



SUBJECT OUTLINE

Subject Name:

Subject Code:

**Clinical Pathophysiology and
Pharmacology 2**

BIOP221

SECTION 1 – GENERAL INFORMATION

Award/s:	Total Course Credit Points:	Level:
Bachelor of Health Science (Chinese Medicine)	128	2 nd Year
Bachelor of Health Science (Acupuncture Therapies)	96	2 nd Year
Duration: 1 Semester		
Subject is: Core	Subject Credit Points: 4	

Student Workload:

No. timetabled hours per week: 6	No. personal study hours per week: 4	Total hours per week: 10
Delivery Mode*:		
<input type="checkbox"/> On campus	<input type="checkbox"/> Online / Digital	<input checked="" type="checkbox"/> Blended
<input type="checkbox"/> Intensive		
Weekly Session^ Format/s - 2 sessions per week:		
All sessions except sessions 25, 26:		
<input checked="" type="checkbox"/> Livestream lectures:	<input checked="" type="checkbox"/> 2 hours	<input type="checkbox"/> 3 hours
2 x 2 hour lectures per week		
<input checked="" type="checkbox"/> eLearning modules / tutorial:	Tutorials: 2 x 1 hour Interactive online learning modules per week that include learning journal activities, interactive clinical cases or other web-based resources	
Sessions 25, 26:		
<input checked="" type="checkbox"/> On campus workshops / tutorials:	<input type="checkbox"/> 2 hours	<input checked="" type="checkbox"/> 3 hours
1 x 3 hour practical workshop per session		
<p>*All modes are supported by the online learning management system which will include subject documents such as handouts, readings and assessment guides.</p> <p>^A 'session' is made up of 3 hours of timetabled / online study time per week unless otherwise specified. Each subject has a set number of sessions as outlined above.</p>		
Study Pattern:	<input checked="" type="checkbox"/> Full Time	<input checked="" type="checkbox"/> Part Time
Pre-requisites:	BIOP212	
Co-requisites:	Nil	



SECTION 2 – ACADEMIC DETAILS

Subject Rationale

This subject builds on the knowledge gained in Clinical Pathophysiology and Pharmacology 1. It covers disorders related to the endocrine, reproductive, respiratory, cardiovascular and renal systems. The pathophysiological disease states are taught with respect to their aetiology, pathophysiology, clinical presentation, diagnostic tests and pharmacology. Upon successful completion of this subject, the students should be able to demonstrate a thorough understanding of pathophysiology and disease states and their pharmacological treatments.

Learning Outcomes

1. Describe the aetiologies and pathophysiological processes of various diseases and how they contribute to the development of signs and symptoms.
2. Identify laboratory and other diagnostic test results as applied to various disease conditions.
3. Discuss common drug classes, indications, actions, main adverse effects and contraindications as applied to various disease states.
4. Perform a range of clinical examination techniques to examine respiratory, circulation, and cardiac systems.

Assessment Tasks

Type	Learning Outcomes Assessed	Session Content Delivered	Due	Weighting
Attendance (Attendance at 100% of indicated sessions is required)	4	25 & 26	Sessions 25 & 26 (On campus practical workshops)	P/F
Case Study 1 (1000 words)	1-3	1-8	Week 6	30%
Case Study 2 (1500 words)	1-3	9-24	Week 14	40%
Practical Exam (30 minutes)	4	25 & 26	Week 15	30%

All written assessments are due at 11:55 p.m. on the Sunday of the due week and submitted through the LMS.



Pass Requirements

To achieve a passing grade in this subject students must:

- have a cumulative mark of at least 50%, and
- have submitted all assessment items with a value greater than 15%, and
- meeting attendance requirements 'Absences require approved attendance waivers and subsequent make-up activity to be completed'.

Prescribed Readings:

Penman, I. D., Ralston, S. H., Strachan, M. W. J., & Hobson, R. P. (Eds.). (2023). *Davidson's principles and practice of medicine* (24th ed.). Elsevier.

Recommended Readings:

Bryant, B., & Knights, K. (2022). *Pharmacology for health professionals* (6th ed.). Elsevier. [ebook available].

Jarvis, C., & Eckhardt, A. (2023). *Physical examination & health assessment* (9th ed.). Elsevier.

Norris, T. L. (2019). *Porth's pathophysiology: Concepts of altered health states* (10th ed.). Wolters Kluwer.

