



**UNSW**  
THE UNIVERSITY OF NEW SOUTH WALES

**Frontiers in Brain Research**  
**GENM0202**

**Course Outline**  
**Summer session 2011**

Subject authority:

Dr Renée Morris  
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## OBJECTIVES OF THE COURSE

The objectives of this course are:

- a) to introduce the student to the structure and functions of the central nervous system including the brain and spinal cord
- b) to allow the student to explore the current state of knowledge in various areas such as research into mental illness and degenerative disease, plasticity and repair of the nervous system, stem cells research and genetic engineering, etc.

## IMPORTANT NOTES:

- Students must wear enclosed shoes in the dissecting room
- No eating or drinking in the dissection and practicum rooms
- Mobile phone must be switched off during all lectures, laboratories and practicums

## COMMUNICATION

Email is the official means by which the School of Medical Science at UNSW will communicate with you. It is recommended that you check your email every day.

## PLAGIARISM

UNSW does not tolerate plagiarism in submitted written work. Please refer to <https://my.unsw.edu.au/student/atoz/Plagiarism.html> for more details about what constitutes plagiarism.

## APPLICATIONS FOR CONSIDERATION

Students must submit an application for consideration within three working days when sickness, misadventure, or other circumstance beyond their control prevent them from completing a course requirement, attending/submitting assessable work for a course, or significantly affect their performance in assessable work, e.g. formal end of session examination, class test, laboratory test, etc. The form can be downloaded from the URL below:

<https://my.unsw.edu.au/student/academiclife/Forms.html#SpecialConsideration>

## COURSE CO-ORDINATOR AND LECTURERS

Course co-ordinator: Dr. Renée Morris

[renee.morris@unsw.edu.au](mailto:renee.morris@unsw.edu.au)

### Lecturers in the course:

Professor Ken Ashwell

A./Professor Pascal Carrive

Dr. Carol Dobson-Jones

Dr. Kay Double

Dr. Kharen Doyle

Dr. Renée Morris

Dr. Peregrine Osborne

M. Patrick de Permentier

## COURSE STRUCTURE AND TEACHING ACTIVITIES

This is a 3 unit of credit course and consists of:

- 13 lectures. All lectures are held in LG02, Wallace Wurth Building
- 5 laboratory/practicum sessions, in G2/G4 or 101, Wallace Wurth Building
- 2 revision tutorials on laboratory and practicum material and one general tutorial, location(s) to be announced

## LECTURES, PRACTICAL AND TUTORIAL SCHEDULE

### **Week One**

#### **Day 1- Monday 17 January 2011**

9:15 to 9:30 Welcome by Renée Morris  
9:30 to 10:30 Cellular Architecture of the Brain and Spinal Cord /  
Lecture by Ken Ashwell  
10:30 to 11:00 Morning Tea  
11:00 to 12:00 The Developing Nervous System  
Lecture by Ken Ashwell  
12:00 to 1:00 Lunch Break  
1:00 to 2:00 Introduction to the Human Brain and Spinal Cord  
Lecture by Renée Morris  
2:00 to 2:30 Afternoon tea  
2:30 to 4:30 Microscopic Structure of the Spinal Cord  
Laboratory Class by Patrick de Permentier

#### **Day 2- Tuesday 18 January 2011**

9:30 to 10:30 Gender and Asymmetry in the Brain  
Lecture by Ken Ashwell  
10:30 to 11:00 Morning Tea  
11:00 to 12:00 Structure and Function of the Cerebral Cortex  
Lecture by Renée Morris  
12:00 to 1:00 Lunch Break  
1:00 to 3:00 Microscopic Structure of the Cerebrum and the Cerebellum  
Laboratory Class by Patrick de Permentier  
3:00 to 3:30 Afternoon Tea  
3:30 to 4:30 Revision Tutorial

#### **Day 3- Wednesday 19 January 2011**

**NO CLASSES – STUDY DAY**

#### **Day 4- Thursday 20 January 2011**

9:30 to 10:30 QUIZZ  
10:30 to 11:00 Morning Tea  
11:00 to 12:00 TBA  
12:00 to 1:00 Lunch Break  
1:00 to 2:00 Plasticity and the Brain  
Lecture by Renée Morris  
2:00 to 2:30 Afternoon Tea  
2:30 to 4:30 Introduction to the Human Brain and Spinal Cord

#### **Day 5- Friday 21 January 2011**

9:30 to 10:30 Using Genes to Understand Brain: Genetics in Neuroscience

Lecture by Carol Dobson-Jones  
10:30 to 11:00 Morning Tea  
11:00 to 12:00 Stem Cell-Based Therapy for Neurodegenerative Disease  
Lecture by Kharen Doyle  
12:00 to 1:00 Lunch Break  
1:00 to 3:00 Perception lab  
3:00 to 3:30 Afternoon Tea  
3:30 to 4:30 Revision Tutorial

## **Week Two**

### **Day 6- Monday 24 January 2011**

9:30 to 10:30 QUIZZ  
10:30 to 11:00 Morning Tea  
11:00 to 12:00 Spinal Cord Injury: Can we go Forward?  
Lecture by Renée Morris  
12:00 to 1:00 Lunch Break  
1:00 to 3:00 Brain Disease Practicum

### **Day 7- Tuesday 25 January 2011**

9:30 to 10:30 Neurodegenerative diseases  
Lecture by Kay Double  
10:30 to 11:00 Morning Tea  
11:00 to 12:00 Is there a Biological Basis for Mental Illness?  
Lecturer TBA  
12:00 to 1:00 Lunch Break  
1:00 to 2:00 The emotional brain  
Lecture by Pascal Carrive  
2:00 to 2:30 Afternoon Tea  
2:30 to 3:30 Final Tutorial

### **Day 8- Wednesday 26 January 2011**

**NO CLASSES – AUSTRALIA DAY**

### **Day 9 – Thursday 27 January**

**NO CLASSES – STUDY DAY**

### **Day 10- Friday 28 January 2011**

9:30 to 11:30 Final Exam

## **ASSESSMENT PROCEDURE**

There will be two assessment sessions each consisting of 30 MCQs (20% of final mark each), one short essay-type final exam (30 % of final mark) and one 1,500 word assignment (30% of final mark).