



**UNSW**  
AUSTRALIA

Medical Sciences  
Medicine

**NEUR3211**

**RESEARCH TOPICS IN  
NEUROSCIENCES**

**COURSE OUTLINE  
SESSION 2, 2015**

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Please read this manual/outline in conjunction with the following pages on the

[School of Medical Sciences website:](#)

- [Advice for Students](#)
- [Learning Resources](#)

(or see "STUDENTS" tab at [medicalsciences.med.unsw.edu.au](http://medicalsciences.med.unsw.edu.au) )

### **COURSE COORDINATOR**

- The coordinator of the course is Dr Pascal CARRIVE, Associate Professor in the Department of Anatomy, School of Medical Sciences. The lecturers involved in the course will vary each year. Their names and contact emails are shown in the Course schedule section.
- Contacts for Dr Carrive:
  - Office: Wallace Wurth Building, Level 3E, Room 328
  - Tel: 9385 2467
  - email: p.carrive@unsw.edu.au

### **COURSE DETAILS**

- Unit of Credits: 6
- Undergraduate course, Year 3, Session 2
- Prerequisite: ANAT3411 or NEUR 3121 or another equivalent (contact course coordinator)
- Venue: Lecture theatre LG02, Wallace Wurth Building

### **COURSE AIMS**

- Expose the students to a broad range of research topics in the neurosciences. These topics will be presented by UNSW neuroscientists actively involved in research.
- Prepare 3<sup>rd</sup> year students for Honours in Neuroscience

### **STUDENT LEARNING OUTCOMES**

- awareness of neuroscience research at UNSW
- broader knowledge in Neurosciences
- understanding of the scientific method
- ability to read and understand scientific literature in neurosciences
- ability to present orally research papers
- ability to write scientific essays
- experience in a research laboratory

### **RATIONALE BEHIND THE COURSE APPROACH TO LEARNING AND TEACHING**

- Third year students should be mature enough to learn independently. The aim of this course is to expose them to a wide range of topics to expand their knowledge and raise their interests in neurosciences. The coordinator of the course will provide regular feedback on their ability to think critically, present orally and write essays.

## TEACHING STRATEGIES

- The course is taught in a seminar format with a single 3-hour session each Wednesday afternoon (2-5 pm; WW LG02). The session commences with a 1.5-2 hours lecture. This is followed by a coffee break. Students then present research papers they have chosen from a list given to them 2 weeks earlier. The papers are related to the topic of the session and will be assessed partly by the lecturer of the day, partly by the course coordinator. There will be approximately 2-3 presentations per session, depending on the number of students in the course.
- The lecturers are researchers within the School and its affiliated centres. They will contribute with their special expertise to the topics proposed. We do not attempt to comprehensively cover all areas of neuroscience but rather to concentrate on areas of current research interest and expertise. One aim of this course is to prepare students for Honours in Neurosciences.

## RESOURCES FOR STUDENTS

- There is no specific textbook for this course. However, if students want to purchase a textbook, the recommended one is “Principles in Neural Sciences”, Fourth Edition by E.R. Kandel, J.H. Schwartz and T.M. Jessell. Published by McGraw-Hill
- The main resource is Ovid Medline, accessible via the UNSW library  
[LIBRARY.UNSW.EDU.AU](http://LIBRARY.UNSW.EDU.AU)

## OTHER MATTERS

- Regular attendance, arriving on time at the beginning of the session and interaction are primordial. These will be taken into account in the Participation mark (element E in the Assessment)
- Students must be aware of and adhere to Occupational Health and Safety rules in the laboratories where they will conduct their Research Project.
- Equity and diversity: students who have a disability that requires some adjustment in their learning and teaching environment are encouraged to discuss their study needs with the course coordinator prior to, or at the commencement of the course. See also [STUDENTEQUITY.UNSW.EDU.AU](http://STUDENTEQUITY.UNSW.EDU.AU)

## COURSE EVALUATION AND DEVELOPMENT

A course evaluation form will be distributed on the last day of the course. Constructive feedback is important to fulfil the needs and desires of the students and to identify strength and pitfalls of the course.

## ASSESSMENT

The assessment is continuous throughout the semester and consists of five elements with different weights (see below). There is no final exam.

Presentations during sessions. 30%

Each student will give 2-3 PowerPoint presentations throughout the course, describing and discussing published studies. Each talk should not exceed 10 mins, followed by 5 mins for questions. Students will be marked on the clarity of their presentation of the aims; methods results and conclusion of the paper; their understanding of the topic (as evidenced by their presentation and answers to questions); appropriate use of diagrams and illustrations; keeping to time; critical appraisal of the paper and its strengths and weaknesses; and ideas for further studies worth undertaking.

Scientific Essay 20%

Students can choose from a number of essay topics which will be circulated. Essays should not be more than 3000 words in length and are due on October 13 (week 10 of the course). There will be a penalty -1 mark per day - for entries after the deadline. Essays will be marked by the contributing lecturers and the course coordinator.

Creative or Critical Essay 20%

Students will have to write an essay on a neuroscience related topic that will be decided by the course coordinator. Not more than 3000 words. The essay is due one week after the last session, on November 3 (same penalty as above).

Project 20%

The students will choose a research project from those offered by the lecturers of the course. They will spend a minimum of 10 hours in the chosen laboratory witnessing or participating in experiments. The projects will be presented as posters (done in PowerPoint) in front of the class during the last session on October 27. It is not important that the experiment 'works' but that the students understand the problem, the methods used, and that they discuss the study critically.