Subject Content

Week	Lectures	Tutorials / Practicals
1.	Session 1 Endocrine System 1 <ul style="list-style-type: none"> ➤ Clinical presentation of endocrine diseases ➤ Investigations of endocrine diseases ➤ Thyroid diseases ➤ Parathyroid diseases 	<ul style="list-style-type: none"> ➤ Tutorial on presenting signs and symptoms of endocrine disorders. ➤ Tutorial on endocrine system disorders.
	Session 2 Endocrine System 2 <ul style="list-style-type: none"> ➤ Adrenal disease ➤ Hypothalamic and pituitary disease 	<ul style="list-style-type: none"> ➤ Tutorial on endocrine system disorders
2.	Session 3 Endocrine System 3 <ul style="list-style-type: none"> ➤ Diabetes mellitus 	<ul style="list-style-type: none"> ➤ Tutorial on endocrine system disorders
	Session 4 Pharmacological Management of Endocrine System disorders	<ul style="list-style-type: none"> ➤ Tutorial: Drugs used to treat adrenal and thyroid disorders.



	<ul style="list-style-type: none"> ➤ Hypo and hyper thyroid agents ➤ Oral hypoglycaemics 	<ul style="list-style-type: none"> ➤ Tutorial: Drugs used to treat diabetes mellitus: Insulin and oral hypoglycaemics.
3.	<p>Session 5</p> <p>Male Reproductive System</p> <ul style="list-style-type: none"> ➤ Clinical presentation of diseases of male reproductive system ➤ Examination and investigation of the male reproductive systems ➤ Hypogonadism, Gynaecomastia. ➤ Prostate disorders ➤ Penile and testicular disorders ➤ Drugs used to treat diseases of male reproductive system 	<ul style="list-style-type: none"> ➤ Tutorial on case of male reproductive system disorders
	<p>Session 6</p> <p>Female Reproductive System 1</p> <ul style="list-style-type: none"> ➤ Overview of the female reproductive system ➤ Clinical presentation of diseases of female reproductive system ➤ Examination and investigation of the female reproductive systems ➤ Delayed puberty ➤ Menstrual disorders 	<ul style="list-style-type: none"> ➤ Tutorial on female reproductive system disorders
4.	<p>Session 7</p> <p>Female Reproductive System 2</p> <ul style="list-style-type: none"> ➤ Uterine disorders ➤ Disorders of the fallopian tubes and ovaries ➤ Pelvic inflammatory disease ➤ Gynaecological cancers ➤ Revision of the diseases related to the female reproductive system 	<ul style="list-style-type: none"> ➤ Tutorial on female reproductive system disorders
	<p>Session 8</p> <p>Female Reproductive System 3</p> <ul style="list-style-type: none"> ➤ Breast disorders ➤ Pregnancy related disorders 	<ul style="list-style-type: none"> ➤ Tutorial on female reproductive system disorders
5.	<p>Session 9</p>	<ul style="list-style-type: none"> ➤ Tutorial on female reproductive system disorders



	Female Reproductive System 4 <ul style="list-style-type: none"> ➤ Pre-menstrual Syndrome ➤ Drugs used to treat diseases of female reproductive system 	
	Session 10 Infertility & Sexually transmitted infections <ul style="list-style-type: none"> ➤ Bacterial infections ➤ Viral infections ➤ Protozoan infections ➤ Conditions and infections related to infertility ➤ Pharmacological management of infertility and sexually transmitted infections 	<ul style="list-style-type: none"> ➤ Tutorial on Infertility & Sexually transmitted infections
6.	Session 11 Respiratory System 1 <ul style="list-style-type: none"> ➤ Clinical features of respiratory diseases ➤ Respiratory failure 	<ul style="list-style-type: none"> ➤ Tutorial on respiratory system disorders
	Session 12 Respiratory System 2 <ul style="list-style-type: none"> ➤ Diseases of trachea and bronchi ➤ Obstructive pulmonary disease ➤ Cystic fibrosis ➤ Asthma ➤ COPD 	<ul style="list-style-type: none"> ➤ Tutorial on respiratory system disorders
7.	Session 13 Respiratory System 3 <ul style="list-style-type: none"> ➤ Respiratory infections ➤ Pneumonia ➤ Tuberculosis ➤ Infections of the lower respiratory system ➤ Respiratory diseases caused by fungi ➤ Pulmonary vascular disease 	<ul style="list-style-type: none"> ➤ Tutorial on respiratory system disorders
	Session 14 Respiratory System 4 <ul style="list-style-type: none"> ➤ Tumours of the bronchus and lung 	<ul style="list-style-type: none"> ➤ Tutorial on respiratory system disorders



