



UNSW
THE UNIVERSITY OF NEW SOUTH WALES

Frontiers in Neuroscience
GENM0202

Course Outline
Summer session 2012

Monday 9 January to Wednesday 25 January

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 Sciences 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.

ATTENDANCE

Students are expected to be regular and punctual in attendance at all classes in the course. Please note that attendance will be recorded for practical classes and students are expected to attend at least 80% of these practicums.

APPLICATIONS FOR CONSIDERATION

Students must submit an application for consideration within three working days when sickness or circumstance beyond their control prevent them from completing a course requirement or significantly affect their performance in examination, class test, laboratory test, etc. The form can be downloaded from:

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

LECTURERS

Professor Ken Ashwell
Mr. Andrew Tosolini
Dr. Renée Morris
A./Professor Matthias Klugmann
Dr. Amanda Craig
Dr. Penelope McNulty
Dr. Carol Dobson-Jones
Dr. Kharen Doyle
Dr. Gila Moalem Taylor
A./Professor Pascal Carrive
Dr. Tim Karl
A./Professor Kay Double
Professor Cindy Shannon Weickert

Practical classes will be under the authority of Mrs. Patrick de Permentier and Andrew Tosolini.

COURSE STRUCTURE AND TEACHING ACTIVITIES

This is a 6 unit of credit course and consists of:

- 20 lectures. All lectures are held in LG03, 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

ASSESSMENT PROCEDURE

There will be three quizzes each consisting of 30 MCQs (20% of final mark each) and one short answer-type final exam (40 % of final mark).

LECTURES, PRACTICAL CLASSES AND TUTORIAL SCHEDULE

Week One

Day 1- Monday 9 January 2012

- 9:30 to 10:00 Welcome by Dr. Renée Morris
10:00 to 11:00 Cellular Architecture of the Brain and Spinal Cord
Lecture by Prof. Ken Ashwell
11:00 to 11:30 Morning Tea
11:30 to 12:30 Introduction to the Human Brain and Spinal Cord
Lecture by Andrew Tosolini
12:30 to 1:30 Lunch
1:30 to 3:30 Microscopic Structure of the Spinal Cord
Laboratory Class by Patrick de Permentier

Day 2- Tuesday 10 January 2012

- 10:00 to 11:00 The Developing Nervous System
Lecture by Prof Ken Ashwell
11:00 to 11:30 Morning Tea
11:30 to 12:30 Left Brain, Right Brain: What is the Difference?
Lecture by Prof Ken Ashwell
12:30 to 1:30 Lunch
1:30 to 3:30 Microscopic Structure of the Cerebrum and the Cerebellum
Laboratory Class by Patrick de Permentier

Day 3- Wednesday 11 January 2012

- 10:00 to 11:00 Revision Tutorial
Andrew Tosolini
11:00 to 11:30 Morning Tea
11:30 to 12:30 Functional Localisation within the Cerebral Cortex 1
Lecture by Dr. Renée Morris
12:30 to 1:30 Lunch
1:30 to 3:30 Introduction to the Human Brain and Spinal Cord
Andrew Tosolini and other tutors

Day 4- Thursday 12 January 2012

NO CLASSES – STUDY DAY

Day 5- Friday 13 January 2012

- 10:00 to 11:00 QUIZ
11:00 to 11:30 Morning Tea/ Quiz Debrief

11:30 to 12:30 Functional Localisation within the Cerebral Cortex 2
Lecture by Dr. Renée Morris
12:30 to 1:30 Lunch
1:30 to 2:30 What is Multiple Sclerosis?
Lecture by A/Prof. Arun Krishnan

2:30 to 3:30 Plasticity and the Brain
Lecture by Dr. Renée Morris

Week Two

Day 6- Monday 16 January 2012

10:00 to 11:00 Title TBA
Lecture by A/Prof. Matthias Klugmann
11:00 to 11:30 Morning Tea
11:30 to 12:30 Spinal Cord Injury: Can we go Forward?
Lecture by Dr. Renée Morris
12:30 to 1:30 Lunch
1:30 to 3:30 Perception lab
Andrew Tosolini and other tutors

Day 7- Tuesday 17 January 2012

10:00 to 11:00 Stroke: An Epic Tale of Death, Disability, and the Pivotal Penumbra
Lecture by Dr. Amanda Craig
11:00 to 11:30 Morning Tea
11:30 to 12:30 Title TBA
Lecture by Dr. Penelope McNulty
12:30 to 1:30 Lunch
1:30 to 3:30 Brain Disease Lab
Andrew Tosolini and other tutors

Day 8- Wednesday 18 January 2012

10:00 to 11:00 Using Genes to Understand Brain: Genetics in Neuroscience
Lecture by Dr. Carol Dobson-Jones
11:00 to 11:30 Morning Tea
11:30 to 12:30 Stem Cell-Based Therapy for Neurodegenerative Disease
Lecture by Dr. Kharen Doyle
12:30 to 1:30 Lunch
1:30 to 2:30 Title TBA
Lecture by Dr. Gila Moalem Taylor
2:30 to 3:30 Revision Tutorial
Andrew Tosolini

Day 9- Thursday 19 January 2012

NO CLASSES – STUDY DAY

Day 10- Friday 20 January 2012

9:30 to 11:00 QUIZ
11:00 to 11:30 Morning Tea/ Quiz Debrief
11:30 to 12:30 The Emotional Brain
Lecture by A/Prof. Pascal Carrive
12:30 to 1:30 Lunch
1:30 to 2:30 Cannabinoid in Schizophrenia

2:30 to 3:30 Lecture by Dr. Tim Karl
 TBA

Week Three

Day 10- Monday 23 January 2012

10:00 to 11:00 Neurodegenerative diseases
 Lecture by A/Prof. Kay Double
11:00 to 11:30 Morning Tea
11:30 to 12:30 Mental Illness
 Lecture by Prof. Cindy Shannon- Weickert
12:30 to 2:00 Lunch
2:00 to 3:30 Quiz

Day 11- Tuesday 24 January 2012

NO CLASSES – STUDY DAY

Day 12 – Wednesday 25 January 2012

10:00 to 12:00 Final Exam