

Neuroscience

| Year and Campus: | 2014 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Coordinator: | Dr Peter Kitchener Department of Anatomy and Neuroscience | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Contact: | Email: pkitc@unimelb.edu.au (mailto:pkitc@unimelb.edu.au) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Overview: | It is expected that students completing this Major will understand the fundamental organisational and functional principles of the nervous system: from the biology of nerve cells and neural circuits through to neural systems and ultimately to complex behaviours like thought and emotion. From the two core subjects students will gain an overview of the breath of modern neuroscience to see how a spectrum of science disciplines (such as Cell and Molecular Biology, Pharmacology, Physiology, Zoology and Anatomy) contribute to our understanding of nervous system function. This will also reveal how Neuroscience overlaps with related areas of study, such as Cognitive Science, Psychology and Medicine. Areas of study include how perceptual and motor systems are organised, the crucial role of the nervous system in the regulation of the internal environment of the body, how the nervous system develops, how it has evolved, and the effects of injury, disease and abuse. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Learning Outcomes: | The objectives of the major in Neuroscience include the education of students to appreciate the interrelationship of ideas and technologies in multi-disciplinary science, and how complex scientific problems can be approached and analysed. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Structure & Available Subjects: | Completion of 50 points of study at Level 3. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subject Options: | <p>Both of</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>NEUR30003 Principles of Neuroscience</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>NEUR30002 Neurophysiology: Neurons and Circuits</td> <td>Semester 1</td> <td>12.50</td> </tr> </tbody> </table> <p>Plus two electives selected from</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>NEUR30005 Developmental Neurobiology</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>NEUR30004 Sensation Movement and Complex Functions</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>OPTO30007 Visual Neuroscience</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>PHRM30002 Drugs Affecting the Nervous System</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>BCMB30004 Cell Signalling and Neurochemistry</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>BIOM30003 Biomedical Science Research Project</td> <td>Summer Term, Semester 1, Semester 2</td> <td>12.50</td> </tr> </tbody> </table> | Subject | Study Period Commencement: | Credit Points: | NEUR30003 Principles of Neuroscience | Semester 1 | 12.50 | NEUR30002 Neurophysiology: Neurons and Circuits | Semester 1 | 12.50 | Subject | Study Period Commencement: | Credit Points: | NEUR30005 Developmental Neurobiology | Semester 2 | 12.50 | NEUR30004 Sensation Movement and Complex Functions | Semester 2 | 12.50 | OPTO30007 Visual Neuroscience | Semester 2 | 12.50 | PHRM30002 Drugs Affecting the Nervous System | Semester 2 | 12.50 | BCMB30004 Cell Signalling and Neurochemistry | Semester 2 | 12.50 | BIOM30003 Biomedical Science Research Project | Summer Term, Semester 1, Semester 2 | 12.50 |
| Subject | Study Period Commencement: | Credit Points: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NEUR30003 Principles of Neuroscience | Semester 1 | 12.50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NEUR30002 Neurophysiology: Neurons and Circuits | Semester 1 | 12.50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| NEUR30005 Developmental Neurobiology | Semester 2 | 12.50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NEUR30004 Sensation Movement and Complex Functions | Semester 2 | 12.50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Notes: | This major is available to new generation Bachelor of Science students (B-SCI) and Bachelor of Biomedicine students. It is also available to Bachelor of Science students who commenced prior to 2008. The published structure of this major includes subjects available in the current year. Pre-2008 Bachelor of Science students who completed one or more Level 3 science subjects towards this major prior to 2010 should contact the Science Student Centre for advice on appropriate subjects to complete this major. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Related Course(s): | Bachelor of Arts and Bachelor of Science Bachelor of Biomedicine | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Bachelor of Commerce and Bachelor of Science
Bachelor of Science