



UNIVERSITI TEKNOLOGI MARA

CSI252: CHEMICAL PATHOLOGY III

Course Name (English)	CHEMICAL PATHOLOGY III APPROVED		
Course Code	CSI252		
MQF Credit	3		
Course Description	This course involves the analysis and clinical significance of electrolytes, blood gases, urine constituents, enzymes, bilirubin and drugs. Emphasis is on the correlation of results pertaining to various disease states and the evaluation of case histories.		
Transferable Skills	C1-C6 A1-A5 P1-P5		
Teaching Methodologies	Lectures, Blended Learning, Lab Work, Case Study, Discussion, Presentation, Small Group Sessions, Self-directed Learning, Directed Self-learning		
CLO	CLO1 Describe the interrelationships between electrolytes, electrolyte balance, fluid balance, and acid base balance and display the tests. CLO2 Measure the electrolytes, osmolality, blood pH and enzyme activity in various body fluids. CLO3 Identify the common legal and non-legal drugs and the classification. CLO4 Classify the diagnostic tests involved in the evaluation of kidney function and liver function. CLO5 show and interpret related biochemical tests of electrolytes, kidney function tests, enzymes and liver function tests in group discussion and presentation.		
Pre-Requisite Courses	No course recommendations		
Reading List	<table><tr><td>Recommended Text</td><td><ul style="list-style-type: none">• Carl Burtis, Edward Ashwood, David Bruns 2006, <i>Tietz Fundamentals of Clinical chemistry</i>, 6 Ed., , Saunders WB Company [ISBN:]• , <i>Tietz NW Fundamentals of clinical chemistry</i>, Ed., , [ISBN:]• Bishop Michael, Duben-Von Lauten Janet, Fody , <i>Clinical Chemistry: Principles, procedures a</i>, Ed., , [ISBN:]• Schoeff Larry and Williams, Robert H, <i>Principles of Laboratory Instruments</i>, Ed., , [ISBN:]• Kaplan A., Jack Rhona, Opheim Kent, Taivola B, <i>Clinical chemistry: interpretation and techni</i>, Ed., , [ISBN:]• Karselx Terence, <i>Clinical Laboratory Instrumentation</i>, Ed., , [ISBN:]• Kaplan LA, Pesce AJ (Eds, <i>Clinical chemistry: theory, analysis and corr</i>, Ed., , [ISBN:]• Lilian A.Mundt, Kristy Shanahan 2011, <i>Graff's Textbook of Routine Urinalysis and Body Fluids</i>, 2nd Ed., Lippincott Williams & Wilkins• William J Marshall, Stephen K. Bangert 2008, <i>Clinical Chemistry</i>, 6th Ed., Mosby Elsevier• Nanda Maheshwari 2008, <i>Clinical Biochemistry</i>, 6th Ed., Delmar Cengage Learning• Barbara H. Estridge, Anna P. Reynolds 2011, <i>Basic Clinical Laboratory</i>, Delmar Learning</td></tr></table>	Recommended Text	<ul style="list-style-type: none">• Carl Burtis, Edward Ashwood, David Bruns 2006, <i>Tietz Fundamentals of Clinical chemistry</i>, 6 Ed., , Saunders WB Company [ISBN:]• , <i>Tietz NW Fundamentals of clinical chemistry</i>, Ed., , [ISBN:]• Bishop Michael, Duben-Von Lauten Janet, Fody , <i>Clinical Chemistry: Principles, procedures a</i>, Ed., , [ISBN:]• Schoeff Larry and Williams, Robert H, <i>Principles of Laboratory Instruments</i>, Ed., , [ISBN:]• Kaplan A., Jack Rhona, Opheim Kent, Taivola B, <i>Clinical chemistry: interpretation and techni</i>, Ed., , [ISBN:]• Karselx Terence, <i>Clinical Laboratory Instrumentation</i>, Ed., , [ISBN:]• Kaplan LA, Pesce AJ (Eds, <i>Clinical chemistry: theory, analysis and corr</i>, Ed., , [ISBN:]• Lilian A.Mundt, Kristy Shanahan 2011, <i>Graff's Textbook of Routine Urinalysis and Body Fluids</i>, 2nd Ed., Lippincott Williams & Wilkins• William J Marshall, Stephen K. Bangert 2008, <i>Clinical Chemistry</i>, 6th Ed., Mosby Elsevier• Nanda Maheshwari 2008, <i>Clinical Biochemistry</i>, 6th Ed., Delmar Cengage Learning• Barbara H. Estridge, Anna P. Reynolds 2011, <i>Basic Clinical Laboratory</i>, Delmar Learning
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Article/Paper List	This Course does not have any article/paper resources
Other References	This Course does not have any other resources