Participation in class 10%

Interaction is important in this course. Students are expected to attend all classes and interact with the lecturers. In addition, they are expected to ask questions of fellow students after their presentations. This will account for 10% of the total mark.

## ACADEMIC HONESTY AND PLAGIARISM

Plagiarism is not acceptable and will be checked with Turnitin.

See also: [STUDENT.UNSW.EDU.AU/PLAGIARISM](http://STUDENT.UNSW.EDU.AU/PLAGIARISM)

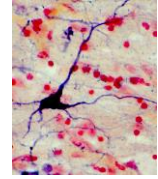
COURSE SCHEDULE



NEUR 3211 2015

RESEARCH TOPICS IN NEUROSCIENCE

Wednesdays 2-5pm, in WW: LG03 or G16.



<b>Jul 28</b>	<b>Pascal Carrive</b>	Introduction: Course outline
<b>Aug 4</b>	<b>Matthias Klugmann</b>	Gene Therapy for the treatment of neurological disorders.
<b>Aug 11</b>	<b>Gary Housley</b>	Development of the afferent and efferent innervations of the cochlea.
<b>Aug 18</b>	<b>Thomas Fath</b>	Building complex neuronal networks – cell intrinsic mechanisms of neurite formation.
<b>Aug 25</b>	<b>Renee Morris</b>	Spinal cord injury and regeneration
<b>Sept 1</b>	<b>Gila Moalem-Taylor</b>	Neuro-immune crosstalk in nervous system disorders and pathological pain.
<b>Sept 8</b>	<b>Pascal Carrive</b>	Brain control of cardiovascular function. Homeostatic regulation and emotions
<b>Sept 15</b>	<b>Scott Kim</b>	Cholesterol, ABC transporters and Alzheimer's disease
<b>Sept 22</b>	<b>Caroline Rae</b>	Imaging in Neurosciences
<b>Sept 29</b>	<b>Mid session break</b>	
<b>Oct 6</b>	<b>Week off (convenor away)</b>	
<b>Oct 13</b>	<b>Rhoshel Lenroot</b>	"My brain made me do it".... The neurobiology of aggressive behaviour
<b>Oct 20</b>	<b>Tim Karl</b>	Schizophrenia and gene-environment interactions.
<b>Oct 27</b>	<b>Students poster presentations</b>	

*Course Coordinator:*

A/Prof Pascal Carrive  
WW 3E Room 328

Anatomy, SoMS  
ext 52467

[P.CARRIVE@UNSW.EDU.AU](mailto:P.CARRIVE@UNSW.EDU.AU)

*Contributing Lecturers:*

Prof Ken Ashwell

Anatomy, SoMS

[K.ASHWELL@UNSW.EDU.AU](mailto:K.ASHWELL@UNSW.EDU.AU)

A/Prof M. Klugmann

Physiology, SoMS

[M.KLUGMANN@UNSW.EDU.AU](mailto:M.KLUGMANN@UNSW.EDU.AU)

Prof Gary Housley

Physiology, SoMS

[G.HOUSLEY@UNSW.EDU.AU](mailto:G.HOUSLEY@UNSW.EDU.AU)

Dr Gila Moalem-Taylor

Physiology, SoMS

[GILA@UNSW.EDU.AU](mailto:GILA@UNSW.EDU.AU)

Dr Renee Morris

Physiology, SoMS

[RENEE.MORRIS@UNSW.EDU.AU](mailto:RENEE.MORRIS@UNSW.EDU.AU)

Dr Thomas Fath

Anatomy, SoMS

[T.FATH@UNSW.EDU.AU](mailto:T.FATH@UNSW.EDU.AU)

Dr Tim Karl

NeuRA

[T.KARL@NEURA.EDU.AU](mailto:T.KARL@NEURA.EDU.AU)

Prof Caroline Rae

NeuRA

[C.RAE@NEURA.EDU.AU](mailto:C.RAE@NEURA.EDU.AU)

Prof Rhoshel Lenroot

NeuRA

[R.LENROOT@NEURA.EDU.AU](mailto:R.LENROOT@NEURA.EDU.AU)

Dr Scott Kim

NeuRA

[W.KIM@UNSW.EDU.AU](mailto:W.KIM@UNSW.EDU.AU)

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1. I have enjoyed doing this course:  
strongly agree      agree      undecided      disagree      strongly disagree

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  2. The 3 sessions I enjoyed most were:  
.....  
.....

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  3. Were the topics covered in the course broad enough? Were there areas that you would have liked covered?

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  4. Do you feel that you have gained much knowledge in Neurosciences?

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  5. Is the seminar format of the course appropriate for learning new material?

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  6. Is continuous assessment better than a final exam?

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  7. Did you find the research project useful or interesting? Did it give you an idea of what research might be like?

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  8. Was there a good balance between the oral and written assessments?

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  9. Did you read the papers before the session?      Yes      No      Only the abstract.  
How much time did you spend reading the papers?

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  10. Has the course improved your oral presentation skills?

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  11. Has the course improved your reading/writing skills?

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  12. What were the best aspects of the course (other than biscuits)?

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  13. Will you do Honours at UNSW next year? If yes, will it be in Neurosciences?

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  14. Any suggestions for improvement/changes:

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