Jordan University of Science and Technology
Faculty of Science & Arts
Chemistry Department

CHEM411 Chemistry Of Natural Products
Summer Semester 2019-2020

Course Catalog
2 Credit Hours. This course covers selected topics in natural products chemistry. The goals of the course are to illustrate the mechanisms of the organic reactions occurs in the biological systems and discuss the main aspects of the biosynthetic origin of complex organic compounds from natural sources, to examine the reactivity and the chemical synthesis of some of these compounds.

Text Book	
Title	Medicinal natural products: a biosynthetic approach
Author(s)	Dewick, P.M.
Edition	3rd Edition
Short Name	Medicinal natural products
Other Information	

Instructor	
Name	**Prof. Naim Al-Said**
Office Location	N4L0
Office Hours	
Email	naim@just.edu.jo

Class Schedule & Room

Section 1:
  Lecture Time: Sun, Mon, Tue, Wed : 10:00 - 11:00
  Room: منصة الكترونية

Tentative List of Topics Covered

Weeks	Topic	References
Week 1	Introduction: Primary and Secondary Metabolism	
Week 2	Isotopic Labeling	
Week 3	The Organic Chemistry of the Coenzymes and Vitamins	
Week 4	The Organic Chemistry of Lipids	
Week 5	The Organic Chemistry of Lipids	
Weeks 6, 7	Polyketides	
Weeks 8, 9	Fatty acids	
Week 10	Steroids	
Weeks 11, 12	Terpenes	
Weeks 13, 14	Shikimic acid Metabolites & Phenolic Coupling	
Weeks 15, 16	Alkaloids	

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
The mechanisms of the organic reactions occurs in the biological systems will be discussed [1b, 1j]	30%	
Discuss the main aspects of the biosynthetic origin of complex organic compounds from natural sources [1d, 1h]	30%	
Examine the reactivity and the chemical synthesis of some of these compounds. [1i, 1k]	40%	

Relationship to Program Student Outcomes (Out of 100%)										
a	b	c	d	e	f	g	h	i	j	k
	15		15				15	20	15	20

Evaluation	
Assessment Tool	**Weight**
first exam	30%
Second Exam	30%
Final	40%

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