



## UNIVERSITI TEKNOLOGI MARA

### PHC515: PRINCIPLES OF PATHOLOGY

<b>Course Name (English)</b>	PRINCIPLES OF PATHOLOGY <b>APPROVED</b>
<b>Course Code</b>	PHC515
<b>MQF Credit</b>	3
<b>Course Description</b>	This course introduces the student to the basic concepts of pathology. The topics covered include the genetic and paediatric diseases, cell injury and inflammatory diseases, neoplasia, hemodynamic and thromboembolic diseases, and other systemic pathology topics.
<b>Transferable Skills</b>	Critical thinking and problem solving skills
<b>Teaching Methodologies</b>	Lectures, Case Study, Tutorial, Presentation
<b>CLO</b>	CLO1 Describe the aetiology, pathogenesis, clinical signs and symptoms of diseases. CLO2 Apply problem solving skills related to different characteristics of diseases. CLO3 Display effective communication skills in presenting the pathogenesis of diseases based on systemic and specific organ system.
<b>Pre-Requisite Courses</b>	No course recommendations
<b>Topics</b>	
<b>1. Introduction to Pathology</b> 1.1) Characteristics, Classification and Incidence of Disease. 1.2) Genetic Diseases 1.3) Paediatric Diseases and Congenital Anomalies	
<b>2. Cell Injury, Cellular Adaptations, and Cell Death.</b> 2.1) Cell injury, cell adaptations and cell death	
<b>3. Neoplasia.</b> 3.1) Characteristics of benign and malignant tumours 3.2) Classification, nomenclature, cell formation/differentiation 3.3) Carcinogenesis: The molecular basis of cancer 3.4) Aetiology, behaviour of tumours 3.5) Aetiology of cancer: Carcinogenic agents 3.6) Clinical features of neoplasia 3.7) Detection, staging and treatment	
<b>4. Hemodynamic Disorders, Thromboembolic Disease, and Shock.</b> 4.1) Edema 4.2) Hyperemia and congestion 4.3) Haemorrhage 4.4) Hemostasis and thrombosis 4.5) Embolism 4.6) Infarction 4.7) Shock	
<b>5. Disease of Blood Vessels.</b> 5.1) Vascular wall cells and their response to injury 5.2) Arteriosclerosis and atherosclerosis 5.3) Hypertensive vascular disease 5.4) Aneurysms and dissections 5.5) Raynaud disease 5.6) Angiogenesis	

<p><b>6. Disease of the Kidney.</b>  6.1) Glomerular diseases  6.2) Disease affecting tubules and interstitium  6.3) Cystic diseases of the kidney  6.4) Urinary outflow obstruction</p>
<p><b>7. Disease of the Liver and Biliary Tract</b>  7.1) Inflammatory disorders (viral hepatitis, autoimmune hepatitis)  7.2) Drug and toxin induced liver diseases (alcoholic liver disease, non-alcoholic fatty liver)  7.3) Secondary biliary cirrhosis  7.4) Disorders of the gallbladder</p>
<p><b>8. Disease of the Respiratory System.</b>  8.1) Respiratory tract infections  8.2) Obstructive and restrictive lung diseases  8.3) Restrictive pulmonary diseases  8.4) Acquired pulmonary diseases of vascular origin</p>
<p><b>9. Disease of the Gastrointestinal Tract</b>  9.1) Disease of the:  9.2) Oral cavity  9.3) salivary glands  9.4) Oesophagus  9.5) stomach  9.6) small and large intestines</p>
<p><b>10. Disease of the Heart</b>  10.1) Heart failure  10.2) Ischaemic heart disease  10.3) Hypertensive heart disease  10.4) Valvular heart disease</p>
<p><b>11. Disease of the Endocrine Glands.</b>  11.1) Disease of the:  11.2) Pituitary  11.3) Thyroid  11.4) Parathyroid glands  11.5) Adrenal glands  11.6) Pancreas</p>
<p><b>12. Disease of the Nervous System.</b>  12.1) Developmental and genetic diseases  12.2) Vascular and circulatory disorders  12.3) infections of the nervous system  12.4) Demyelinating diseases  12.5) Degenerative diseases</p>
<p><b>13. Acute and Chronic Inflammation. Tissue Repair, Cell Regeneration and Fibrosis</b>  13.1) Acute and Chronic Inflammation.  13.2) Tissue Repair, Cell Regeneration and Fibrosis</p>

Assessment Breakdown		%	
Continuous Assessment		100.00%	

  

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Case Study	Case base learning tutorial 1	10%	CLO1
	Case Study	Case base learning tutorial 2	10%	CLO1
	Final Test	Final Assessment	40%	CLO2
	Presentation	Group presentation	20%	CLO3
	Test	Test 1	20%	CLO1

  

Reading List	Recommended Text
	<ul style="list-style-type: none"> <li>Vinay Kumar, Abul K. Abbas, Nelson Fausto, Jon Aster 2017, <i>Robbins &amp; Cotran Pathologic Basis of Disease</i>, 10 Ed., Elsevier Saunders</li> </ul>

  

Article/Paper List	
	This Course does not have any article/paper resources

  

Other References	
	<ul style="list-style-type: none"> <li>Book Raphael Rubin, David Strayer 2014, <i>Rubin's Pathology Clinicopathologic foundations of Medicine</i> , Lippincott Williams &amp; Wilkins</li> <li>Book Russell J. Greene, Norman D. Harris 2008, <i>Pathology and Therapeutics for Pharmacists: A Basis for Clinical Pharmacy Practice</i> , Pharmaceutical Press</li> <li>Book Thomas H. McConnell 2013, <i>The Nature of Disease: Pathology for the Health Professions</i> , Lippincott Williams &amp; Wilkins</li> <li>Book Robin Reid, Fiona Roberts 2011, <i>Pathology Illustrated</i>, Elsevier/Churchill Livingstone.</li> </ul>