

Jordan University of Science and Technology
Faculty of Agriculture
Department of Nutrition and Food Technology
Semester 2007

Course Information	
Course Title	Advanced Laboratory Techniques
Course Number	FN 703
Instructor	Dr. Ziad W Jaradat
Office Location	PH1 L1
Office Phone	23462
Office Hours	----
E-mail	jaradatz@just.edu.jo
Teaching Assistant	-----
Course Description	
<p>This course covers advanced chemical, biochemical, immunological and molecular techniques used in research as applied in nutrition and food science. The emphasis will be on different chromatographic techniques, Radioisotopes ,Immunoassays, Electrophoresis and Spectrophotometry</p>	

Text Book	
Title	Clinical Chemistry
Author(s)	Lawrence A. Kaplan, Amadeo J. Pesce and Steven C. Kazmierczak
Publisher	Mosby
Year	2003

Assessment Policy		
Assessment Type	Expected Due Date	Weight
Midterm Exam		30%
Project		20%
Final Exam		40%
Assignments		10%

Course Objectives	Weights
<p>After successful completion of this course, students should be able to demonstrate understanding of the concepts of chromatography, Electrophoresis and immunoassays and have a basic knowledge of DNA related methods of food analysis.</p>	

Teaching & Learning Methods
<p>Projector Lab</p>

Useful Resources

Laboratory Instruments by Schoeff and Williams, 1993, Published by Mosby.

Course Content

Week	Topics	Chapter in Text (handouts)
	• Spectral techniques	
	• Chromatographic techniques	
	• Mass Spectrometry	
	• Radio Assays and radioisotopes	
	• Immunochromatographic techniques	
	• Electrophoresis techniques	
	• DNA-Based Techniques	

Additional Notes

Exams	Make up exams will not be given. Students are expected to take all the exams unless they have a reasonable excuse in which students are required to make proper arrangement with the professor before the exam. If you miss an exam for a medical reason, then a formal medical report is required .
Projects	discuss two laboratory techniques and their use in Food Technology