BIOS 2012 EXERCISE PHYSIOLOGY

Credit Points 10

Legacy Code 401142

Coordinator Simon Green (https://directory.westernsydney.edu.au/search/name/Simon Green/)

Description This subject covers the essential physiology that helps us understand how we control our exercise behaviour. In lectures there is a focus on physiological control, with emphasis on neuromuscular, cardiovascular, respiratory and thermoregulatory responses during exercise, as well as adaptation of these responses in response to ageing, disease and exercise training. In laboratory classes, there is a focus on the acquisition and interpretation of physiological responses during exercise.

School Health Sciences

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 2 subject

Pre-requisite(s) NATS 1009 AND
NATS 1010 AND
BIOS 1015 AND
NATS 1023

Equivalent Subjects -

Learning Outcomes

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

1. Define core concepts in neuromuscular, cardiovascular, respiratory and thermoregulatory physiology.
2. Describe the scope of physiological responses during exercise using correct values and units of measurement.
3. Identify effects of biological sex, aging and training on physiological responses during exercise.
4. Differentiate between physiological control and regulation during exercise.
5. Calculate, analyse, interpret and illustrate physiological data recorded during laboratory classes.
6. Contrast and contextualise recorded data with data reported in published scientific literature.

Subject Content

1. Overview of the essential physiology of movement and exercise, including metabolism (covered in Bioenergetics).
2. Neuromuscular physiology and exercise.
3. Cardiovascular physiology and exercise.
4. Respiratory physiology and exercise.
5. Thermoregulation and exercise.
6. Laboratory classes focused on ergometry and the recording, analysis and interpretation of neuromuscular, cardiovascular, respiratory and thermal responses during rest and exercise.

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
Report	300 words plus a maximum of four tables and figures	30	N	Individual	N
Intra-session Exam	60 minutes	42	N	Individual	N
Intra-session Exam	40 minutes	28	N	Individual	N

Prescribed Texts

- Kenney, W.L., Wilmore, J.H., Costill, D.L. Physiology of Sport and Exercise. Seventh Edition. Human Kinetics Publishers. 2020

Teaching Periods

Autumn (2025)

Campbelltown

On-site

Subject Contact Simon Green (https://directory.westernsydney.edu.au/search/name/Simon Green/)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=BIOS2012_25-AUT_CA_1#subjects)