

UNIVERSITY OF **INSTITUTE OF** **BIOMEDICAL SCIENCE**

Module title:	Molecular Cell Pathology	<i>This should be the same name as it appears on your transcript.</i>
Module Code:	MCP1000	<i>This should be the same code as it appears on your transcript.</i>
Module Year:	2018 1 st Year	<i>This should be the same year as it appears on your transcript</i>
Level:	4	<i>Shows the level at which the subject was studied</i>
Aims:	To understand the cellular and molecular basis of genetic disease and neoplasia.	
Course Content:	<ul style="list-style-type: none"> • Molecular & cellular basis of genes in health and disease • patterns of inheritance • free radicals and antioxidant processes in normal cells and tissues; • mechanisms in generation of free radicals and metabolism and pathological consequences • Mutagenesis • Molecular mechanisms controlling the normal cell cycle; • properties of cancer cells; • the role of oncogenes, tumour suppressor genes and tumour viruses in the development of cancer 	<i>The information here should detail what was covered in each of your modules. A breakdown of the content studied. (This information will be used by the assessors to map against the accredited curriculum and identify any shortfall.)</i>

Learning Outcomes and Objectives:	<p>At the end of the module the student should be able to:</p> <ol style="list-style-type: none"> 1. explain the molecular aetiology of disease-causing mutations 2. demonstrate understanding of the fundamentals of common genetic diseases 3. analyse data (molecular, cellular and inheritance) to investigate genetic diseases 4. explain and evaluate the role of free radicals and antioxidant mechanisms in health and disease 5. evaluate the role played by oncogenes, tumour suppressor genes and tumor viruses in the development of cancer 	<p><i>The information shown here will indicate that the applicant, in passing the module, has met these learning outcomes. As above, these will be used to map against the accredited curriculum.</i></p>
Learning Support:	<p>Pryce. J (2014) The Cell (3rd ed.),ABC Press; Bhawan.K (2018) Principles of Medical Genetics, Williams & Wilkins; Halliwell B and Gutteridge J (2006) Free Radicals in Biology and Medicine (4th edition)</p>	
Teaching and Learning Strategies:	<p>It is envisaged that the 200 hours study time allocated to this module consists of:</p> <ul style="list-style-type: none"> • 60 hours lecture contact • 12 hours practical class contact • 2 hours assessment contact • 126 hours personal study <p>The personal study time should be divided between the directed and independent reading and revision for assessments</p>	

Module descriptors must be stamped by the University at the end of each page.

**IBMS
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