

# NATS 2038 PATHOPHYSIOLOGY 1

**Credit Points** 10

**Legacy Code** 401407

**Coordinator** Zoran Pletikosa ([https://directory.westernsydney.edu.au/search/name/Zoran Pletikosa/](https://directory.westernsydney.edu.au/search/name/Zoran%20Pletikosa/))

**Description** This subject is intended for students enrolled in Health and Medical Science courses and is designed to equip students with a detailed knowledge of pathophysiological processes evident in a number of key human diseases that are vocationally relevant to these students. The content is organised using a systems-based approach. Problem-based learning methods will be adopted in the tutorial component of this subject to help students develop crucial problem-solving skills.

**School** Science

**Discipline** Medical Science

**Student Contribution Band** HECS Band 2 10cp

Check your HECS Band contribution amount via the Fees ([https://www.westernsydney.edu.au/currentstudents/current\\_students/fees/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Undergraduate Level 2 subject

**Pre-requisite(s)** NATS 1010 - Human Anatomy and Physiology 2

**Restrictions**

Successful completion of 60 credit points

## Learning Outcomes

On successful completion of this subject, students should be able to:

1. explain pathophysiological processes underlying disease
2. apply knowledge of pathophysiological concepts to a range of case studies
3. identify and discuss pathophysiological manifestations of disease states
4. apply problem solving skills in the analysis of case studies
5. relate clinical and laboratory diagnostic findings to pathophysiological processes
6. hypothesise likely outcomes of disease processes
7. explain the basis for common therapeutic interventions

## Subject Content

1. Cardiovascular System
  - Atherosclerosis and ischaemic heart disease
  - Diseases of endocardium, myocardium and pericardium
  - Heart valves dysfunctions
  - Heart failure
  - Hypertension
  - Diseases of arteries
  - Diseases of veins
  - Circulatory derangements: congestion, hyperaemia, oedema
  - Haemorrhage
  - Shock
2. Respiratory System
  - Obstructive lung disorders: asthma, COPD, bronchiectasis
  - Restrictive lung disorders

- Cystic fibrosis
  - Common respiratory infections
  - Pneumonias
  - Tuberculosis
  - Pulmonary embolism
  - Respiratory failure and oxygen therapy
  - Diseases of pleura: pleuritis and pneumothorax
  - Lung cancer
3. Neurological System
    - Brain trauma
    - Spinal cord injury
    - Seizures
    - Cerebrovascular accident
    - Dementia syndromes
    - Demyelinating CNS diseases
    - Cerebral palsy
    - Degenerative brain diseases
  4. Musculoskeletal System
    - Inflammatory joint disorders
    - Degenerative joint disorders
    - Metabolic disorders of bones and joints
    - Bone fractures
    - Musculoskeletal injuries
    - Low back pain
    - Disorders of muscles: myasthenia gravis and muscular dystrophies
    - Fibromyalgia

## Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Type	Length	Percent	Threshold	Individual/ Group Task
Quiz	Estimated at 4hrs per quiz – this includes time spent finding answers	20	N	Individual
Case Study	Up to 3.500 words	30	N	Individual
Final Exam	2 hours	50	N	Individual

Prescribed Texts

No prescribed texts

Teaching Periods

## Autumn (2023)

### Campbelltown

#### On-site

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View timetable ([https://classregistration.westernsydney.edu.au/odd/timetable/?subject\\_code=NATS2038\\_23-AUT\\_CA\\_1#subjects](https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=NATS2038_23-AUT_CA_1#subjects))

## Summer (2023)

### Online

#### Online

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## Autumn (2024)

### Campbelltown

#### On-site

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View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=NATS2038\\_24-AUT\\_CA\\_1#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=NATS2038_24-AUT_CA_1#subjects))