

# SUBJECT OUTLINE



Subject Name:

**Pathology and Clinical Sciences 2 and 3**

Subject Code:

**BIOS222**

## SECTION 1 - GENERAL INFORMATION

<b>Award/s:</b>	<b>Total Course Credit Points:</b>	<b>Level:</b>
Bachelor of Health Science (Acupuncture)	128	Core 2 <sup>nd</sup> Year
Bachelor of Health Science (Naturopathy)	128	Core 2 <sup>nd</sup> Year
Bachelor of Health Science (Nutritional and Dietetic Medicine)	96	Core 2 <sup>nd</sup> Year
Bachelor of Health Science (Myotherapy)	96	Core 2 <sup>nd</sup> Year
<b>Duration:</b>	1 Semester	
<b>Subject Coordinator:</b>	Dr Manisha Thakkar (Adelaide campus) and Jenny Yeeles (Adelaide campus)	
<b>Subject is:</b>	Core	<b>Subject Credit Points:</b> 4

### Student Workload:

<b>No. timetabled hours per week:</b>	<b>No. personal study hours per week:</b>	<b>Total hours per week:</b>
<b>6</b>	<b>4</b>	<b>10</b>

#### Delivery Mode:

Face to Face (On campus)	2 x 2 hour lectures	2 x 1 hour tutorials
e-Learning (Online)	Narrated PowerPoint presentations Tutorials: Asynchronous tutor moderated discussion forum and activities Student handouts, web-based resources	
Intensive Delivery (Summer School)	Contact hours are delivered over 5 weeks with 3 x 5.25 hour days delivered per week Content: Combination lecture and tutorial activities Assessment: Summary Table 1 - Week 1; Summary Table 2 - Week 2; Case Review - Week 4; Summary Table 3 - Week 5; Case Study Assignment - Week 6 Full Time Part Time	
<b>Pre-requisites:</b>	BIOC211	
<b>Co-requisites:</b>	Nil	

## SECTION 2 – ACADEMIC DETAILS

### Subject Rationale

This advanced pathology subject expands on the knowledge gained in Pathology and Clinical Science 1 (BIOC211), and considers disorders related to sensory organs such as eyes, ears, nose, and throat, and other systems of the human body including the blood, skin, musculoskeletal, endocrine, nervous and reproductive systems. This subject further considers disorders that affect more than one body system, giving students an opportunity to look at multisystem disorders and their management. Upon successful completion of this subject, students should be able to apply the knowledge of basic pathological processes to analyse and critically evaluate clinical features and investigation tests and to understand the basis for differential diagnosis of the relevant disorders covered in this subject.

## Learning Outcomes

1. Describe the pathological processes and analyse how they contribute to the development of signs and symptoms of various diseases.
2. Identify the role of clinical features in the process of clinical management.
3. Identify appropriate diagnostic investigations and recognise abnormal results that aid in clinical management of various diseases.
4. Apply clinical analysis skills in the formulation of the clinical management plan for various diseases.

## Assessment Tasks

Type	Learning Outcomes Assessed	Session Content Delivered	Due	Weighting
<b>Summary Table 1</b> (group assessment)	1-3	1-6	Week 5	10%
<b>Summary Table 2</b> (group assessment)	1-3	7-14	Week 8	10%
<b>Case Review</b> (1500 words)	1-4	11-17	Week 11	30%
<b>Summary Table 3</b> (group assessment)	1-3	15-22	Week 12	10%
<b>Case Study Assignment</b> (2000 words)	1-4	18-26	Week 15	40%
All written assessments and online quizzes are due at 11:55 p.m. and submitted through the LMS				

### Prescribed Readings:

1. Grossman, S. C., & Porth, C. M. (2014). *Porth's pathophysiology: Concepts of altered health states* (9th ed.). Philadelphia, PA: Wolters Kluwer Health.
2. Walker, B. R., Colledge, N. R., Ralston, S. H., & Penman, I. D. (Eds.). (2014). *Davidson's principles and practice of medicine* (22nd ed.). Edinburgh, Scotland: Churchill Livingstone Elsevier. [ebook available]

