**SECTION 1 – GENERAL INFORMATION**

<table>
<thead>
<tr>
<th>Award/s:</th>
<th>Total Course Credit Points:</th>
<th>Level:</th>
</tr>
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<tbody>
<tr>
<td>Bachelor of Health Science (Acupuncture)</td>
<td>128</td>
<td>2nd Year</td>
</tr>
<tr>
<td>Bachelor of Health Science (Naturopathy)</td>
<td>128</td>
<td>2nd Year</td>
</tr>
<tr>
<td>Bachelor of Health Science (Nutritional and Dietetic Medicine)</td>
<td>96</td>
<td>2nd Year</td>
</tr>
<tr>
<td>Bachelor of Health Science (Myotherapy)</td>
<td>96</td>
<td>2nd Year</td>
</tr>
<tr>
<td>Bachelor of Complementary Medicine</td>
<td>48</td>
<td>2nd Year</td>
</tr>
</tbody>
</table>

Duration: 1 Semester  
Subject is: Core  
Subject Credit Points: 4

**Student Workload:**

<table>
<thead>
<tr>
<th>No. timetabled hours per week:</th>
<th>No. personal study hours per week:</th>
<th>Total hours per week:</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>4</td>
<td>10</td>
</tr>
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</table>

Delivery Mode*:

- ☐ On campus  
- ☐ Online / Digital  
- ☒ Blended  
- ☐ Intensive

Weekly Session^ Format/s - 2 sessions per week:

- ☒ Livestream lectures: 2 hours  
- ☐ 3 hours  
- 2 x 2 hour livestream lectures per week

- ☒ eLearning tutorials:  
  
  Tutorials: 2 x 1 hour Interactive online learning modules that include learning journal activities, interactive clinical cases or other web-based resources

*All modes are supported by the online learning management system which will include subject documents such as handouts, readings and assessment guides.

^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.

Study Pattern:  
- ☒ Full Time  
- ☐ Part Time

Pre-requisites: BIOH122

Co-requisites: Nil
SECTION 2 – ACADEMIC DETAILS

Subject Rationale
This subject provides a comprehensive grounding in the study of pathology and disease states in conventional medicine. The emphasis in the beginning of the subject is on general pathological processes and how they affect the whole body, as well as specific body systems. These responses include inflammation, hypersensitivity, autoimmunity, immunodeficiency and neoplasia and how they give rise to clinical signs and symptoms. There will also be an introduction to the concepts associated with the study of infectious diseases. In the latter part of this subject the emphasis is on the disease states of the systems involved with transport and metabolism — cardiovascular, respiratory, digestive and urinary. Students also learn the pathophysiology, clinical presentations, diagnostic tests, and management of significant systemic disorders relating to these systems. Students will have an understanding of the approach to formulate differential diagnosis. Upon successful completion of this subject, students should be able to apply the knowledge of basic pathological processes and to analyse and critically evaluate clinical features and tests and to understand the basis for the conventional differential diagnosis of relevant disorders related to the above systems. This is a foundational subject for the further study of clinical examination and for the advanced pathology and clinical science subjects.

Learning Outcomes
1. Identify cellular adaptations and major immune responses to stress (injury) leading to homeostatic imbalance and diseases.
2. Identify the key characteristics and basic differences in biochemistry, replication and transmission of viruses, prokaryotic and eukaryotic microbes and their management.
3. Describe pathological processes and analyse how they contribute to the development of the signs and symptoms of various diseases.
4. Apply the knowledge of clinical features of various diseases to formulate differential diagnosis.
5. Discuss tests used in the diagnosis and management of various diseases.

