses in forthcoming years in Ankara University, Faculty of Pharmacy, Department of Pharmaceutical Chemistry syllabus. We will also get in to basic details of some titles of what will be important for students regarding to the philosophy of drug-related organic synthesis in the framework of overall fundamentals of organic chemistry.</p>
Aim of the Course (Dersin Amacı)	<p>The aim of the organic chemistry-I course is mainly to prepare students to "DRUG WORLD".</p> <p>To do this, students will be led to develop an understanding and appreciation of both structure and chemical transformations of organic molecules. Students will also be acquired basic concepts of electronic structure and be able to apply them to solve problems from various areas of organic chemistry, including stereochemistry, reactivity patterns and basic synthesis.</p> <p>Improvements in learning strategies, preparation homeworks, verbal presentations, critical-thinking, and problem-solving skills (driven by daily questions) are the expected outcomes for this course.</p>
Learning Outcomes (Dersin Öğrenme Çıktıları)	<p>On completion of this course students should be able to;</p> <ul style="list-style-type: none">- Describe the structure and properties of matter at a basic level.- Characterize chemical compounds according to type, name chemical compounds, and write formulas for chemical compounds.- Understand periodic table relationships among the elements.- Distinguish organic chemicals by name and structure.- Recognize and draw all common functional groups and be able to name compounds containing these units using IUPAC substitutive nomenclature.- Recognize and draw basic stereochemical structures.- Describe a range of simple organic reactions.- Identify functional groups in common pharmaceutical compounds and use this knowledge to properly predict properties of these complex molecules (such as solubility).- Discuss the role played by chemistry in everyday life, with particular emphasis on topical issues such as ozone depletion, global warming, alternative fuels, and water quality.- Discuss selected topical issues critically, with reference to the underlying scientific principle.
Course Duration (Dersin Süresi)	One Term (two hours/week)

Language of Instruction (Eğitim Dili)	English
Prerequisite (Ön Koşul)	None
Recommended Sources (Önerilen Kaynaklar)	<p>Sources for the course;</p> <ul style="list-style-type: none"> - Organic Chemistry Paula Y. Bruice Hardcover, 1440 Pages 6th Edition, 2010 ISBN: 978-0-321-66313-9 Prentice Hall - Organic Chemistry Jonathan Clayden, Nick Greeves, Stuart Warren Paperback, 1234 Pages 2nd Edition, 2012 ISBN: 978-0199270293 Oxford University Press - Chirality in Drug Research Eric Francotte, Wolfgang Lindner Hardcover, 351 Pages First Edition, 2006 ISBN: 3-527-31076-2 Wiley-VCH
Course Credit (Dersin Kredisi)	2
Practise (Laboratuvar)	None
Other-1 (Diğer-1)	None