### Recommended Readings:

1. Jamison, J. R. (2006). *Differential diagnosis for primary care: A handbook for health care practitioners* (2nd ed.). Edinburgh, Scotland: Churchill Livingstone.
2. Jarvis, C. (2016). *Physical examination & health assessment* (7th ed.). St Louis, MO: Elsevier. [ebook available]
3. Lee, G., & Bishop, P. (2016). *Microbiology and infection control for health professionals* (6th ed.). Frenchs Forest, NSW: Pearson Australia.
4. Reisman, E.G. (2016). *Crowley's an introduction to human disease: Pathology and pathophysiology correlations* (10th ed.). Burlington, MA: Jones & Bartlett.
5. Tortora, G. J., & Derrickson, B. (2014). *Principles of anatomy and physiology* (14th ed.). Danvers, MA: Wiley.
6. VanMeter, K. C., & Hubert, R. J. (2014). *Gould's pathophysiology for the health professions* (5th ed.). St Louis, MO: Saunders. [ebook available]

Subject Content		
Week	Lecture	Tutorial
1.	Session 1 Introduction (Subject Outline / Subject Aims / Assessment / Teaching Resources) <b>Disorders of the Ear, Nose and Throat</b> <ul style="list-style-type: none"> <li>• Overview of the human ear</li> <li>• Presenting problems in ear disorders</li> <li>• Disorders of the ear</li> <li>• Overview of the nose and throat</li> <li>• Presenting problems in nose and throat disorders</li> <li>• Disorders of the nose and throat</li> </ul>	Revision of the diseases related to ear, nose and throat through the use of case studies
	Session 2 <b>Ocular Disorders</b> <ul style="list-style-type: none"> <li>• Overview of the human eye</li> <li>• Disorders of the eye               <ul style="list-style-type: none"> <li>○ The red eye disorders</li> <li>○ Lumps and bumps</li> <li>○ Cataracts</li> <li>○ Glaucoma</li> <li>○ Age related macular degeneration</li> <li>○ Retinal detachment</li> </ul> </li> </ul>	Revision of the diseases related to eyes and visual disturbances through the use of case studies
2.	Session 3 <b>Lymphatic and Haematological Disorders 1</b> <ul style="list-style-type: none"> <li>• Overview of the lymphatic and haematological system</li> <li>• Presenting problems in haematological diseases</li> <li>• Examination and investigation of the haematological system</li> </ul>	Revision of the principles of haematology through videos and review questions
	Session 4 <b>Lymphatic and Haematological Disorders 2</b> <ul style="list-style-type: none"> <li>• The anaemias               <ul style="list-style-type: none"> <li>○ Iron deficiency anaemia</li> <li>○ Megaloblastic anaemia</li> <li>○ Anaemia of chronic disease</li> <li>○ Haemolytic anaemia</li> <li>○ Sickle cell anaemia</li> <li>○ Thalassemia</li> </ul> </li> </ul>	Revision of the diseases related to anaemia through the use of case studies
3.	Session 5 <b>Lymphatic and Haematological Disorders 3</b> <ul style="list-style-type: none"> <li>• Aplastic anaemia</li> <li>• Haematological malignancies:               <ul style="list-style-type: none"> <li>○ Leukaemias</li> <li>○ Lymphomas</li> <li>○ Multiple myeloma</li> </ul> </li> </ul>	Revision of the diseases related to haematological cancers through the use of case studies

