# Neuroscience

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| **Year and Campus:** | 2010 |
| **Coordinator:** | Dr Peter KitchenerDepartment of Anatomy and Cell Biology |
| **Contact:** | pkitch@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. |
| **Objectives:** | # It is expected that students completing this Major should 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.<br># 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.<br># A Major in Neuroscience should allow students to appreciate the interrelationship of ideas and technologies in multi-disciplinary science, and how complex scientific problems can be approached and analysed.<br># Students will be exposed to the breadth of modern Neuroscience to see how a spectrum of science disciplines contribute to our understanding of nervous system function, and how Neuroscience overlaps with related areas of study, such as Cognitive Science, Psychology and Medicine. |
| **Structure & Available Subjects:** | Completion of 50 points of study at third year level |
| **Subject Options:** | Both of |

| Subject | Study Period Commencement: | Credit Points: |
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| NEUR30003 Principles of Neuroscience | Semester 1 | 12.50 |
| NEUR30002 Neurophysiology: Neurons and Circuits | Semester 1 | 12.50 |

Plus two electives selected from

| Subject | Study Period Commencement: | Credit Points: |
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| 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 |

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| **Related Course(s):** | Bachelor of Science |