MEDI303

Neuroscience 2

S1 Day 2019

Medicine and Health Sciences Faculty level units

Contents

General Information	2
Learning Outcomes	2
General Assessment Information	3
Assessment Tasks	4
Delivery and Resources	6
Policies and Procedures	6
Graduate Capabilities	8

General Information

Unit convenor and teaching staff Cara Hildreth cara.hildreth@mq.edu.au
Credit points 3
Prerequisites Admission to BClinSc and (12cp at 100 level) and (6cp at 200 level including MEDI204)
Corequisites
Co-badged status
Unit description In this unit you will expand on the knowledge gained in MEDI204 to explore more complex neural processing. You will learn about the processing required for vision, the sensation of taste and smell, hearing, emotion and behaviour, production and understanding of language, and generation and storage of memory. You will utilise a research approach to deepen our knowledge and understanding of these systems, with a focus on examining pathological changes to the systems.

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 neural processes required for the generation of vision, taste & smell, hearing, emotions & behaviour, language, and memory.

Identify the pathological consequences that result from disruption to the neural processing of vision, taste & smell, hearing, emotions & behaviour, language, and memory.

Relate brain structures to the critical functions of: vision, taste & smell, hearing, emotions & behaviour, language, and memory.

Critically analyse the literature pertaining to a topic related to neural processing of vision, taste & smell, hearing, emotions & behaviour, language, and memory, highlighting the

clinical consequences of such disruption and the current status of medical research on this topic.

Review and discuss the role of discovery in advancing the field of neuroscience in both a clinical and medical research setting.

General Assessment Information

Grade descriptors and other information concerning grading are contained in Schedule 1 of the Macquarie University Assessment Policy, which is available at: https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policies/assessment.

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 a final grade 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.

To pass this unit, students must demonstrate sufficient evidence of achievement of the learning outcomes, attempt all assessment tasks, meet any ungraded requirements including professionalism and achieve an SNG of 50 or better.

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, as well as clinical- and laboratory-based practical sessions.

Furthermore, lectures and seminars are key learning activities that you are expected to attend throughout completion of the B Clinical Science course. While audio recordings and lecture slides may be made available following these large group sessions, it is important to recognise that such resources are a study aid - and should not be considered an alternative to lecture or seminar attendance.

Students who do not maintain adequate attendance (greater than or equal to 80% of scheduled classes) may be deemed unable to meet expectations regarding professionalism and may be referred for disciplinary action (which may include exclusion from assessments and unit failure).

Similarly, as part of developing professionalism, students are expected to submit all work by the due date. Applications for assessment task extensions must be supported by appropriate evidence and submitted via 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

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
Fortnightly online quizzes	15%	No	Fortnightly starting Week 3
Practical spot test	30%	No	Week 7 and 12
Tutorial reports	15%	No	Week 8 and 13
Final Exam	40%	No	University Exam Period

Fortnightly online quizzes

Due: **Fortnightly starting Week 3**
Weighting: **15%**

Six, 30 minute quizzes conducted fortnightly through iLearn. Best 5 attempts are counted.

On successful completion you will be able to:

- Describe the neural processes required for the generation of vision, taste & smell, hearing, emotions & behaviour, language, and memory.
- Identify the pathological consequences that result from disruption to the neural processing of vision, taste & smell, hearing, emotions & behaviour, language, and memory.
- Relate brain structures to the critical functions of: vision, taste & smell, hearing, emotions & behaviour, language, and memory.
- Critically analyse the literature pertaining to a topic related to neural processing of vision, taste & smell, hearing, emotions & behaviour, language, and memory, highlighting the clinical consequences of such disruption and the current status of medical research on this topic.
- Review and discuss the role of discovery in advancing the field of neuroscience in both a

clinical and medical research setting.

Practical spot test

Due: **Week 7 and 12**
Weighting: **30%**

Two neuroanatomy spot test covering material presented in the preceding classes. Each spot test is worth 15% each.

On successful completion you will be able to:

- Relate brain structures to the critical functions of: vision, taste & smell, hearing, emotions & behaviour, language, and memory.

Tutorial reports

Due: **Week 8 and 13**
Weighting: **15%**

A 1000 word report analysing a paper discussed in the tutorial sessions. A draft report is due in week 8 and final report due in week 13.