	Session 6 <b>Lymphatic and Haematological Disorders 4</b> <ul style="list-style-type: none"> <li>• Myeloproliferative disorders</li> <li>• Bleeding disorders</li> <li>• Thrombotic disorders</li> </ul>	Revision of the diseases related to myeloproliferative disorders and bleeding disorders through the use of case studies and online videos
4.	Session 7 <b>Integumentary System Disorders 1</b> <ul style="list-style-type: none"> <li>• Overview of the integumentary system</li> <li>• Presenting problems in integumentary diseases</li> <li>• Examination and investigation of the integumentary system</li> </ul>	Revision of the principles related to integumentary system through the use of case studies
	Session 8 <b>Integumentary System Disorders 2</b> <ul style="list-style-type: none"> <li>• Eczema</li> <li>• Psoriasis</li> <li>• Lichen planus</li> <li>• Skin infections and infestations</li> </ul>	Revision of the diseases related to integumentary system through the use of case studies
5.	Session 9 <b>Integumentary System Disorders 3</b> <ul style="list-style-type: none"> <li>• Acne and Rosacea</li> <li>• Acne vulgaris</li> <li>• Rosacea</li> <li>• Pressure sores</li> <li>• Skin tumours</li> </ul>	Revision of the diseases related to integumentary system through the use of case studies
	Session 10 <b>Support for Case Review and Case Study Assignment</b>	
6.	Session 11 <b>Musculoskeletal System Disorders 1</b> <ul style="list-style-type: none"> <li>• Overview of the musculoskeletal system</li> <li>• Presenting problems in musculoskeletal diseases</li> <li>• Examination and investigation of the musculoskeletal system</li> <li>• Principles of management of musculoskeletal disorders</li> </ul>	Revision of the diseases related to joints through the use of case studies
	Session 12 <b>Musculoskeletal System Disorders 2</b> <ul style="list-style-type: none"> <li>• Osteoarthritis</li> <li>• Inflammatory joint diseases             <ul style="list-style-type: none"> <li>○ Rheumatoid arthritis</li> <li>○ Seronegative Spondyloarthritis</li> </ul> </li> </ul>	Revision of the diseases related to bones through the use of case studies

7.	Session 13 <b>Musculoskeletal System Disorders 3</b> <ul style="list-style-type: none"> <li>• Gout</li> <li>• Bone and joint Infection</li> <li>• Diseases of bone             <ul style="list-style-type: none"> <li>○ Osteoporosis</li> <li>○ Osteomalacia and rickets</li> <li>○ Paget's disease</li> <li>○ Bone tumours</li> </ul> </li> <li>• Fibromyalgia</li> </ul>	Revision of the diseases related to bones through the use of case studies
	Session 14 <b>Musculoskeletal System Disorders 4</b> <ul style="list-style-type: none"> <li>• Neuromuscular disorders             <ul style="list-style-type: none"> <li>○ Gait disorders</li> <li>○ Involuntary movement</li> <li>○ Disorders of the spine and spinal cord</li> <li>○ Diseases of nerve</li> <li>○ Diseases of the neuromuscular junction</li> </ul> </li> </ul>	Revision of the diseases related to muscles through the use of case studies
<b>NON-TEACHING WEEK</b> (note that make-up classes may be scheduled in this week) <b>Semester 1</b> - This aligns with the week after Easter so it may fall between Weeks 6 to 8 <b>Semester 2 &amp; Online students</b> - The non-teaching week falls between Weeks 7 and 8		
8.	Session 15 <b>Endocrine System Disorders 1</b> <ul style="list-style-type: none"> <li>• Overview of the endocrine system</li> <li>• Presenting problems in endocrine diseases</li> <li>• Investigations of endocrine diseases</li> <li>• Overview of thyroid gland</li> <li>• Thyroid diseases</li> <li>• Overview of parathyroid gland</li> <li>• Parathyroid diseases</li> </ul>	Revision of the diseases related to endocrine system through the use of case studies
	Session 16 <b>Endocrine System Disorders 2</b> <ul style="list-style-type: none"> <li>• Overview of adrenal gland</li> <li>• Adrenal disease</li> <li>• Overview of hypothalamus and pituitary</li> <li>• Hypothalamic and pituitary disease</li> </ul>	Revision of the diseases related to endocrine system through the use of case studies
9.	Session 17 <b>Endocrine System Disorders 3</b> <ul style="list-style-type: none"> <li>• Overview of the Pancreas</li> <li>• The endocrinal pancreatic disease: Diabetes Mellitus</li> </ul>	Revision of the concepts related to endocrine system disorders through the use of case studies

