



PSYN855

Neuroanatomy for Neuropsychologists

S1 Day 2019

Department of Psychology

Contents

| | |
|--------------------------------------|----|
| <u>General Information</u> | 2 |
| <u>Learning Outcomes</u> | 2 |
| <u>Assessment Tasks</u> | 3 |
| <u>Delivery and Resources</u> | 5 |
| <u>Policies and Procedures</u> | 6 |
| <u>Graduate Capabilities</u> | 8 |
| <u>Changes since First Published</u> | 11 |

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General Information

Unit convenor and teaching staff

Jenny Batchelor

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Course convenor, lecturer

Heather Francis

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Contact via Email

Room 510, 4 First walk

By appointment

Credit points

4

Prerequisites

Admission to MClInNeuro

Corequisites

Co-badged status

Unit description

In this unit students explore the human brain, and examine the neuroanatomical and behavioural consequences of brain damage. The unit adopts the standard correlative neuroanatomy approach, discussing development of the nervous system and the anatomy of the mature nervous system (the brain stem and associated structures, diencephalon, and telencephalon; blood supply; white matter pathways; ventricles; and meninges). By the end of the unit students are expected to identify, describe the role of structures of the brain and understand the implications of damage to structures of the brain for neuropsychological practice.

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 ways the nervous system is classified and know how this classification system came about

be able to describe the meaning of key terms used in neuroanatomy and neuropsychology

conceptualise the relationship between different components of the same system (e.g., the pyramidal and extra-pyramidal components of the motor system)

identify brain structures (including cortical and subcortical structures and blood vessels)

and explain what is known about their role in producing behaviour

explain the anatomical basis of the disorders commonly seen in clinical practice and uncommon disorders

understand the implications of brain damage for neuropsychological practice

present a critique of a published single case with acquired brain injury

describe the relationship between anatomical findings and pattern of behavioural changes in a published single case study

Assessment Tasks

| Name | Weighting | Hurdle | Due |
|-----------------------------|-----------|--------|---------|
| <u>Critique recent case</u> | 30% | No | various |
| <u>Multiple choice test</u> | 35% | No | 8 April |
| <u>Exam</u> | 35% | No | 3 June |

Critique recent case

Due: **various**

Weighting: **30%**

As a group exercise (n= 4) students will present and critique a recently published single case. Each group will do this once. The single cases have been selected by the course convenor. An important goal is to discuss the cases in an interactive manner. With a little planning and advance preparation, the case presentations can be a stimulating and enjoyable experience for all. Similar to a case conference at a hospital, each group of students will present the case: background to the disorder, detail of the case including the CT or MRI scans, details of the tests conducted and what was found, what conclusions can be drawn. They will also critique the conclusions and comment of what additional data would clarify the conclusions. The remaining students (probably 3 groups of 4) will ask at least two questions.

On successful completion you will be able to:

- conceptualise the relationship between different components of the same system (e.g., the pyramidal and extra-pyramidal components of the motor system)
- identify brain structures (including cortical and subcortical structures and blood vessels)

and explain what is known about their role in producing behaviour

- explain the anatomical basis of the disorders commonly seen in clinical practice and uncommon disorders
- understand the implications of brain damage for neuropsychological practice
- present a critique of a published single case with acquired brain injury
- describe the relationship between anatomical findings and pattern of behavioural changes in a published single case study

Multiple choice test

Due: **8 April**

Weighting: **35%**

There will be a 40 item multiple choice test held on 8th April 2017. Questions will be drawn from the material presented in lectures.

On successful completion you will be able to:

- describe the ways the nervous system is classified and know how this classification system came about
- be able to describe the meaning of key terms used in neuroanatomy and neuropsychology
- conceptualise the relationship between different components of the same system (e.g., the pyramidal and extra-pyramidal components of the motor system)
- identify brain structures (including cortical and subcortical structures and blood vessels) and explain what is known about their role in producing behaviour
- explain the anatomical basis of the disorders commonly seen in clinical practice and uncommon disorders
- understand the implications of brain damage for neuropsychological practice
- present a critique of a published single case with acquired brain injury

Exam

Due: **3 June**

Weighting: **35%**

In this exam you will be required to label photographs of brain structures and answer short answer questions. Questions will be drawn from the material presented in the practical sessions and the lectures.

