

Course Code & Title : **CM4034 Natural Product Chemistry**

Academic Units : 3 AU

Pre-requisite : CM3031 or by permission

Course Description :

CM4034 Natural Product Chemistry

[Lectures: 39; Pre-requisite: CM3031 or by permission; Academic Units: 3]

Learning Objective

To promote understanding of the significance of natural products in terms of their biosynthesis, biological activity and chemical synthesis, combining organic chemistry and biological chemistry.

Content

The course will cover the diversity of natural products and their roles in biological systems, the chemistry and biosynthesis of the major natural product classes and the synthesis of important natural products.

Course Outline

Biosynthesis and total synthesis of important classes of natural products:

S/N	Topic	Lecture Hours
1	Terpenoids and steroids	6
2	Fatty acids	3
3	Arachidonic acid derivatives	3
4	Polyketides	9
5	Shikimic acid	3
6	Alkaloids	9
7	Other natural products of current interest	6

Learning Outcome

Students will understand the role of natural products in living organisms, their biosynthesis and will have a greater understanding of organic synthesis with natural product targets.

Student Assessment

Students will be assessed by a final 2-hour written examination (60%) and continuous assessment (40%).

Textbooks/References

Material will be drawn from the current scientific literature.