



CHM Organic Chemistry Lab

Course Information		
Course Code, Number & Name	CHM 203, Organic Chemistry LAB Hrs	Total Credit hours: 2 Cr.
Co-requisite	CHEM 202	
Time, Days & Hall		
Instructor		
Office Location		
Office Hours		
E-mail		

Course Description

Chemistry 203: This course is intended to introduce you to major concepts and techniques in organic chemistry through laboratory experiments. The Organic Chemistry Laboratory course will provide training in the techniques of the organic chemistry laboratory, such as carrying out chemical reactions and purification of chemical mixtures. Purification methods such as recrystallization, extraction, distillation, and column chromatography will be utilized. Chemical identification of unknown organic compounds and purity will be determined by assessing data from methods such as chemical tests, thin-layer chromatography (TLC).

Course Objectives

To apply the knowledge obtained in organic chemistry lecture to problem solving in the laboratory. To develop good laboratory techniques; work safety; take data carefully; record relevant observation; use time effectively; assess the efficiency of your experimental method; identification of unknown organic compounds.

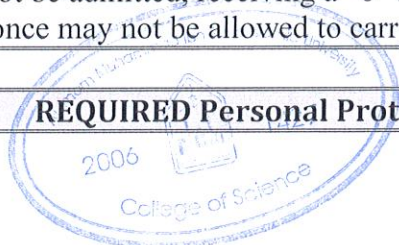
Safety

Students shall describe all relevant safety precautions that were observed during the course of the experiment. Information about the hazards that may be encountered is particularly important. Material Safety Data Sheet information should be included. You should give a summary of the pertinent data (such as: toxicology, flammability, and physical properties).

Experiment Preparation and Prompt Arrival

To operate safely in the laboratory you must be prepared. Students must arrive at the laboratory thoroughly prepared for the experiment, including a properly prepared laboratory notebook. Students that are unprepared for a laboratory experiment are a safety risk and will be removed from the laboratory, receiving a "0" for that experiment. The laboratory lecture is an integral part of the preparation for an experiment at which time safety instructions might be explained to you. Therefore, students arriving to laboratory more than 20 minutes late or during/after the laboratory lecture will not be admitted, receiving a "0" for that experiment. Students who are 5-20 minutes late more than once may not be allowed to carry out the experiment.

REQUIRED Personal Protective Equipment



Safety goggles	Must be properly worn at all times by all occupants of the laboratory, even if you are not working with chemicals, otherwise you will be removed from the laboratory and not permitted to compete the experiment.
Protective gloves	Must be worn at all times in the laboratory. You may utilize disposable latex gloves which disposable in the organic laboratory or a may purchase a rubber gloves.
Laboratory coats	Must be worn at all times in the laboratory. Lab coats can serve a number of purposes – protection from chemical splash, fire resistance, clothing protection, or just to look like a scientist!
Cleanup Lab Area	A clean area provided a safe working environment. Student need to clean up their lab bench and balance room area before they leave the lab. Failure to clean up will result in a deduction of points from your lab grade.

Basic Laboratory Rules

No food or drinks are allowed in the laboratory.

No cell phone usage is allowed in the laboratory.

Laboratory Topics

	Topics to be Covered	Week	Hours
Lab.1	Laboratory Rules and Safety Precautions.	1	3
Lab.2	Identification of Organic Compounds; Physical Character, (Physical Properties).	1	3
Lab.3	Crystallization, Melting Points, Boiling Points.	1	3
Lab.4	Chromatography (Thin Layer Chromatography).	1	3
	Exam I	1	3
	The Qualitative analysis of an Organic Compounds		
Lab.5	Detection of carbon and Hydrogen, Detection of nitrogen and Sulphur.	2	6
Lab.6	Detection of Halogens (Chlorine, Bromine, Iodine, Florine).	2	6
	Exam II	1	3
Lab.7	Classification of organic compounds, identification of Aromatic and aliphatic hydrocarbons (Aliphatic hydrocarbons, Saturated and Unsaturated, Aromatic hydrocarbons, Alcohols, Phenols, Carboxylic acids).	4	12
	Final Exam	1	

Assessment Methods

Assessment Type	Date	Weight %
First Exam	At the end of the 6 th week	15%
Second Exam	At the end of the 12 th week	15%
Quizzes	Are due one week from assignment time	10%
Lab Reports	As required/recommended by the instructor	20%
Final Exam	At the end of the semester as per the university schedule	40%
Total		100%

