



MEDI2300

Nervous System

Session 1, In person-scheduled-weekday, North Ryde 2025

Macquarie Medical School

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Disclaimer

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General Information

Unit convenor and teaching staff

Unit convenor and teaching staff

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Consultation by appointment

Anatomy Lead

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Credit points

10

Prerequisites

40cp at 1000 level or above including (HLTH108 or ANAT1001) or (COGS100 or COGS1000)

Corequisites

Co-badged status

Unit description

This unit will provide you with an introductory understanding of the nervous system. This unit integrates both anatomy and physiology allowing you to learn about how the nervous system is organised and communicates information with a particular focus on the production of movement, processing of sensory information, regulation of homeostatic function and the basics of learning and memory. You will also be introduced to drug classes that positively and negatively affect the functioning of the nervous system and the clinical consequences that arise from pathological changes to the nervous system. Key learning activities will include lectures, tutorial and practical sessions.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://www.mq.edu.au/study/calendar-of-dates>

Learning Outcomes

On successful completion of this unit, you will be able to:

ULO1: Describe the general organisation of the nervous system and how communication occurs within the nervous system.

ULO2: Identify the brain structures critical for movement, sensation, homeostatic function, and learning and memory.

ULO3: Discuss how the nervous system produces movement, processes sensory information, regulates homeostatic function and consolidates learning and memory.

ULO4: Outline the mechanism of action of specific drug classes that affect the functioning of the nervous system.

ULO5: Identify how common pathological conditions affect neural control of movement, sensation, homeostatic function and/or learning and memory.

General Assessment Information

Grade descriptors and other information concerning grading are contained in the [Macquarie University Assessment Policy](#).

All final grades are determined by a grading committee, in accordance with the Macquarie University Assessment Policy, and are not the sole responsibility of the Unit Convenors.

Students will be awarded a final grade and a mark which must correspond to the grade descriptors specified in the [Assessment Procedure](#) (clause 127).

To pass this unit, students must demonstrate sufficient evidence of achievement of the learning outcomes, meet any ungraded requirements, and achieve a final mark of 50 or better.

Further details for each assessment task will be available on iLearn.

Late Submission

Unless a Special Consideration request has been submitted and approved, a 5% penalty (of the total possible mark) will be applied each day a written assessment is not submitted, up until the 7th day (including weekends). After the 7th day, a grade of '0' will be awarded even if the assessment is submitted. Submission time for all written assessments is set at 11.55 pm. A one-hour grace period is provided to students who experience a technical concern.

For example:

Number of days (hours) late	Total possible marks	Deduction	Raw mark	Final mark
1 day (1-24 hours)	100	5	75	70
2 days (24-48 hours)	100	10	75	65
3 days (48-72 hours)	100	15	75	60
7 days (144-168 hours)	100	35	75	40
>7 days (>168 hours)	100	-	75	0

For any late submissions of time-sensitive tasks, such as scheduled tests/exams, performance assessments/presentations, and/or scheduled practical assessments/labs, students need to submit an application for Special Consideration.

Special Consideration

If you are unable to complete an assessment task on or by the specified date due to circumstances that are unexpected, unavoidable, significantly disruptive and beyond your control, you may apply for special consideration in accordance with the [Special Consideration Policy](#). The application for Special Consideration must be lodged either before or no later than five (5) working days after the assessment task due date. All Special Consideration applications must be lodged online via the [Service Connect portal](#) and must include supporting documentary evidence. For exam-style assessments only one (1) opportunity for a supplementary examination will be provided, other than in exceptional circumstances.

Assessment Tasks

Name	Weighting	Hurdle	Due
Learning Resource	20%	No	Week 5 (workshop), Week 6 (review), Week 7 (TurnItIn)
Practical Test	30%	No	Week 11
Final Exam	50%	No	Exam Period

Learning Resource

Assessment Type ¹: Creative work

Indicative Time on Task ²: 12 hours

Due: **Week 5 (workshop), Week 6 (review), Week 7 (TurnItIn)**

Weighting: **20%**

An assessment where students (1) create a learning resource that is made available to their peers to assist with their learning and (2) engage with the learning resources created by their peers.

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- Discuss how the nervous system produces movement, processes sensory information, regulates homeostatic function and consolidates learning and memory.
- Outline the mechanism of action of specific drug classes that affect the functioning of the nervous system.
- Identify how common pathological conditions affect neural control of movement, sensation, homeostatic function and/or learning and memory.

Practical Test

Assessment Type ¹: Quiz/Test

Indicative Time on Task ²: 20 hours

Due: **Week 11**

Weighting: **30%**

On-campus test assessing material covered in and related to anatomy practical sessions.

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- Discuss how the nervous system produces movement, processes sensory information, regulates homeostatic function and consolidates learning and memory.

Final Exam

Assessment Type ¹: Examination

Indicative Time on Task ²: 32 hours

Due: **Exam Period**

Weighting: **50%**

On-campus formal exam assessing content delivered across the session taken during the University examination period.

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- Discuss how the nervous system produces movement, processes sensory information, regulates homeostatic function and consolidates learning and memory.
- Outline the mechanism of action of specific drug classes that affect the functioning of the nervous system.
- Identify how common pathological conditions affect neural control of movement, sensation, homeostatic function and/or learning and memory.

¹ If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the [Writing Centre](#) for academic skills support.

² Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources

As a student enrolled in this unit, you will engage in a range of online and/or face-to-face learning activities, including readings, online modules, tutorial, videos and lectures. Details can be found on the iLearn site for this unit.

