

1. DISCLAIMER

The instructor holds the right to make necessary changes to the syllabus and the grading policies outlined here to best accommodate the interest of the class.

2. RATIONALE

This Chemistry of Biomolecules Laboratory course is designed to give students sufficient exposure to laboratory conditions to carry out experiments related with organic chemistry related to biomolecules independently after graduation.

3. OBJECTIVES

The course aims to give the students an understanding of both the logic and planning to carry out experiments. Emphasis is given on separation techniques, preparation of various solutions, and detection of biomolecules from specific sources.

4. LEARNING OUTCOMES

By attending classes regularly and participating in the assessment exam, the students of this course should be able to:

- (i) Know separation techniques used in organic chemistry;
- (ii) Prepare buffers needed in biological science;
- (iii) Perform TLC ;
- (iv) Detect presence of lipid in blood sample.
- (v) Techniques in detecting food adulteration

5. GRADING POLICY

NSU grading policy will be followed.

6. COURSE CONTENT

6.1 COURSE DESCRIPTION

1. Distillation ;
2. Preparation of Buffer;
3. TLC of plant pigments;
4. Lipid Profiling.
5. Milk adulteration test

6.2 TIMELINE

Class	Experiment	Duration
1	Lecture on the "Distillation & Buffer Preparation". Practical on the "Distillation & Buffer Preparation".	3 Hours
2	Lecture on the " TLC of plant pigments" Practical on the " TLC of plant pigments"	3 Hours
3	Lecture on the "Lipid Profiling" Practical on the "Lipid Profiling"	3 Hours
4	Lecture on the " Milk Adulteration Test" Practical on the " Milk Adulteration Test"	3 Hours
	Assessment Exam	60 min

7. EVALUATION STRATEGIES

Topic	Marks	Remarks
Lab reports	30%	2 Lab reports (per group) based on experimental results and discussion.
Class Attendance Performance evaluation	20%	100% attendance is desired. Class attire and carrying out experiments with minimum mistakes will be evaluated.
Assessment Exam	50%	Written Exam