On successful completion you will be able to:

- describe the ways the nervous system is classified and know how this classification

system came about

- be able to describe the meaning of key terms used in neuroanatomy and neuropsychology
- conceptualise the relationship between different components of the same system (e.g., the pyramidal and extra-pyramidal components of the motor system)
- identify brain structures (including cortical and subcortical structures and blood vessels) and explain what is known about their role in producing behaviour
- explain the anatomical basis of the disorders commonly seen in clinical practice and uncommon disorders
- understand the implications of brain damage for neuropsychological practice
- present a critique of a published single case with acquired brain injury

Delivery and Resources

Lectures and practicals will be held from 10am-1pm.

Schedule:

| Date | Content | Location | Who |
|---------------|-----------|---------------|----------------------|
| 25th February | Lecture | 12 SW, Rm 407 | Dr Heather Francis |
| 3rd March | Lecture | 12 SW, Rm 407 | Dr Heather Francis |
| 11th March | Lecture | 12 SW, Rm 407 | Dr Heather Francis |
| 18th March | Lecture | 12 SW, Rm 407 | Dr Heather Francis |
| 25th March | Lecture | 12 SW, Rm 407 | Dr Heather Francis |
| 1st April | Lecture | 12 SW, Rm 407 | Dr Heather Francis |
| 8th April | Exam | 12 SW, Rm 407 | Dr Heather Francis |
| 13th May | Practical | ASAM | Dr Michael Rodriguez |
| 20th May | Practical | ASAM | Dr Michael Rodriguez |
| 27th May | Practical | ASAM | Dr Michael Rodriguez |
| 3rd June | Exam | 12 SW, Rm 407 | Dr Heather Francis |

Classes

Lectures will be held on the dates above. Case presentations will be held during the last hour of class (except for the first lecture)

Lab/Prac Classes

There are three "prac" sessions to be held in the Australian School of Advanced Medicine (ASAM) from 10-1pm. The neuropathologist teaching the classes is Dr Michael Rodriguez. He

will expect you to ask and answer questions.

The lab is a secure area. To allow us to enter as a group please meet at 9:50 am at the latest at the ASAM entrance [building F10A, opposite the Macquarie University hospital, the building has a large red awning].

Please download the worksheets. It will be helpful to bring something like a clipboard as there are no desks. There are lockers for personal possessions as they cannot be taken into the lab area.

Bring a lab coat if you have one. Disposable gowns and gloves will be provided.

Please wear fully enclosed shoes which cover the dorsal part of the foot (no ballet flats, flip-flops/thongs) and tie long hair back. No photographs or other recording devices are allowed. Follow the instructions of ASAM staff if you are directed in matters of lab safety, protocol or other matters.

No eating or drinking (including chewing gum) is permitted in the lab.

Respect for the dead is expected at all times.

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central) (<https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central>). 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](#)
- [Grade Appeal Policy](#)
- [Complaint Management Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#) (**Note:** *The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.*)

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

If you would like to see all the policies relevant to Learning and Teaching visit [Policy Central](https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central) (<https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/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/study/getting-started/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

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>

If you are a Global MBA student contact globalmba.support@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

PG - Capable of Professional and Personal Judgment and Initiative

Our postgraduates will demonstrate a high standard of discernment and common sense in their professional and personal judgment. They will have the ability to make informed choices and decisions that reflect both the nature of their professional work and their personal perspectives.

This graduate capability is supported by:

Learning outcomes

- present a critique of a published single case with acquired brain injury
- describe the relationship between anatomical findings and pattern of behavioural changes in a published single case study

Assessment task

- Critique recent case

PG - Discipline Knowledge and Skills

Our postgraduates will be able to demonstrate a significantly enhanced depth and breadth of knowledge, scholarly understanding, and specific subject content knowledge in their chosen fields.

