

BIOS 1011 BIOSCIENCE 2

Credit Points 10

Legacy Code 401006

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Description This subject will be replaced from Autumn 2022 by 401470 Bioscience 2. This subject extends knowledge gained in Bioscience 1 and introduces nursing students to concepts associated with alterations in health and wellness as a consequence of life transition. It includes an introduction to pathophysiology, pharmacology, immunology and microbiology. The subject also focuses on the impact of microorganisms on the health of people and the body's natural defences, as well as pharmacological interventions, in dealing with infections and injuries and its significance for nursing.

School Nursing & Midwifery

Discipline Human Biology

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 1 subject

Co-requisite(s) BIOS 1010

Equivalent Subjects BIOS 1021 - Introduction to Health Breakdown

Restrictions

Students must be enrolled in 4691 Bachelor of Nursing or 4693 Bachelor of Nursing (Advanced) or 4780 Bachelor of Nursing - WSU Online. Students must be enrolled in 4780 to enrol in WSU Online Campus subjects. Unitrack students may study this subject as a miscellaneous subject.

Learning Outcomes

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

1. Identify the physiological changes that occur in the body in response to health breakdown due to ageing, injury and disease, and in wound healing.
2. Outline the implications of preventative strategies in health breakdown for professional nursing practice.
3. Relate the role of the immune system to the maintenance of health and the consequences of its breakdown.
4. Utilise the concepts associated with primary health care to explain how microorganisms contribute to health breakdown within communities and health care facilities.
5. Discuss the role of pharmacological interventions in health breakdown.

Subject Content

1. The ageing process through to cessation of life
2. Inheritance Patterns ? cancer, genetics and testing
3. Introduction to pathophysiology
4. Cause, pathogenesis, symptoms, course, prognosis, prevention of disease
5. Relevance for nursing
6. Introduction to pharmacology for nurses
7. Pharmacokinetics and pharmacodynamics

8. Microbiology and infections - relevance for nursing
9. Common pathological organisms
10. Sources of infection and modes of transmission
11. National Safety and Quality Health Service Standard 3 ? Preventing and Controlling Healthcare Associated Infections
12. Protein Synthesis
13. Antimicrobial therapy
14. Immune Processes
15. Immune system breakdown and role of the nurse
16. Vaccination and immunisation
17. The inflammatory process
18. Wound healing

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 | Mandatory |
|-----------------|------------------------|---------|-----------|------------------------|-----------|
| Multiple Choice | 30 minutes x 3 quizzes | 20 | N | Individual | Y |
| Case Study | 1200 words | 40 | N | Individual | Y |
| Final Exam | 1 hour | 40 | Y | Individual | Y |

Prescribed Texts

- Lee, G., & Bishop, P. (Eds.). (2016). Microbiology and infection control for health professionals (6th ed.). Melbourne, Victoria: Pearson Australia.
- Marieb, E.N., & Hoehn, K. (2019). Human anatomy & physiology (11th global ed.). Harlow, England: Pearson Education.