516-306 Developmental Neurobiology

Credit Points:	12.50
Level:	3 (Undergraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: Semester 1, - Taught on campus.
Time Commitment:	Contact Hours: 36 lectures (three 1-hour lectures per week) Total Time Commitment: 120 hours
Prerequisites:	Anatomy 516-201 plus 516-209.BBiomedSc students: 521-213 and 536-250.
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	It is University policy to take all reasonable steps to minimise the impact of disability upon academic study and reasonable steps will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact upon their active and safe participation in a subject are encouraged to discuss this with the relevant subject coordinator and the Disability Liaison Unit.
Coordinator:	Assoc Prof Paul Whitington
Subject Overview:	On completion of this subject, students should: # appreciate the major processes involved in the development of the nervous system, including neural induction, neural patterning, neural and glial cell proliferation, determination of neural fate, neuronal migration, axon guidance, regulation of neuron survival and synaptogenesis; # have gained some insights into the cellular and molecular basis of those processes and understand how disorders in developmental processes can lead to neural defects; # be aware of the regenerative ability of the nervous system and the prospects for therapeutic treatment of neural injury and disease; # be familiar with outstanding questions currently being addressed in research in neural development; and # be familiar with modern experimental approaches used to investigate the development of the nervous system and appreciate their strengths and limitations.
Assessment:	A 45-minute written class test during the semester (15%); a 2000-word essay due during the semester (20%); a 2-hour written examination in the examination period (65%).
Prescribed Texts:	None
Recommended Texts:	# **Principles of Neural Science** (Kandel, Schwartz and Jessell), 4th ed # **Development of the Nervous System** (B Sanes et al), 2nd ed, 2006
Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: # **Bachelor of Arts (https://handbook.unimelb.edu.au/view/2009/D09)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2009/F04)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2009/A04)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2009/M05)**

	You should visit **learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html)** and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	This subject will help students develop the following generic skills: # critical analysis of scientific research papers; # literature searching skills; # capacity for independent critical thought, rational enquiry and self-directed learning; # ability to plan work and use time effectively; and # ability to sythesise apparently disparate types of knowledge.
Notes:	Students enrolled in the BSc (pre-2008 BSc), BASc or a combined BSc course will receive science credit for the completion of this subject. This subject is likely to be quota-restricted this year.
Related Course(s):	Bachelor of Biomedical Science
Related Majors/Minors/ Specialisations:	Anatomy Cell Biology Neuroscience Reproduction and Development