On successful completion you will be able to:

- Critically analyse the literature pertaining to a topic related to neural processing of vision, taste & smell, hearing, emotions & behaviour, language, and memory, highlighting the clinical consequences of such disruption and the current status of medical research on this topic.
- Review and discuss the role of discovery in advancing the field of neuroscience in both a clinical and medical research setting.

Final Exam

Due: **University Exam Period**
Weighting: **40%**

Exam comprised of multiple choice questions and short answer questions.

On successful completion you will be able to:

- Describe the neural processes required for the generation of vision, taste & smell, hearing, emotions & behaviour, language, and memory.
- Identify the pathological consequences that result from disruption to the neural processing of vision, taste & smell, hearing, emotions & behaviour, language, and memory.

- Relate brain structures to the critical functions of: vision, taste & smell, hearing, emotions & behaviour, language, and memory.

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., Paradiso, M.A., Neuroscience. Exploring the Brain (4th Ed). Wolters Kluwer.
2. Kandel, E., Schwartz, J., Jessell, T., Siegelbaum, S., Hudspeth, J., Principles of Neural Science (5th Ed). McGraw-Hill Education.
3. Crossman, A.R., Neary, D., Neuroanatomy An Illustrated Colour Text (5th Ed). Churchill Livingstone.
4. Haines, D.E., Neuroanatomy in Clinical Context: An Atlas of Structures, Sections, Systems, and Syndromes (9th Ed). LWW.

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). 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). 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).

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

Commitment to Continuous Learning

Our graduates will have enquiring minds and a literate curiosity which will lead them to pursue knowledge for its own sake. They will continue to pursue learning in their careers and as they participate in the world. They will be capable of reflecting on their experiences and relationships with others and the environment, learning from them, and growing - personally, professionally and socially.

This graduate capability is supported by:

Learning outcomes

- Describe the neural processes required for the generation of vision, taste & smell, hearing, emotions & behaviour, language, and memory.
- Relate brain structures to the critical functions of: vision, taste & smell, hearing, emotions & behaviour, language, and memory.

Assessment tasks

- Fortnightly online quizzes
- Practical spot test
- Final Exam

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 neural processes required for the generation of vision, taste & smell,

hearing, emotions & behaviour, language, and memory.
- Identify the pathological consequences that result from disruption to the neural processing of vision, taste & smell, hearing, emotions & behaviour, language, and memory.
- Relate brain structures to the critical functions of: vision, taste & smell, hearing, emotions & behaviour, language, and memory.
- Critically analyse the literature pertaining to a topic related to neural processing of vision, taste & smell, hearing, emotions & behaviour, language, and memory, highlighting the clinical consequences of such disruption and the current status of medical research on this topic.
- Review and discuss the role of discovery in advancing the field of neuroscience in both a clinical and medical research setting.

Assessment tasks

- Fortnightly online quizzes
- Practical spot test
- Tutorial reports
- 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

- Critically analyse the literature pertaining to a topic related to neural processing of vision, taste & smell, hearing, emotions & behaviour, language, and memory, highlighting the clinical consequences of such disruption and the current status of medical research on this topic.
- Review and discuss the role of discovery in advancing the field of neuroscience in both a clinical and medical research setting.

Assessment tasks

- Fortnightly online quizzes
- Tutorial reports

Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

Learning outcomes

- Critically analyse the literature pertaining to a topic related to neural processing of vision, taste & smell, hearing, emotions & behaviour, language, and memory, highlighting the clinical consequences of such disruption and the current status of medical research on this topic.
- Review and discuss the role of discovery in advancing the field of neuroscience in both a clinical and medical research setting.

Assessment tasks

- Fortnightly online quizzes
- Tutorial reports

Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

Learning outcomes

- Critically analyse the literature pertaining to a topic related to neural processing of vision, taste & smell, hearing, emotions & behaviour, language, and memory, highlighting the clinical consequences of such disruption and the current status of medical research on this topic.
- Review and discuss the role of discovery in advancing the field of neuroscience in both a clinical and medical research setting.

Assessment tasks

- Fortnightly online quizzes
- Tutorial reports