

NATS 2037 PATHOLOGICAL BASIS OF DISEASE

Credit Points 10

Legacy Code 301356

Coordinator Sindy Kayillo ([https://directory.westernsydney.edu.au/search/name/Sindy Kayillo/](https://directory.westernsydney.edu.au/search/name/Sindy%20Kayillo/))

Description From 2020 this subject replaces 300889 - Pathological Basis of Disease. Pathology is the study of disease. Students will gain an understanding of human pathogenesis, general and systems pathological processes, and the scientific basis of diagnostic and treatment options. The subject also introduces normal human tissue and organ histology, and examines histopathological changes evident in disease states.

School Science

Discipline Medical Science

Student Contribution Band HECS Band 2 10cp

Check your fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 2 subject

Pre-requisite(s) BIOS 1025

Equivalent Subjects BIOS 2028 - Pathological Basis of Disease BIOS 2027 - Pathological Basis of Disease

Incompatible Subjects BIOS 2029 - Pathophysiology 1

Restrictions Students must be enrolled in 3577 Bachelor of Medical Science, 3657 Bachelor of Medical Science/Bachelor of Information and Communications Technology, 3673 Bachelor of Medical Science, 3682 Bachelor of Medical Science (Advanced), or 3674 Bachelor of Medical Science (Nanotechnology) or 6002 Diploma in Science/Bachelor of Medical Science Note: Enrolment of students in other programs may be approved by the subject Coordinator for the Summer session, subject to vacancies and meeting equivalent prerequisite knowledge. Please lodge a Rule Waiver request for enrolment.

Assumed Knowledge

Knowledge of cell structure and function of cellular components (consistent with the subject Cell Biology); Knowledge of biochemical pathways and energy production (consistent with the subject Functional Proteins and Genes).

Learning Outcomes

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

1. Use appropriate scientific terminology in the context of histology and pathology
2. Identify and discuss features of normal and diseased tissue
3. Explain disease aetiology, pathogenesis, progression, associated diagnostics and therapeutic interventions
4. Explain anatomical and physiological consequences of disease
5. Apply problem solving skills to interpret clinical and diagnostic findings
6. Explain scientific basis of diagnostics and therapeutic interventions

Subject Content

1. Intro to pathology & cause of disease
- 1.2 Tissue and Organ Histology
2. Cell and Tissue growth
3. Responses to Injury
- 3.1 Water homeostasis & oedema
4. Acid-base homeostasis
5. Carcinogenesis & neoplasia
6. Ischaemia, infarction & inflammation
7. Immune responses & hypersensitivities
8. Cardiovascular pathology
9. Immunopathology
10. Respiratory pathology
11. GIT pathology
12. Nervous system pathology
13. Ageing & death

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
Intr semester 50 minutes test 1		20	N	Individual
Intr semester 50 minutes test 2		20	N	Individual
Pre-class exercises x 4	approx 2 hours work each	20	N	Individual
Final examination	2 hours	40	N	Individual

Prescribed Texts

- Underwood, J. C. E., & Cross, S. S. (Eds.). (2009). General and systematic pathology (5th ed.). Edinburgh: Churchill Livingstone.