Assessment Tasks

<table>
<thead>
<tr>
<th>Type</th>
<th>Learning Outcomes Assessed</th>
<th>Session Content Delivered</th>
<th>Due</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online quiz</td>
<td>1-2</td>
<td>1-9</td>
<td>Week 6</td>
<td>20%</td>
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<tr>
<td>Case Study Assignment 1</td>
<td>3-5</td>
<td>11-18</td>
<td>Week 10</td>
<td>40%</td>
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<tr>
<td>(1500 words)</td>
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<td></td>
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</tr>
<tr>
<td>Case Study Assignment 2</td>
<td>3-5</td>
<td>19-26</td>
<td>Week 15</td>
<td>40%</td>
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<tr>
<td>(1500 words)</td>
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</tbody>
</table>
Prescribed Readings:


Recommended Readings:


**Subject Content**

<table>
<thead>
<tr>
<th>Week</th>
<th>Lectures</th>
<th>Tutorials / Practicals</th>
</tr>
</thead>
</table>
| 1.   | Session 1 Introduction (Subject Outline / Subject Aims / Assessment / Teaching Resources) **An Introduction to Pathophysiology and effects on body systems**  
- Review of the normal immune response  
  1. Non-specific immunity  
  2. Specific immune responses  
- Cell Adaptation  
- Inflammation  
  1. Acute  
  2. Chronic  
- Tissue Repair | Post lecture: Videos or web resources or interactive materials to revise the concepts of medical terminologies and normal immune response of our body  
Review of inflammation and deep wound healing |
| 2.   | Session 2 **The Abnormal Immune Response - pathophysiology / clinical presentations / investigations / management** | Post lecture: Videos or web resources or interactive materials to review allergies, autoimmunity, and its importance in overall health |
| 6 | Hypersensitivity
|   | Autoimmunity
|   | Immunodeficiency
|   | Post lecture: Videos or web resources or interactive materials to review the concept of infection control and prevention, disease transmission and the chain of infection
| 2. | Session 3
|   | **Infection**
|   | Causes of infection
|   | The normal course of an infection
|   | Presenting problems in infections
|   | Common infections and their management
|   | Post lecture: Videos or web resources or interactive materials to review the structure of bacteria, antibiotic resistance, skin microbes, and the benefits of phage therapy
| 3. | Session 4
|   | **Bacteria**
|   | Classification, biochemistry and replication
|   | Normal flora, pathogenic organisms of clinical importance
|   | Post lecture: Videos or web resources or interactive materials to review viral structure, current treatments, HIV epidemiology, transmission & replication
|   | **Viruses**
|   | Classification, biochemistry and replication
|   | Pathogenic organisms of clinical importance
|   | **Fungi**
|   | Classification, biochemistry and replication
|   | Pathogenic organisms of clinical importance
|   | **Parasites**
|   | Classification, biochemistry and replication
|   | Pathogenic organisms of clinical importance
|   | Post lecture: Videos or web resources or interactive materials to review fungi, parasites and helminths, including their biochemistry, replication, transmission, and clinical treatments
| 4. | Session 7
|   | **Neoplasia**
|   | Three step model of cancer development
|   | Epidemiology
|   | Malignant vs. benign tumours: Patterns of presentation and prognosis
|   | Staging of cancers
|   | Post lecture: Videos or web resources or interactive materials to review the neoplastic concepts of cell mutation, carcinogenesis and risk factors for cancer, along with angiogenesis, metastasis, and micrographs
|   | **Current Advances in Cancer Pathology**
|   | Pathophysiology of cancer
|   | Diagnostic measures of cancer
|   | Treatment of cancer
|   | Post lecture: Videos or web resources or interactive materials to review novel treatments and anti-angiogenic foods
### Session 9
Common Symptomatology – pathophysiology / management

- Pain
- Headache
- Nausea and vomiting
- Cough and breathlessness
- Diarrhoea and constipation
- Anorexia and weight change
- Fatigue, malaise and lethargy
- Fever
- Skin changes and rashes

Post lecture: Videos or web resources or interactive materials to review the pain pathway, headaches, and common signs and symptoms

### Session 10
Assessment Support

### Session 11
Gastrointestinal Tract Disorders 1 – pathophysiology / clinical presentations / investigations / management / differential diagnosis