	Session 18 <b>Male Reproductive Disorders</b> <ul style="list-style-type: none"> <li>• Overview of the male reproductive system</li> <li>• Presenting problems in male reproductive diseases</li> <li>• Examination and investigation of the male reproductive systems</li> <li>• Hypogonadism</li> <li>• Gynaecomastia</li> <li>• Klinefelter's syndrome</li> <li>• Prostate disorders</li> <li>• Penile and testicular disorders</li> </ul>	Revision of the diseases related to male reproductive system through the use of case studies
10.	Session 19 <b>Female Reproductive Disorders 1</b> <ul style="list-style-type: none"> <li>• Overview of the female reproductive system</li> <li>• Presenting problems in female reproductive diseases</li> <li>• Examination and investigation of the female reproductive systems</li> <li>• Delayed puberty</li> <li>• Turners syndrome</li> <li>• Menstrual disorders</li> <li>• Hirsutism</li> <li>• Urogenital disorders</li> </ul>	Revision of the diseases related to female reproductive system through the use of case studies
	Session 20 <b>Female Reproductive Disorders 2</b> <ul style="list-style-type: none"> <li>• Uterine disorders</li> <li>• Disorders of the fallopian tubes and ovaries</li> <li>• Pelvic inflammatory disease</li> <li>• Gynaecological cancers</li> </ul>	Revision of the diseases related to female reproductive system through the use of case studies
11.	Session 21 <b>Female Reproductive Disorders 3</b> <ul style="list-style-type: none"> <li>• Breast disorders</li> <li>• Pregnancy related disorders</li> </ul>	Revision of the disorders related to pregnancy through the use of case studies
	Session 22 <b>Infertility, sexually transmitted infections and paediatric disorders</b> <ul style="list-style-type: none"> <li>• Infertility</li> <li>• Sexually transmitted infections</li> <li>• Paediatric disorders</li> </ul>	Revision of infertility, sexually transmitted diseases and paediatric disorders through the use of case studies
12.	Session 23 <b>Nervous System Disorders 1</b> <ul style="list-style-type: none"> <li>• Overview of the central nervous system</li> <li>• Presenting problems in nervous system diseases</li> <li>• Disorders of the cerebro spinal fluid</li> <li>• Cerebrovascular diseases</li> </ul>	Revision of the disorders related to nervous system through the use of case studies

	Session 24 <b>Nervous System Disorders 2</b> <ul style="list-style-type: none"> <li>• Inflammatory diseases</li> <li>• Degenerative diseases</li> <li>• CNS infections</li> <li>• CNS tumours</li> </ul>	Revision of the disorders related to nervous system through the use of case studies
13.	Session 25 <b>Nervous System Disorders 3</b> <ul style="list-style-type: none"> <li>• Psychological medicine</li> <li>• Mood disorders</li> <li>• Anxiety disorders</li> <li>• Schizophrenia</li> <li>• Eating disorders</li> <li>• Drug abuse and misuse</li> </ul>	Revision of the disorders related to nervous system through the use of case studies
	Session 26 <b>Multisystem Disorders</b> <ul style="list-style-type: none"> <li>• Hypertension</li> <li>• Chronic fatigue syndrome</li> <li>• SLE</li> <li>• Cystic fibrosis</li> <li>• Metabolic syndromes</li> </ul>	Revision of the multisystem diseases through the use of case studies
14.	<b>Non-Teaching Week/Practical Examination Week 1</b> Note that make-up classes may be scheduled in this week	
15.	<b>Non-Teaching Week/Practical Examination Week 2</b> Note that make-up classes may be scheduled in this week	
16.	<b>Final Examination Week 1</b> There is no final exam for this subject	
17.	<b>Final Examination Week 2</b> There is no final exam for this subject	