This graduate capability is supported by:

Learning outcomes

- describe the ways the nervous system is classified and know how this classification system came about
- be able to describe the meaning of key terms used in neuroanatomy and neuropsychology
- conceptualise the relationship between different components of the same system (e.g., the pyramidal and extra-pyramidal components of the motor system)
- identify brain structures (including cortical and subcortical structures and blood vessels) and explain what is known about their role in producing behaviour
- explain the anatomical basis of the disorders commonly seen in clinical practice and uncommon disorders
- understand the implications of brain damage for neuropsychological practice
- present a critique of a published single case with acquired brain injury
- describe the relationship between anatomical findings and pattern of behavioural changes in a published single case study

Assessment tasks

- Critique recent case
- Multiple choice test
- Exam

PG - Critical, Analytical and Integrative Thinking

Our postgraduates will be capable of utilising and reflecting on prior knowledge and experience, of applying higher level critical thinking skills, and of integrating and synthesising learning and knowledge from a range of sources and environments. A characteristic of this form of thinking is the generation of new, professionally oriented knowledge through personal or group-based critique of practice and theory.

This graduate capability is supported by:

Learning outcomes

- describe the ways the nervous system is classified and know how this classification system came about
- be able to describe the meaning of key terms used in neuroanatomy and neuropsychology
- conceptualise the relationship between different components of the same system (e.g., the pyramidal and extra-pyramidal components of the motor system)
- identify brain structures (including cortical and subcortical structures and blood vessels) and explain what is known about their role in producing behaviour
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- describe the relationship between anatomical findings and pattern of behavioural changes in a published single case study

Assessment tasks

- Critique recent case
- Multiple choice test
- Exam

PG - Research and Problem Solving Capability

Our postgraduates will be capable of systematic enquiry; able to use research skills to create new knowledge that can be applied to real world issues, or contribute to a field of study or practice to enhance society. They will be capable of creative questioning, problem finding and

problem solving.

This graduate capability is supported by:

Learning outcomes

- conceptualise the relationship between different components of the same system (e.g., the pyramidal and extra-pyramidal components of the motor system)
- identify brain structures (including cortical and subcortical structures and blood vessels) and explain what is known about their role in producing behaviour
- explain the anatomical basis of the disorders commonly seen in clinical practice and uncommon disorders
- understand the implications of brain damage for neuropsychological practice
- present a critique of a published single case with acquired brain injury
- describe the relationship between anatomical findings and pattern of behavioural changes in a published single case study

Assessment tasks

- Critique recent case
- Multiple choice test
- Exam

PG - Effective Communication

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:

Learning outcomes

- describe the ways the nervous system is classified and know how this classification system came about
- be able to describe the meaning of key terms used in neuroanatomy and neuropsychology
- identify brain structures (including cortical and subcortical structures and blood vessels) and explain what is known about their role in producing behaviour
- present a critique of a published single case with acquired brain injury
- describe the relationship between anatomical findings and pattern of behavioural changes in a published single case study

Assessment tasks

- Critique recent case
- Exam

PG - Engaged and Responsible, Active and Ethical Citizens

Our postgraduates will be ethically aware and capable of confident transformative action in relation to their professional responsibilities and the wider community. They will have a sense of connectedness with others and country and have a sense of mutual obligation. They will be able to appreciate the impact of their professional roles for social justice and inclusion related to national and global issues

This graduate capability is supported by:

Learning outcomes

- present a critique of a published single case with acquired brain injury
- describe the relationship between anatomical findings and pattern of behavioural changes in a published single case study

Assessment task

- Critique recent case

Changes since First Published

| Date | Description |
|------------|---|
| 21/02/2019 | The previous version had an incorrect time for the practicals, which were previously held from 2-4pm. The unit guide has been updated with the correct time 10am-1pm. |
| 12/02/2019 | The previous version was amended to correct the date for the multiple choice exam (previously incorrectly entered as April 9th and amended in this version to April 8th). |