MEDI303

Neuroscience 2

S1 Day 2017

Medicine and Health Sciences Faculty level units

Contents

General Information

Unit convenor and teaching staff
Unit Convenor
Cara Hildreth
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Contact via email
Level 1, 75 Talavera Rd
By appointment

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 students you will expand on the knowledge gained in MEDI204. This knowledge will help you to understand the more complex neural 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. Pathological changes that occur to these systems will be explored as well as the medical research strategies utilised to expand our knowledge related to these 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

General 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
Lecture Revision Quizzes	15%	No	Weeks 3, 5, 7, 9, 11, 13
Anatomy Practical Spot Test	30%	No	Weeks 6 and 12
Tutorial Report	15%	No	Week 8 and Week 13
Final Exam	40%	No	TBC

Lecture Revision Quizzes

Due: **Weeks 3, 5, 7, 9, 11, 13**
Weighting: **15%**

These quizzes will provide ongoing assessment of the knowledge you have gained from lectures.

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.

Anatomy Practical Spot Test

Due: **Weeks 6 and 12**

Weighting: **30%**

Two practical tests will be administered in the third and final neuroanatomy practical sessions examining material covered in the preceding two practical sessions. Each test is worth 15% each.

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

Tutorial Report

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

Two short reports that review a journal article discussed in the tutorial sessions. The first tutorial report is worth 5% and the second report 10%.

On successful completion you will be able to:

- Identify the pathological consequences that result from disruption to the neural processing 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.

Final Exam

Due: **TBC**
Weighting: **40%**

A 3 hour exam comprising 50% MCQ and 50% SAQ.

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.

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. Kolb, B., Whishaw, I.Q., Teskey, G.C., An Introduction to Brain and Behaviour (5th Ed). WH Freeman & Co Ltd.
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.

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 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

- Lecture Revision Quizzes
- Anatomy Practical Spot Test
- Tutorial Report
- 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 task

- Tutorial Report

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

- 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

- Anatomy Practical Spot Test
- Tutorial Report

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 outcome

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

Assessment task

- Tutorial Report