



443 Chem

Chemistry of Natural Products



Course Description

The course will focus on some of the key isolation methods manufacturing technologies and applications such as.

- Terpenoides
- Steriod
- Alkaloides
- Flavones



References



- ✓ **Chemistry of Natural Products.**
Sujata V. Bhat, Bhimsen A. Nagasampagi, Meenakshi Sivakumar, First Edition - 2005
ISBN: 3-540-40669-7; Springer, Berlin.
- ✓ **Chemistry of Natural Products.** (Prof. Hassan El Hazmi, **Arabic Edition**).
- ✓ **Natural products Isolation.** Richard J. P. Cannell. Springer. 2002.
- ✓ **Total Synthesis of Natural Products.** Jie Jack Li, E.J. Corey, First Edition 2012.

Course Content

No	List of Topics	Contact Hours
1	Definition of natural products, classification methods, drawn from original sources, separated and identified on the construction	2
2	Terpenoids: classification, natural isoprene rule.	4
3	Exercises on the above	2
4	Steroids, biological importance, classification and biosynthesis.	4
5	Exercises on the above	2
6	Alkaloids: identify Alkaloids, classification and examples on some alkaloidal compounds of various classes.	4
7	Natural phenols and examples, (flavonoids, xanthones, coumarins and quinines).	4
8	Continued of the flavonoids	4
9	Exercises on the above	2
Total		30



Course Learning Outcomes



- Recall the principles and core concepts of the chemistry, significance and sources of natural products, Isolation, purification and identifications
- Recognize to isolated and characterized natural products
- Recognize to determine the structure of terpenoids
- analyze and explain the essential facts, concepts, principles and applications relating to the Natural products



Schedule of Assessment Tasks for Students During the Semester

	Assessment task (i.e., essay, test, quizzes, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Major exam I	Week 6	30%
2	Major exam II	Week 12	20%
3	Quiz and activities	Week 1-15	10%
4	Final Exam	Week 16	40%