MEDI2300

Nervous System

Session 1, In person-scheduled-weekday, North Ryde 2022

Medicine, Health and Human Sciences Faculty level units

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General Information

Unit convenor and teaching staff

Unit Convener
Cara Hildreth
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Unit Convener
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Credit points
10

Prerequisites
40cp at 1000 level or above including HLTH108 or ANAT1001

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, available at https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policies/assessment.

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 Convenor.

Students will be awarded a final grade and a mark which must correspond to the grade descriptors specified in the Assessment Procedure (clause 128).

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

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

Student Professionalism

In the Faculty of Medicine and Health 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 tutorials.

Students are expected to attend a minimum of 80% of all small group interactive sessions offered within this unit. If you are unable to attend a small group activity, please refer to the iLearn site regarding what further action should be taken.

Similarly, as part of developing professionalism, students are expected to complete all assessment tasks on or by the specified date. If you are unable to complete an assessment task on or by the specified date, you may be eligible for special consideration. Such applications must be supported by appropriate evidence and submitted via www.ask.mq.edu.au. For further details please refer to the Special Consideration Policy available at https://students.mq.edu.au/study/my-study-program/special-consideration.

Assessment Tasks

Name	Weighting	Hurdle	Due
Quiz	15%	No	Weeks 2-12

Name	Weighting	Hurdle	Due
Learning Resource	15%	No	Weeks 2-12
Anatomy Test	20%	No	Week 12
Final Exam	50%	No	University Examination Period

Quiz

Assessment Type [1]: Participatory task
Indicative Time on Task [2]: 12 hours
Due: **Weeks 2-12**
Weighting: **15%**

Weekly, low-stakes, open-book quiz covering learning material for the week and prepares students for in-class activities. Top six test results count towards final mark.

On successful completion you will be able to:

- Describe the general organisation of the nervous system and how communication occurs within the nervous system.
- Identify the brain structures critical for movement, sensation, homeostatic function, and learning and memory.
- 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.

Learning Resource

Assessment Type [1]: Creative work
Indicative Time on Task [2]: 12 hours
Due: **Weeks 2-12**
Weighting: **15%**

A two-part assessment where students (1) create a collection of learning resources that are made available to their peers to assist with their learning and (2) engage with the learning resources created by their peers.

On successful completion you will be able to:

- Describe the general organisation of the nervous system and how communication occurs within the nervous system.
- Identify the brain structures critical for movement, sensation, homeostatic function, and learning and memory.
- 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.

Anatomy Test

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 20 hours
Due: **Week 12**
Weighting: **20%**

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

On successful completion you will be able to:

- Describe the general organisation of the nervous system and how communication occurs within the nervous system.
- Identify the brain structures critical for movement, sensation, homeostatic function, and learning and memory.
- 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]: 20 hours
Due: **University Examination Period**
Weighting: **50%**

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

On successful completion you will be able to:

- Describe the general organisation of the nervous system and how communication occurs within the nervous system.
- Identify the brain structures critical for movement, sensation, homeostatic function, and learning and memory.
- 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.

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[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

In MEDI2300, you will engage in a range of online and/or face-to-face learning activities, including lectures, tutorials and practicals. Details can be found on the MEDI2300 iLearn site.

Unit Schedule

Week	Lecture Topic	Scheduled Learning Activity	Assessment Task
1	Introduction	Tutorial	None
2	Organisation of the Nervous System	Online Lecture, Tutorial	Weekly Quiz, Learning Resource Submission
3	Cells of the Nervous System	Online Lecture, Tutorial	Weekly Quiz, Learning Resource Submission
4	Membrane Potential	Online Lecture, Tutorial	Weekly Quiz, Learning Resource Submission

Week	Lecture Topic	Scheduled Learning Activity	Assessment Task
5	Action Potential	Online Lecture, Tutorial	Weekly Quiz, Learning Resource Submission
6	Neurotransmission	Online Lecture, Tutorial	Weekly Quiz, Learning Resource Submission
7	Special Senses I	Online Lecture, Tutorial, Practical	Weekly Quiz, Learning Resource Submission
8	Special Senses II	Online Lecture, Tutorial	Weekly Quiz, Learning Resource Submission
9	Somatosensation	Online Lecture, Tutorial, Practical	Weekly Quiz, Learning Resource Submission
10	Movement	Online Lecture, Tutorial, Practical	Weekly Quiz, Learning Resource Submission
11	Homeostasis	Online Lecture, Tutorial	Weekly Quiz, Learning Resource Submission
12	Learning and Memory	Online Lecture, Tutorial	Weekly Quiz, Learning Resource Submission, Practical Test
13	Revision	Online	

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (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). 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) 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 ask.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 Enquiries

Got a question? Ask us via AskMQ, 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.