

NURS 1004 BIOSCIENCE FOR MIDWIFERY

Credit Points 10

Legacy Code 401031

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

Description This subject extends knowledge gained in Bioscience I and introduces midwifery students to concepts associated with early human development, labour, birth and postpartum changes. Physiological changes in the newborn at birth are identified together with growth and development to six weeks of age. The subject includes an introduction to principles of pharmacology and pharmacological agents that may be used as a supportive resource during pregnancy and birth. In addition to this, the subject also explores the impact of microorganisms on maternal and newborn health and the body's natural defenses in maintaining health.

School Nursing & Midwifery

Discipline Midwifery

Student Contribution Band HECS Band 1 10cp

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

Level Undergraduate Level 1 subject

Pre-requisite(s) BIOS 1010

Co-requisite(s) NURS 1010 AND NURS 1013

Restrictions

Students must be enrolled in 4684 Bachelor of Midwifery.

Learning Outcomes

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

1. Describe the male and female reproductive systems including the menstrual and ovarian cycles
2. Describe fertilisation, development of the embryo and fetal growth and development in relation to gestational age.
3. Explicate the development and functions of the placenta
4. Describe breast development and lactation
5. Identify principles of pharmacology, pharmacokinetics Describe the physiology of pregnancy, labour, birth and the puerperium
6. Discuss the physiology and perception of pain and pain control
7. Describe changes in neonatal physiology and adaptation to extra-uterine life.
8. Discuss the role of microorganisms in health breakdown within the community and in health care facilities and its relevance to professional midwifery practice.
9. Describe the role of the immune system, and the body's defence mechanisms in maintaining health.
10. Explain the principles of pharmacology

Subject Content

1. Physiology of pregnancy

- Anatomy of The uterus, cervix, pelvis and Pelvic floor
 - protection of The Pelvic floor during Pregnancy
 - physical adaption to Pregnancy
 - signs and Symptoms of Pregnancy
 - breast development
 - routine antenatal Screening and tests including confirmation of Pregnancy
 - fetal Anatomy and physiology
 - fetal growth and development
 - hormonal effects on The Maternal body
2. Labour
- initiation and maintenance of labour
 - mechanism of labour
 - Progress of labour
 - physiology of pain, perception of pain and pain control (non Pharmacological)
 - birth process
3. Postnatal woman
- Maternal physiology
 - Wound healing
4. Newborn
- neonatal physiological changes and adaptation to extra-uterine life
 - temperature control in The newborn
 - growth and development
5. Microbiology
- fundamental microbiology
 - host-microbe interactions
 - The immune system
 - infection control
 - The bodies defence mechanisms
 - The microbiome and epigenetics
6. Introduction to the principles of pharmacology and common drugs used during childbirth
- principles of pharmacokinetics and pharmacodynamics
 - quality use of medicines
 - common medication groups
 - Legislation related to medication administration and responsibilities of health professionals
 - common medications used during normal Pregnancy, labour An birth and in The Postnatal period
 - non-Pharmacological and complementary therapies

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	30 min	20	N	Individual
Portfolio	1500 words	40	N	Individual
Portfolio	Revision is of the 1500 words. Reflection 400 words	20	N	Individual
Quiz	30 mins	20	N	Individual
Participation	Weekly participation in tutorial activities	S/U	Y	Individual

Teaching Periods

Spring (2022)

Parramatta - Victoria Rd

Day

Subject Contact Athena Sheehan ([https://directory.westernsydney.edu.au/search/name/Athena Sheehan/](https://directory.westernsydney.edu.au/search/name/Athena%20Sheehan/))

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=NURS1004_22-SPR_PS_D#subjects)

Spring (2023)

Parramatta - Victoria Rd

On-site

Subject Contact Athena Sheehan ([https://directory.westernsydney.edu.au/search/name/Athena Sheehan/](https://directory.westernsydney.edu.au/search/name/Athena%20Sheehan/))

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=NURS1004_23-SPR_PS_1#subjects)