- Mouth and upper gastrointestinal tract
- Examination and investigation of the digestive system
- Clinical features of gastrointestinal disease
- Diseases of the mouth
- Diseases of the oesophagus
  - GORD
  - Hiatus hernia
  - Oesophagitis

Post lecture: Videos or web resources or interactive materials on conditions of the gastrointestinal tract

### Session 12
Gastrointestinal Tract Disorders 2 – pathophysiology / clinical presentations / investigations / management / differential diagnosis

- Stomach and small intestine
- Diseases and disorders of the stomach and duodenum
- Diseases of the small intestine
- Infections of the small intestine
- Food intolerance

Post lecture: Videos or web resources or interactive materials on conditions of the gastrointestinal tract
### Session 13
**Gastrointestinal Tract Disorders 3 - pathophysiology / clinical presentations / investigations / management / differential diagnosis**
- Pancreas and inflammation
- Diseases of the pancreas
- Inflammatory bowel disease
- Irritable bowel syndrome (IBS)

### Session 14
**Gastrointestinal Tract Disorders 4 – pathophysiology / clinical presentations / investigations / management / differential diagnosis**
- Large intestine and GI cancers
- Disorders of the colon and rectum
  - Diverticulosis
  - Constipation and problems with defecation
  - Anorectal disorders
  - Haemorrhoids
  - Anal fissure
  - Oesophageal cancer
  - Gastric carcinoma
  - Pancreatic carcinoma
  - Colorectal cancer

### NON-TEACHING WEEK (note that make-up classes may be scheduled in this week)
**Semester 1** – This aligns with the week after Easter so it may fall between Weeks 6 to 8
**Semester 2 & Online students** – The non-teaching week falls between Weeks 7 and 8

### Session 15
**Gastrointestinal Tract Disorders 5 – pathophysiology / clinical presentations / investigations / management / differential diagnosis**
- Liver and biliary tract
- Liver and biliary tract disease
- Common clinical features
- Hepatic encephalopathy
- Acute liver failure
- Chronic liver failure
- Chronic liver disease
- Cirrhosis

Post lecture: Videos or web resources or interactive materials on conditions of the gastrointestinal tract

Post lecture: Videos or web resources or interactive materials on conditions of the gastrointestinal tract

Post lecture: Videos or web resources or interactive materials on conditions of the liver and biliary tree
<table>
<thead>
<tr>
<th>Session</th>
<th>Topic</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.</td>
<td>Portal hypertension</td>
<td>Post lecture: Videos or web resources or interactive materials on conditions of the urinary system</td>
</tr>
<tr>
<td></td>
<td>Viral hepatitis</td>
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<td>Alcoholic liver disease</td>
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<td>Non-alcoholic fatty liver disease</td>
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<td></td>
<td>Inherited liver diseases</td>
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<td></td>
<td>Haemochromatosis</td>
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<td>Tumours of the liver</td>
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<td></td>
<td>Gallstones</td>
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<td>Cholecystitis</td>
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<td>9.</td>
<td>Session 17</td>
<td>Post lecture: Videos or web resources or interactive materials on conditions of the urinary system</td>
</tr>
<tr>
<td></td>
<td>Urinary Tract Disorders 2 – pathophysiology / clinical presentations / investigations / management / differential diagnosis</td>
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<tr>
<td></td>
<td>Renal vascular disease</td>
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<td>Glomerular diseases</td>
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<td></td>
<td>Kidney stones</td>
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<td></td>
<td>Nephrocalcinosis</td>
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<tr>
<td>18.</td>
<td>Session 18</td>
<td>Post lecture: Videos or web resources or interactive materials on conditions of the urinary system</td>
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<tr>
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<td>Urinary System Disorders 3 – pathophysiology / clinical presentations / investigations / management / differential diagnosis</td>
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<tr>
<td></td>
<td>Tubulo-interstitial diseases</td>
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<td></td>
<td>Acute / Chronic renal failure</td>
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<td>Polycystic kidney disease</td>
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<td>Tumours of the kidney</td>
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<tr>
<td>10.</td>
<td>Session 19</td>
<td>Post lecture: Videos or web resources or interactive materials on conditions of the cardiovascular system</td>
</tr>
<tr>
<td></td>
<td>Cardiovascular System Disorders 1 – pathophysiology / clinical presentations / investigations / management / differential diagnosis</td>
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</tr>
</tbody>
</table>
### Session 20
**Cardiovascular System Disorders 2 – pathophysiology / clinical presentations / investigations / management / differential diagnosis**
- Atherosclerosis
- Vascular disease
- Hypertension

