

**UNIVERSITI TEKNOLOGI MARA****CSI152: CHEMICAL PATHOLOGY I**

Course Name (English)	CHEMICAL PATHOLOGY I APPROVED	
Course Code	CSI152	
MQF Credit	1	
Course Description	This course is designed to introduce the students to laboratory fundamentals and the various laboratory instruments used in chemical analysis of biological specimens with emphasis on principles, components, operation and maintenance of these instruments. Students are also introduced to urine and protein analysis.	
Transferable Skills	C1, C2, C3, C5, C6, A1, A2, A5, P1	
Teaching Methodologies	Lectures, Blended Learning, Lab Work, Practical Classes, Tutorial, Discussion, Presentation	
CLO	CLO1 Prepare chemicals, reagents and standard solutions. CLO2 Operate basic laboratory and analytical instruments. CLO3 Use mathematical calculations to prepare reagents, stock solutions and preparation of calibration curves. CLO4 Describe the procedure for protein and urine analysis. CLO5 Perform protein test and urinalysis	
Pre-Requisite Courses	No course recommendations	
Reading List	Reference Book Resources	<ul style="list-style-type: none">• Carl Burtis, Edward Ashwood, David Bruns 2006, <i>Tietz Fundamentals of Clinical chemistry</i>, 6th Edition Ed., Saunders WB Company.• Tietz NW, <i>Fundamentals of clinical chemistry</i>• Bishop Michael, Duben-Von Lauten Janet, Fody Edward, <i>Clinical Chemistry: Principles, procedures and correlations</i>• Kaplan LA, Pesce AJ (Eds)., <i>Clinical chemistry: theory, analysis and correlation</i>• Kaplan A., Jack Rhona, Opheim Kent, Taivola Bert, Lyon Andrew, <i>Clinical chemistry: interpretation and techniques</i>• Karselix Terence, <i>Clinical Laboratory Instrumentation</i>• Schoeff Larry and Williams, Robert H, <i>Principles of Laboratory Instruments</i>
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	