	<ul style="list-style-type: none"> ➤ Interstitial and infiltrative pulmonary disease ➤ Lung disease due to organic dust ➤ Disorders of the chest wall and pleura ➤ Diseases of the diaphragm ➤ Deformities of the chest wall 	
	<p>NON-TEACHING WEEK (note that make-up classes may be scheduled in this week)</p> <p>Semester 1 – This aligns with the week after Easter so it may fall between Weeks 6 to 8</p> <p>Semester 2 & Online students – The non-teaching week falls between Weeks 7 and 8</p>	
8.	<p>Session 15</p> <p>Pharmacological Management of Diseases of Respiratory System</p> <ul style="list-style-type: none"> ➤ Mechanism of action, indications, interactions and adverse effects ➤ Drugs treating: <ul style="list-style-type: none"> ➤ COPD ➤ Asthma 	<ul style="list-style-type: none"> ➤ Tutorial on drugs to treat conditions of the respiratory system
	<p>Session 16</p> <p>Cardiovascular System 1</p> <ul style="list-style-type: none"> ➤ Clinical presentation of cardiovascular diseases ➤ Disorders of rate, rhythm, conduction ➤ Heart failure 	<ul style="list-style-type: none"> ➤ Tutorial on cardiovascular system disorders
9.	<p>Session 17</p> <p>Cardiovascular System 2</p> <ul style="list-style-type: none"> ➤ Atherosclerosis ➤ Vascular disease ➤ Hypertension ➤ Aortic aneurysm 	<ul style="list-style-type: none"> ➤ Tutorial on cardiovascular system disorders
	<p>Session 18</p> <p>Cardiovascular System 3</p> <ul style="list-style-type: none"> ➤ Coronary Heart Disease ➤ Angina ➤ Myocardial infarction 	<ul style="list-style-type: none"> ➤ Tutorial on cardiovascular system disorders
10.	<p>Session 19</p>	<ul style="list-style-type: none"> ➤ Tutorial on cardiovascular system disorders



	Cardiovascular System 4 <ul style="list-style-type: none"> ➤ Diseases of heart Valves ➤ Diseases of myocardium ➤ Diseases of pericardium 	
	Session 20 Pharmacological Management of Diseases of Cardiovascular system <ul style="list-style-type: none"> ➤ Antihypertensives ➤ Anti-angina ➤ Heart failure ➤ Lipid Lowering Drugs ➤ Anticoagulants ➤ Modification of the autonomic nervous system 	<ul style="list-style-type: none"> ➤ Tutorial on drugs used to treat conditions of cardiovascular disorders
11.	Session 21 Urinary System 1 <ul style="list-style-type: none"> ➤ Examination and investigation of the urinary system ➤ Clinical features of renal diseases ➤ Cystitis/ UTIs ➤ Urinary incontinence ➤ Reflux nephropathy / Chronic pyelonephritis 	<ul style="list-style-type: none"> ➤ Tutorial on urinary tract disorders
	Session 22 Urinary System 2 <ul style="list-style-type: none"> ➤ Renal vascular disease ➤ Glomerular diseases ➤ Kidney stones ➤ Nephrocalcinosis 	<ul style="list-style-type: none"> ➤ Tutorial on urinary tract disorders
12.	Session 23 Urinary System 3 <ul style="list-style-type: none"> ➤ Tubulo-interstitial diseases ➤ Acute / Chronic renal failure ➤ Polycystic kidney disease ➤ Tumours of the kidney 	<ul style="list-style-type: none"> ➤ Tutorial on urinary tract disorders



	<p>Session 24</p> <p>Pharmacological Management of Diseases of Urinary system</p> <ul style="list-style-type: none"> ➤ Antibiotics ➤ Nitrofurantoin ➤ Fosfomycin ➤ Antifungal drugs ➤ Cystine-binding agents ➤ Diuretics 	<ul style="list-style-type: none"> ➤ Tutorial on drugs used to treat urinary system disorders
13.	<p>Session 25</p> <p>Respiratory Physical Examination</p>	<ul style="list-style-type: none"> ➤ Practical activities on respiratory system
	<p>Session 26</p> <p>Circulation and cardiac physical examination</p>	<ul style="list-style-type: none"> ➤ Practical activities on pulses, taking blood pressure, checking circulation, heart sounds and venous pressure
14	<p>Non-Teaching Week/Practical Examination Week 1</p> <p>Note that make-up classes may be scheduled in this week</p>	
15	<p>Non-Teaching Week/Practical Examination Week 2</p> <p>Note that make-up classes may be scheduled in this week</p>	
16	<p>Final Examination Week 1</p> <p>There is no final exam for this subject</p>	
17	<p>Final Examination Week 2</p> <p>There is no final exam for this subject</p>	