

# NATS 2034 HUMAN SYSTEMS PHYSIOLOGY 1

**Credit Points** 10

**Legacy Code** 301269

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

**Description** This subject builds upon the core concepts and terminology introduced in foundational physiology, focussing on the function of body organ systems, exploring the knowledge of how these organ systems are regulated, integrated, and function within the human body. The focus will be on the muscular, nervous, cardiovascular, respiratory and endocrine organ systems. Students will collect, interpret and analyse data to develop an understanding of the physiological responses of the human body.

**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/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Undergraduate Level 2 subject

**Pre-requisite(s)** NATS 1009 - Human Anatomy and Physiology 1

**Incompatible Subjects** BIOS 1025 - Introduction to Physiology  
BIOS1022 - Introduction to Human Biology

**Restrictions**

Must have passed 60 cp

## Learning Outcomes

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

1. Explain the physiological processes of the muscular, nervous, cardiovascular, respiratory, and endocrine systems.
2. Describe the physiological processes of muscle contraction in skeletal, smooth, and cardiac muscle.
3. Describe the component parts of the nervous and endocrine systems, and their roles in the processes of homeostasis and regulation of other organ systems.
4. Identify the independent functions of the cardiovascular and respiratory systems, and their co-dependence for delivery of oxygen and clearance of metabolic products.
5. Critically discuss data from laboratory activities and concepts from in-class activities.

## Subject Content

1. Muscle physiology
2. Neurophysiology
3. Cardiovascular system
4. Respiratory system
5. Endocrine system

## Special Requirements

Essential equipment

All students are required to have and wear closed-toed shoes, laboratory coat and safety glasses when working in the Physiology laboratory spaces. Students need to complete and provide evidence of an online WHS induction quiz before entering the first practical class.

## 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
Quiz	15 minutes	15	N	Individual	N
Participatio	Duration of 10 practical class (2 hrs)		N	Group	N
Report	1,000 words	30	N	Individual	N
Presentatio	3-5 minutes	15	N	Group	N
Final Exam	2 hours	30	N	Individual	N

Prescribed Texts

- Amerman, E, 2019, Human anatomy & physiology (Second edition; Global ed.), Pearson ISBN: 9781292260174

Teaching Periods

## Autumn (2025)

### Campbelltown

**On-site**

**Subject Contact** Ben Perry ([https://directory.westernsydney.edu.au/search/name/Ben Perry/](https://directory.westernsydney.edu.au/search/name/Ben%20Perry/))

View timetable ([https://classregistration.westernsydney.edu.au/odd/timetable/?subject\\_code=NATS2034\\_25-AUT\\_CA\\_1#subjects](https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=NATS2034_25-AUT_CA_1#subjects))

### Parramatta - Victoria Rd

**On-site**

**Subject Contact** Ben Perry ([https://directory.westernsydney.edu.au/search/name/Ben Perry/](https://directory.westernsydney.edu.au/search/name/Ben%20Perry/))

View timetable ([https://classregistration.westernsydney.edu.au/odd/timetable/?subject\\_code=NATS2034\\_25-AUT\\_PS\\_1#subjects](https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=NATS2034_25-AUT_PS_1#subjects))