Post lecture: Videos or web resources or interactive materials on conditions of the cardiovascular system

### Session 21
**Cardiovascular System Disorders 3 – pathophysiology / clinical presentations / investigations / management / differential diagnosis**
- Coronary heart disease
- Angina
- Myocardial infarction

Post lecture: Videos or web resources or interactive materials on conditions of the cardiovascular system

### Session 22
**Cardiovascular System Disorders 4 – pathophysiology / clinical presentations / investigations / management / differential diagnosis**
- Diseases of the heart valves
- Diseases of the myocardium
- Diseases of the pericardium
- Chronic constrictive pericarditis

Post lecture: Videos or web resources or interactive materials on conditions of the cardiovascular system

### Session 23
**Respiratory System Disorders 1 – pathophysiology / clinical presentations / investigations / management / differential diagnosis**
- Examination and investigation of the respiratory system
- Clinical features of respiratory disease
- Respiratory failure
- Influenza

Post lecture: Videos or web resources or interactive materials on conditions of the respiratory system
<table>
<thead>
<tr>
<th>Session 24</th>
<th>Respiratory System Disorders 2 – pathophysiology / clinical presentations / investigations / management / differential diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Diseases of trachea and bronchi</td>
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<tr>
<td></td>
<td>Obstructive pulmonary disease</td>
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<tr>
<td></td>
<td>Cystic fibrosis</td>
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<tr>
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<td>Asthma</td>
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<tr>
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<td>COPD</td>
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<tr>
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<th>Session 25</th>
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<tr>
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<td>Respiratory System Disorders 3 – pathophysiology / clinical presentations / investigations / management / differential diagnosis</td>
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<tr>
<td></td>
<td>Respiratory infections</td>
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<tr>
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<td>Pneumonia</td>
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<tr>
<td></td>
<td>Tuberculosis</td>
</tr>
<tr>
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<td>Infections of the lower respiratory system</td>
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<tr>
<td></td>
<td>Respiratory diseases caused by fungi</td>
</tr>
<tr>
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<td>Pulmonary vascular disease</td>
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<table>
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<tr>
<th>Session 26</th>
<th>Respiratory System Disorders 4 – pathophysiology / clinical presentations / investigations / management / differential diagnosis</th>
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<tbody>
<tr>
<td></td>
<td>Tumours of the bronchus and lung</td>
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<tr>
<td></td>
<td>Interstitial and infiltrative pulmonary disease</td>
</tr>
<tr>
<td></td>
<td>Lung disease due to organic dust</td>
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<tr>
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<td>Disorders of the chest wall and pleura</td>
</tr>
<tr>
<td></td>
<td>Diseases of the diaphragm</td>
</tr>
<tr>
<td></td>
<td>Deformities of the chest wall</td>
</tr>
</tbody>
</table>

| 14. | Non-Teaching Week/Practical Examination Week 1                                   |
|     | Note that make-up classes may be scheduled in this week                           |

| 15. | Non-Teaching Week/Practical Examination Week 2                                     |
|     | Note that make-up classes may be scheduled in this week                           |

| 16-17. | Final Examination Weeks 1 & 2 | There is no final exam for this subject |