

**UNIT OUTLINE**

**Unit Code: HB343**

**Unit Title: Neuroscience and Human Behaviour**

**Semester: S**

**Year: 2020**

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| **Unit code** | HB343 | | |
| **Unit name** | Neuroscience and Human Behaviour | | |
| **Associated higher education awards** | Bachelor of Applied Social Science | | |
| **Duration** | One semester | | |
| **Level** | Advanced | | |
| **Unit Coordinator** | Dr John Meteyard | | |
| **Core/Elective** | Elective  Required for Human Behaviour specialisation | | |
| **Weighting** | Unit credit points: 10  Course credit points: 240 | | |
| **Student workload** | *Face-to-face on site*  Contact hours  Reading, study, and preparation  Assignment preparation  TOTAL  *External*  Engagement with study materials  Assignment preparation  TOTAL | | 39 hours  59 hours  52 hours  150 hours  90 hours  60 hours  150 hours |
| Students requiring additional English language support are expected to undertake an additional one hour per week. | | |
| **Delivery mode** | Face-to-face on site  External | | |
| **Prerequisites/ Corequisites/ Restrictions** | *Prerequisites*  50 credit points of Social Sciences units, including  SO111 Introduction to Human Behaviour | | |
| **Rationale** | Recent scientific and technological advances have resulted in a rapid increase in knowledge concerning the neurobiological basis of a wide range of human behaviours and experiences. These findings have significant implications for applied social sciences practitioners seeking to understand and effectively respond to clients exhibiting a wide range of both typical and atypical behaviours.  This unit will introduce students to the present state of knowledge in the field of cognitive and behavioural neuroscience, including research methods, major findings, current controversies, and Christian worldview implications. Particular attention will be given to how applied social sciences professionals can apply these understandings in order to enhance their practice in a wide range of people-helping fields. | | |
| **Prescribed text(s)** | Pinel, J. (2013). *Biopsychology* (9th ed.). Boston, MA: Pearson. | | |
| **Recommended readings** | **Books**  Beaumont, J. G. (2008). *Introduction to neuropsychology* (2nd ed.). New York, NY: Guilford Press.  Heilman, K., & Valenstein, E. (Eds.).(2011). *Clinical neuropsychology* (5th ed.). UK: Oxford University.  Jeeves, M., & Brown, W. (2009). *Neuroscience, psychology and religion*. West Conshohocken, PA: Templeton Foundation.  Joseph, R. (2011). *Neuroscience: Neuropsychology, neuropsychiatry, brain and mind* (4th ed.). USA: Cosmology Science.  Kolb, B., & Whishaw, I. (2008). *Fundamentals of human neuropsychology.* New York, NY: Worth.  Kolb, B., & Whishaw, I. (2009). *An introduction to brain and behaviour* (4th ed.). New York, NY: Worth.  Marcotte, T., & Grant, I. (Eds.). (2010). *Neuropsychology of everyday functioning.* New York, NY: Guilford Press.  **Journals**  *Journal of the international Neuropsychological Association*  *Journal of Neuropsychology*  *Journal of Psychology and Theology*  In addition to the resources above, students should have access to a Bible, preferably a modern translation such as The Holy Bible: The New International Version 2011 (NIV 2011) or The Holy Bible: New King James Version (NKJV).  These and other translations may be accessed free on-line at http://www.biblegateway.com. The Bible app from LifeChurch.tv is also available free for smart phones and tablet devices. | | |
| **Specialist resource requirements** | Nil | | |
| **Content** | 1. Introducing neuroscience and neuropsychology; Christian worldview perspectives 2. Neuroscience research methods 3. The structure and function of the Central Nervous System (CNS) 4. The sensory and motor systems 5. Learning and memory 6. Emotion and language 7. Attachment and relationships 8. Consciousness, attention and executive function 9. Religion and spirituality 10. Neurodevelopmental disorders 11. Clinical neuropsychology 12. Neural plasticity 13. Applications of neuropsychology and implications for professional practice | | |
| **Learning outcomes** | On completion of this unit, students will have demonstrated that they have:   1. Understood major neurological systems and processes at both the cellular and structural level; 2. Explored the neurobiological bases of a range of human behaviours, functions and experiences; 3. Evaluated significant debates and controversies within the field of neuropsychology; 4. Applied the theories, principles, and research base of neuropsychology to their developing practice as applied social sciences practitioners; 5. Critically reflected on the findings and implications of neuropsychology in light of Christian worldview perspectives; and 6. Communicated at an appropriate tertiary standard with special attention to correct grammar, punctuation, spelling, vocabulary, usage, sentence structure, logical relations, style, referencing, and presentation. | | |
| **Assessment tasks** | **Task 1: Online Quizzes**  Students will complete four online multiple-choice quizzes pertaining to content covered in Weeks 1-3, 4-6, 7-9 and 10-12. | | |
| Word Length/Duration:  Weighting:  Learning Outcome:  Assessed: | N/A  30%  1-3, 6  Weeks 4,7,10, 13 | |
| **Task 2: Seminar and Handout**  Students will prepare a seminar presentation accompanied by a well-researched and appropriately referenced handout focussing on one of the topics in the unit. The presentation and handout must address current research findings, debates, implications for professional practice and a Christian worldview reflection. On campus students will deliver their presentations during weekly tutorials, while external students will submit their presentations as video recordings. | | |
| Word Length/Duration:  Weighting:  Learning Outcomes:  Assessed: | Seminar - 30 minutes; Handout - 1,000 words  30%  1-6  Weeks 5-12 | |
| **Task 3: Research Essay**  Students will prepare a thoroughly researched essay addressing a current significant and debated issue in neuropsychology from the list below. The essay is to include a sophisticated Christian worldview reflection and application of findings for professional practice.  1) Brain function and religious and quasi-religious experiences;  2) The relationship between brain, mind, and spirit;  3) The neurological basis of the therapeutic relationship and therapeutic change;  4) The possibilities and limits of neuroplasticity;  5) The neuropsychology of a specific neurodevelopmental or neuroclinical disorder; or  6) Other, as approved by the unit coordinator. | | |
| Word Length/Duration:  Weighting:  Learning Outcomes:  Assessed: | 2,000 words  40%  1-6  Week 13 | |
| **Unit summary** | This unit continues to build on the knowledge gained in previous units and provides students with an in-depth overview of neuroscience and its relationship to human behaviour. It furthers students’ knowledge in the field of cognitive and behavioural neuroscience, including research methods, major findings, current controversies, and Christian worldview implications. | | |