

## PHTY20004 Sensorimotor Control Systems

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| <b>Credit Points:</b>                    | 25  |
| <b>Level:</b>                            | 2 (Undergraduate)   |
| <b>Dates &amp; Locations:</b>            | 2010, Parkville<br>This subject commences in the following study period/s:<br>Semester 2, Parkville - Taught on campus.   |
| <b>Time Commitment:</b>                  | Contact Hours: 62 hours lectures, 32 hours problem-based learning, 28 hours practical classes<br>Total Time Commitment: Students will need to allow time for self-directed learning. The following hours are given as minimum requirements: 1 hour pre/post reading for lectures, 2 hours per hour of tutorial sessions and 2 hours extra per week for practical classes.   |
| <b>Prerequisites:</b>                    | This subject is not available as a single subject. Students must be currently enrolled in the Bachelor of Physiotherapy to undertake this subject.  |
| <b>Corequisites:</b>                     | None  |
| <b>Recommended Background Knowledge:</b> | Year 1 and Semester 1 of Year 2 of the Bachelor of Physiotherapy.   |
| <b>Non Allowed Subjects:</b>             | None  |
| <b>Core Participation Requirements:</b>  | None  |
| <b>Coordinator:</b>                      | Ms Marilyn Webster  |
| <b>Contact:</b>                          | Dr Rana Shane Hinman  |
| <b>Subject Overview:</b>                 | This subject comprises two major areas of study: neuroscience and vertebral anatomy. The objective of this subject is to enable students to develop an understanding of the structure/function relationships in the central nervous system, spinal cord and vertebral column, and the effect of ageing and pathology on functioning of the nervous system and spine. Content areas included are the development and organisation of the nervous system, brainstem function, motorcontrol systems, sensory systems, the biochemical and pharmacological mechanisms of the central nervous system, and the structure and function of the vertebral column.  |
| <b>Objectives:</b>                       | In undertaking this subject, students will have an opportunity to: <ul style="list-style-type: none"> <li># Develop an understanding of the structure, function, biochemical and pharmacological mechanisms of the central and peripheral nervous systems in health and disease</li> <li># Examine in detail the major neural functional systems – peripheral nerves, sensory processing, control of voluntary movement, autonomic control, and higher brain functions</li> <li># Integrate neuroanatomy with topographic anatomy of the head, neck and spine</li> <li># Apply this theoretical knowledge to understanding the physical examination of peripheral nerves, the central nervous system, and regions of the head and neck</li> </ul> |
| <b>Assessment:</b>                       | Mid-semester quiz (10%), tutor assessment (5%); written examinations up to four hours (65%); and practical examination (20%).   |
| <b>Prescribed Texts:</b>                 | None  |
| <b>Breadth Options:</b>                  | This subject is not available as a breadth subject.   |
| <b>Fees Information:</b>                 | Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>   |
| <b>Related Course(s):</b>                | Bachelor of Physiotherapy   |