UNIVERSITI TEKNOLOGI MARA

CSI202: CHEMICAL PATHOLOGY II

Course Name (English)	CHEMICAL PATHOLOGY II APPROVED
Course Code	CSI202
MQF Credit	3
Course Description	This course covers the analysis and clinical significance of various constituents of body fluids including thyroid hormones, non-protein nitrogenous substances, lipids, carbohydrates and cerebrospinal fluid.
Transferable Skills	C1-C4 P1-P2 A1-A4
Teaching Methodologies	Lectures, Blended Learning, Lab Work, Case Study, Discussion, Presentation, Small Group Sessions , Self-directed Learning, Directed Self-learning
CLO	CLO1 outline and describe the general components of a quality assurance program, the use of standards and controls to ensure quality and relate preanalytic, analytic and postanalytic variables to patient test result outcomes. CLO2 Explain how quality control programs are used to verify accuracy of patient test results. CLO3 calculate the mean, standard deviation and preparation of Levey-Jenning's chart and apply the Westgard Multirule System in regard to the evaluation of quality control data. CLO4 Explain the principle behind the use of the ±2 standard deviation control range for the evaluation of quality control data. CLO5 Compare and contrast quality control data patterns demonstrating a shift and a trend. CLO6 Describe and perform related biochemical tests of carbohydrates, lipids, hormone and protein and non-protein nitrogenous compounds.
Pre-Requisite Courses	No course recommendations
Reading List	**Recommended Text**

- **Carl Burtis, Edward Ashwood, David Bruns 2006, *Tietz Fundamentals of Clinical chemistry*, 6 Ed., , Saunders WB Company [ISBN:]**
- **, *Tietz NW Fundamentals of clinical chemistry*, Ed., , [ISBN:]**
- **Bishop Michael, Duben-Von Lauten Janet, Fody , *Clinical Chemistry: Principles, procedures an*, Ed., , [ISBN:]**
- **Schoeff Larry and Williams, Robert H, *Principles of Laboratory Instruments*, Ed., , [ISBN:]**
- **Kaplan A., Jack Rhona, Opheim Kent, Taivola B, *Clinical chemistry: interpretation and techni*, Ed., , [ISBN:]**
- **Karselix Terence, *Clinical Laboratory Instrumentation*, Ed., , [ISBN:]**
- **Kaplan LA, Pesce AJ (Eds), *Clinical chemistry: theory, analysis and corr*, Ed., , [ISBN:]**
- **Kee, J.L, *Laboratory and Diagnostic Tests with Nursing Implication*, seven Ed., Pearson Practice Hall**
- **Nancy A. Brunzel 2012, *Fundamental of urine & body fluid analysis*, 3rd Ed., Elsevier Science Health Science Division**
- **Jeremy Hughes, Ashley Jefferson, M.D., Jonathan Ashley Jefferson 2008, *Clinical chemistry:made easy*, Elsevier Health**

		Sciences • **Lillian A. Mundt, Kristy Shanahan 2010, *Graff's Textbook of Routine Urinalysis and Body Fluids*, Lippincott Williams & Wilkins** • **Mary Louise Turgeon 2011, *Linne & Ringsrud's Clinical Laboratory Science: The Basics and Routine Techniques*, Mosby**
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	