Recommended Readings

There are many textbooks available that cover the topics included in this unit. Have a look around which style and delivery works best for you. As a general recommendation we will refer to Bear Connor & Paradiso - Exploring the Brain in this unit.

Technology Used

Active participation in the learning activities throughout the unit will require students to have access to a tablet, laptop or similar device. Students who do not own their own laptop computer may borrow one from the university library.

Unit Schedule

	Topic/Theme	Learning Activities
Week 1	Introduction	Tutorial
Week 2	Organisation of the Nervous System	Online Lecture, Tutorial, Formative Quiz
Week 3	Cells of the Nervous System	Online Lecture, Tutorial, Formative Quiz, Practical

Week 4	Membrane Potential	Online Lecture, Tutorial, Formative Quiz
Week 5	Action Potential	Online Lecture, Tutorial, Formative Quiz, Learning Resource Submission
Week 6	Neurotransmission	Online Lecture, Tutorial, Formative Quiz, Learning Resource Submission
Week 7	Special Senses I	Online Lecture, Tutorial, Formative Quiz, Learning Resource Submission, Practical
Week 8	Special Senses II	Online Lecture, Tutorial, Formative Quiz
Week 9	Somatosensation	Online Lecture, Tutorial, Formative Quiz
Week 10	Movement	Online Lecture, Tutorial, Formative Quiz, Practical
Week 11	Homeostasis	Online Lecture, Tutorial, Formative Quiz
Week 12	Learning and Memory	Online Lecture, Tutorial, Formative Quiz
Week 13	Revision	

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://policies.mq.edu.au\)](https://policies.mq.edu.au). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- [Academic Appeals Policy](#)
- [Academic Integrity Policy](#)
- [Academic Progression Policy](#)
- [Assessment Policy](#)
- [Fitness to Practice Procedure](#)
- [Assessment Procedure](#)
- [Complaints Resolution Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#)

Students seeking more policy resources can visit [Student Policies \(https://students.mq.edu.au/support/study/policies\)](https://students.mq.edu.au/support/study/policies). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

To find other policies relating to Teaching and Learning, visit [Policy Central \(https://policies.mq.edu.au\)](https://policies.mq.edu.au) and use the [search tool](#).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/admin/other-resources/student-conduct>

Results

Results published on platform other than [eStudent](#), (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit connect.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Academic Integrity

At Macquarie, we believe [academic integrity](#) – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free [online writing and maths support](#), [academic skills development](#) and [wellbeing consultations](#).

Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

The Writing Centre

[The Writing Centre](#) provides resources to develop your English language proficiency, academic writing, and communication skills.

- [Workshops](#)
- [Chat with a WriteWISE peer writing leader](#)
- [Access StudyWISE](#)
- [Upload an assignment to Studiosity](#)
- [Complete the Academic Integrity Module](#)

The Library provides online and face to face support to help you find and use relevant information resources.

- [Subject and Research Guides](#)
- [Ask a Librarian](#)

Student Services and Support

Macquarie University offers a range of [Student Support Services](#) including:

- [IT Support](#)
- [Accessibility and disability support](#) with study
- Mental health [support](#)
- [Safety support](#) to respond to bullying, harassment, sexual harassment and sexual assault

- [Social support including information about finances, tenancy and legal issues](#)
- [Student Advocacy](#) provides independent advice on MQ policies, procedures, and processes

Student Enquiries

Got a question? Ask us via the [Service Connect Portal](#), or contact [Service Connect](#).

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.

Changes from Previous Offering

The number of summative assessments has been reduced to ameliorate the concatenation of multiple assessments on student load,

Inclusion and Diversity

Social inclusion at Macquarie University is about giving everyone who has the potential to benefit from higher education the opportunity to study at university, participate in campus life and flourish in their chosen field. The University has made significant moves to promote an equitable, diverse and exciting campus community for the benefit of staff and students. It is your responsibility to contribute towards the development of an inclusive culture and practice in the areas of learning and teaching, research, and service orientation and delivery. As a member of the Macquarie University community, you must not discriminate against or harass others based on their sex, gender, race, marital status, carers' responsibilities, disability, sexual orientation, age, political conviction or religious belief. All staff and students are expected to display appropriate behaviour that is conducive to a healthy learning environment for everyone.

Professionalism

In the Faculty of Medicine, Health and Human Sciences, professionalism is a key capability embedded in all our courses.

As part of developing professionalism, **students are expected to attend all small group interactive sessions**, including clinical, practical, laboratory, work-integrated learning (e.g., PACE placements), and team-based learning activities. Some learning activities are recorded (e.g., face-to-face lectures), however you are encouraged to avoid relying upon such material as they do not recreate the whole learning experience and technical issues can and do occur. As an adult learner, we respect your decision to choose how you engage with your learning, but we would remind you that the learning opportunities we create for you have been done so to enable your success, and that by not engaging you may impact your ability to successfully complete this unit. We equally expect that you show respect for the academic staff who have worked hard to develop meaningful activities and prioritise your learning by communicating with them in advance

if you are unable to attend a small group interactive session.

Another dimension of professionalism is having respect for your peers. It is the right of every student to learn in an environment that is free of disruption and distraction. Please arrive to all learning activities on time, and if you are unavoidably detained, please join the activity as quietly as possible to minimise disruption. Phones and other electronic devices that produce noise and other distractions must be turned off prior to entering class. Where your own device (e.g., laptop) is being used for class-related activities, you are asked to close down all other applications to avoid distraction to you and others. Please treat your fellow students with the utmost respect. If you are uncomfortable participating in any specific activity, please let the relevant academic know.

Unit information based on version 2025.04 of the [Handbook](#)