



MEDI204

Neuroscience 1

S2 Day 2017

Medicine and Health Sciences Faculty level units

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General Information

Unit convenor and teaching staff

Unit Convenor

Cara Hildreth

cara.hildreth@mq.edu.au

Contact via 9850 2721

75 Talavera Road

By appointment

Credit points

3

Prerequisites

Admission to BClinSc and 12cp at 100 level or above

Corequisites

Co-badged status

Unit description

This unit allow students to gain a comprehensive understanding of the organisation of the nervous system, how the nervous system develops and communicates information and the neural control of movement, somatic sensation and homeostatic function. A large emphasis will be placed on the clinical consequences that arise from pathological changes to these systems, with practical sessions aimed at integrating information learnt in lectures with associated pathology.

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:

Describe the organisation of the nervous system and how this relates to the production of movement, perception of somatic sensations and regulation of essential bodily functions.

Discuss the pathological changes that may affect neural control of movement, somatic sensation and homeostatic function and apply this knowledge in a clinical context.

Identify the brain structures critical for movement, sensation and homeostatic function.

Explain the specific function of each brain region and the pathological changes that may affect their function.

General Assessment Information

Grade descriptors and other information concerning grading are contained in the Macquarie University Grading Policy, which is available at: <http://www.mq.edu.au/policy/docs/grading/policy.html>

To pass this unit, students must demonstrate sufficient evidence of achievement of the learning outcomes and complete all assessment tasks.

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

All final grades in the Bachelor of Clinical Science are determined by a grading committee and are not the sole responsibility of the Unit Convenor.

Students will be awarded one of these grades plus a Standardised Numerical Grade (SNG). The SNG is not necessarily a summation of the individual assessment components. The final grade and SNG that are awarded reflect the corresponding grade descriptor in the Grading Policy.

Attendance requirements

Students are required to attend a minimum of 80% of their scheduled learning activities, unless special consideration is granted by the unit convenor. Where a student does not attend a minimum of 80% of classes, they may not be able to pass this unit.

Extensions

Applications for assessment task extensions must be submitted via: www.ask.mq.edu.au.

For further details please refer to the Disruption to Studies Policy available at: http://mq.edu.au/policy/docs/disruption_studies/policy.html

Late Submission

All assignments which are officially received after the due date, and where no extension has been granted, will incur a deduction of 10% for the first day, and 10% for each subsequent day including the actual day on which the work is received. Weekends and public holidays are included. For example:

Due date	Received	Days late	Deduction	Raw mark	Final mark
Fri 14th	Mon 17th	3	30%	75%	45%

Assessment Tasks

Name	Weighting	Hurdle	Due
Practical Spot Test	20%	No	Week 13
Online Quiz	20%	No	Weekly, weeks 2-13
Final Exam	60%	No	University Exam Period

Practical Spot Test

Due: **Week 13**

Weighting: **20%**

In-class neuroanatomy spot test

On successful completion you will be able to:

- Describe the organisation of the nervous system and how this relates to the production of movement, perception of somatic sensations and regulation of essential bodily functions.
- Identify the brain structures critical for movement, sensation and homeostatic function.
- Explain the specific function of each brain region and the pathological changes that may affect their function.

Online Quiz

Due: **Weekly, weeks 2-13**

Weighting: **20%**

Weekly quizzes assessing lecture, tutorial and/or practical material.

On successful completion you will be able to:

- Describe the organisation of the nervous system and how this relates to the production of movement, perception of somatic sensations and regulation of essential bodily functions.
- Discuss the pathological changes that may affect neural control of movement, somatic sensation and homeostatic function and apply this knowledge in a clinical context.
- Explain the specific function of each brain region and the pathological changes that may affect their function.

Final Exam

Due: **University Exam Period**

Weighting: **60%**

Exam composed of multiple choice and/or short answer style questions examining material presented in lectures, tutorials and/or practicals

On successful completion you will be able to:

- Describe the organisation of the nervous system and how this relates to the production of movement, perception of somatic sensations and regulation of essential bodily functions.
- Discuss the pathological changes that may affect neural control of movement, somatic sensation and homeostatic function and apply this knowledge in a clinical context.
- Explain the specific function of each brain region and the pathological changes that may affect their function.

Delivery and Resources

Technology Used

Active participation in the learning activities throughout the unit will generally 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.

Required Unit Materials

All students are required to wear closed shoes and a lab coat/gown to attend practical classes and assessments in a laboratory venue.

Recommended Readings

Unit readings for this unit are available via the university library website.

The recommended texts for this unit include:

1. Bear, M.F., Connors, B.W., and Paradiso, M.A. Neuroscience Exploring the Brain (4th Ed). LWW
2. Kandel, E., Schwartz, J., Jessell, T., Siegelbaum, S., Hudspeth, J., Principles of Neural Science (5th Ed). McGraw-Hill Education - Europe
3. Haines, D.E., Neuroanatomy in Clinical Context: An Atlas of Structures, Sections, Systems, and Syndromes (9th Ed). LWW.

4. Young, P.A., Young, P.H., and Tolbert, D.L. Basic Clinical Neuroscience (3rd Ed). LWW

Policies and Procedures

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

Academic Honesty Policy http://mq.edu.au/policy/docs/academic_honesty/policy.html

Assessment Policy http://mq.edu.au/policy/docs/assessment/policy_2016.html

Grade Appeal Policy <http://mq.edu.au/policy/docs/gradeappeal/policy.html>

Complaint Management Procedure for Students and Members of the Public http://www.mq.edu.au/policy/docs/complaint_management/procedure.html

Disruption to Studies Policy (in effect until Dec 4th, 2017): http://www.mq.edu.au/policy/docs/disruption_studies/policy.html

Special Consideration Policy (in effect from Dec 4th, 2017): <https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policies/special-consideration>

In addition, a number of other policies can be found in the [Learning and Teaching Category](#) of Policy Central.

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/support/student_conduct/

Results

Results shown in *iLearn*, 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.

Student Support

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

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module for Students](#)
- [Ask a Learning Adviser](#)

Student Services and Support

Students with a disability are encouraged to contact the [Disability Service](#) who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

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.

Graduate Capabilities

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

Learning outcomes

- Describe the organisation of the nervous system and how this relates to the production of movement, perception of somatic sensations and regulation of essential bodily functions.
- Discuss the pathological changes that may affect neural control of movement, somatic sensation and homeostatic function and apply this knowledge in a clinical context.
- Identify the brain structures critical for movement, sensation and homeostatic function.
- Explain the specific function of each brain region and the pathological changes that may affect their function.

Assessment tasks

- Practical Spot Test
- Online Quiz
- Final Exam

Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

Learning outcomes

- Describe the organisation of the nervous system and how this relates to the production of movement, perception of somatic sensations and regulation of essential bodily functions.
- Discuss the pathological changes that may affect neural control of movement, somatic sensation and homeostatic function and apply this knowledge in a clinical context.
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