



## UNIVERSITI TEKNOLOGI MARA

### PHC451: PRINCIPLES OF PATHOLOGY

<b>Course Name (English)</b>	PRINCIPLES OF PATHOLOGY <b>APPROVED</b>
<b>Course Code</b>	PHC451
<b>MQF Credit</b>	3
<b>Course Description</b>	This course introduces the student to the basic concepts of pathology. The topics covered include epidemiology and pathogenesis of disease, congenital diseases, inflammatory disease, neoplasia, type and mechanism of tissue injury and repair, response to injury and homeostasis.
<b>Transferable Skills</b>	Applied pathology knowledge
<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. Basic concepts of pathology</b> 1.1) Introduction of pathology 1.2) Characteristics, classification and Incidence of Disease.	
<b>2. Cell injury and tissue repair</b> 2.1) Cell injury, cellular adaptations and cell death 2.2) Tissue repair: cell regeneration and fibrosis	
<b>3. Acute and Chronic Inflammation</b> 3.1) Inflammatory diseases	
<b>4. Genetic and Pediatric Diseases</b> 4.1) Genetic diseases 4.2) Paediatric diseases 4.3) Congenital anomalies 4.4) Perinatal infections 4.5) Prematurity and intrauterine growth retardation 4.6) Respiratory distress syndrome of the newborn	
<b>5. Neoplasia</b> 5.1) Characteristics of benign and malignant tumours 5.2) Classification, nomenclature, cell formation/differentiation 5.3) Carcinogenesis: the molecular basis of cancer 5.4) Etiology of cancer: carcinogenic agents 5.5) Host defense against tumors: tumor immunity 5.6) Clinical features of neoplasia 5.7) Behaviour of the tumours 5.8) Detection, staging and treatment	

<p><b>6. Hemodynamic Disorders, Thromboembolic Disease, and Shock</b></p> <p>6.1) Edema  6.2) Hyperemia and congestion  6.3) Haemorrhage  6.4) Hemostasis and thrombosis  6.5) Embolism  6.6) Infarction  6.7) Shock</p>
<p><b>7. Tutorial 1-Case Base Learning (CBL1)</b></p> <p>7.1) Tutorial of topics covered</p>
<p><b>8. Disease of Blood Vessels</b></p> <p>8.1) Vascular wall cells and their response to injury  8.2) Arteriosclerosis and atherosclerosis  8.3) Hypertensive vascular disease  8.4) Aneurysms and dissections  8.5) Raynaud disease  8.6) Angiogenesis</p>
<p><b>9. Disease of the Heart</b></p> <p>9.1) Heart failure  9.2) Ischemic heart disease  9.3) Hypertensive heart disease  9.4) Valvular Heart Disease</p>
<p><b>10. Disease of the Kidney</b></p> <p>10.1) Glomerular diseases  10.2) Diseases affecting tubules and interstitium  10.3) Cystic diseases of the kidney  10.4) Urinary outflow obstruction</p>
<p><b>11. Disease of the Respiratory System</b></p> <p>11.1) Respiratory tract infections  11.2) Obstructive and Restrictive Lung Diseases  11.3) Acquired pulmonary diseases of vascular origin</p>
<p><b>12. Disease of the Nervous System</b></p> <p>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) Degerative diseases</p>
<p><b>13. Tutorial 2-Case base learning (CBL)</b></p> <p>13.1) Tutorial of topics covered previously</p>
<p><b>14. Disease of the Endocrine Glands</b></p> <p>14.1) Disease of the:  14.2) Pituitary  14.3) Thyroid  14.4) Parathyroid glands  14.5) Adrenal glands  14.6) Pancreas</p>
<p><b>15. Disease of the Gastrointestinal Tract</b></p> <p>15.1) Disease of the:  15.2) oral cavity  15.3) salivary glands  15.4) oesophagus  15.5) stomach  15.6) small and large intestines</p>
<p><b>16. Disease of the Liver and Biliary Tract</b></p> <p>16.1) Inflammatory Disorders  16.2) Viral Hepatitis  16.3) Autoimmune Hepatitis  16.4) Drug- and Toxin-Induced Liver Disease  16.5) Alcoholic Liver Disease  16.6) Nonalcoholic Fatty Liver  16.7) Secondary Biliary Cirrhosis  16.8) Disorders of the Gallbladder  16.9) Cholelithiasis  16.10) Cholecystitis</p>
<p><b>17. Poster presentation</b></p> <p>17.1) Specific topic is given to student for group presentation.</p>

Assessment Breakdown		%	
Continuous Assessment		100.00%	

  

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Case Study	CBL 1	10%	CLO1
	Case Study	CBL2	10%	CLO1
	Final Test	Final Assessment	40%	CLO2
	Presentation	Grouping poster 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>
	Reference Book Resources	<ul style="list-style-type: none"> <li>Russell J. Greene , Norman D. Harris 2008, <i>A Basis for Clinical Pharmacy Practice, 3rd Edition</i>, Pharmaceutical Press</li> <li>Thomas H. McConnell 2013, <i>The Nature of Disease: Pathology for the Health Professions</i>, 2nd edition Ed., Lippincott Williams &amp; Wilkins</li> <li>Raphael Rubin, David Strayer 2014, <i>Rubin's Pathology Clinicopathologic foundations of Medicine</i>, 7th Ed., Lippincott Williams &amp; Wilkins</li> <li>Robin Reid, Fiona Roberts 2011, <i>Pathology Illustrated</i>, 7th Ed., Elsevier/Churchill Livingstone</li> </ul>
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	