Sherbrooke Community School
VCE UNIT PLANNER, 2013

Teacher: Joel Cordwell Subject: Psychology units 1 – 4 Study Design: Units 3 & 4

<table>
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<tr>
<th>Term 1</th>
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<td>Today’s Date: Tuesday, February 12, 2013</td>
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This document is intended to assist students in their forward planning and their preparation for assessment tasks. The document also provides parents with a clear overview of the subject. It should be used as a guide only.

Core texts:
- Milesi (2010) PsychNotes Unit 3 (3rd Ed), A+ Publishing

UNIT No. 1 – 4

<table>
<thead>
<tr>
<th>Term 1 WEEK</th>
<th>DATES</th>
<th>TASK / CONTENT – Area of Study 1: Mind, Brain and Body</th>
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<tbody>
<tr>
<td>1</td>
<td>28/1 ~ 1/2</td>
<td>• 1. Consciousness as a psychological construct informed by the work of Rene’ Descartes and William James</td>
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<td></td>
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<td>• Learning Activities 2.2 &amp; 2.3</td>
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<td>• Cue cards: Key words and definitions</td>
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<tr>
<td>2</td>
<td>4/2 ~ 8/2</td>
<td>• 2. Concepts of normal waking consciousness and altered states of consciousness, including daydreaming, meditative and alcohol induced, in terms of levels of awareness, content limitations, controlled and automatic processes, perceptual and cognitive distortions, emotional awareness, self-control and time orientation.</td>
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<td></td>
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<td>• Learning activities: 2.11, 2.12, 2.14, 2.15</td>
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<td></td>
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<td>• Experiment: The Stroop effect – preparation for SAC 2, research methods</td>
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<td>• Experiment: meditation – time orientation.</td>
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<td>• 3. Sleep as an altered state of consciousness: purpose, characteristics and patterns of the stages of sleep including REM and NREM stages of sleep</td>
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<td>• Learning Activity: 3.1, 3.3, 3.5, 3.9 &amp; 3.10</td>
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<td></td>
<td>• The Doze family online activity. Astronaut online activity</td>
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<tr>
<td>Week</td>
<td>Days</td>
<td>Topics</td>
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| 3    | 11/2 - 15/2 | 4. Methods used to study the level of alertness in normal waking consciousness and the stages of sleep.  
- Measurement of physiological responses including EEG, EOG, heart rate, body temperature and galvanic skin response (GSR)  
- The use of sleep laboratories, video monitoring and self-report to study the effects of total and partial sleep deprivation  
- Loss of REM and NREM sleep  
- Sleep recovery patterns including amount of sleep required, REM rebound and micro-sleeps.  
- Sleep-wake cycle shifts during adolescence compared with child and adult sleep including delayed onset of sleep and need for sleep.  
- Learning Activity: 3.5, 3.9 & 3.10 - Astronaut online activity |
| 4    | 18/2 - 22/2 | 5. Research methods and ethical principles associated with the Stroop Effect experiment. Structure of an ERA (operationalized hypothesis etc.)  
- Learning Activity: Box 2.4  
- 6. The interaction between cognitive processes of the brain and its structure including:  
  - Roles of the central nervous system, peripheral nervous system (somatic and autonomic), and autonomic nervous system (sympathetic and parasympathetic)  
  - Experiment: Studying the spinal cord  
  - Learning activities 5.1, 5.3, 5.5, 5.6  
  - Sympathetic arousal handout |
| 25/2 - SAC 1 | 25/2 (Evaluation of research – The stroop effect experiment) Total 30 marks |
| 5    | 25/2 - 1/3 | Roles of the four lobes of the cerebral cortex in the control of motor, somatosensory, visual and auditory processing in humans; primary cortex and association areas.  
- Hemispheric specialization; the cognitive and behavioural functions of the right and left hemispheres of the cerebral cortex, non-verbal versus verbal and analytical functions  
- ERA: The phantom Hand  
- ERA: Sheep Brains dissection  
- Learning Activities: 4.9, 4.10 |
| 6    | 4/3 - 8/3 | The role of the reticular activating system in selective attention and wakefulness; role of the thalamus in directing attention and switching sensory input on and off  
- Learning Activities: 4.12 & 4.13  
- 7. Contribution of studies to the investigation of cognitive processes of the brain and implications for the understanding of consciousness including:  
  - Studies of the aphasia including Broca’s aphasia and Wernicke’s Aphasia  
  - Spatial neglect caused by stroke or brain injury  
  - Learning activities: 4.14, 4.15, 4.17 |
| 7    | 11/3 - 15/3 | Split-brain studies including the work of Roger Sperry and Michael Gazzaniga  
- Perceptual anomalies including motion after-effect, change blindness, synaesthesia  
- ERA – the eye as a sense organ pp 138 (experiment and activities)  
- Learning activities: 4.18, 4.19, 4.21  
- 8. The application and use of brain research methods in investigating the relationship between biological and cognitive factors of human beings including:  
  - Direct brain stimulation and transcranial magnetic stimulation (TMS)
### Brain recording and imaging techniques:
- Computed topography (CT)
- Positron emission tomography (PET)
- Single photon emission computed tomography (SPECT)
- Magnetic resonance imaging (MRI)
- Functional magnetic resonance imaging (fMRI)

### Learning Activities:
- 4.24, 4.26, 4.27, 4.30

### Handouts

### 26/3 - SAC 2 will be the start of the week of 26/3 (test) Total 20 Marks

### Area of Study 2: MEMORY

#### 9
- 25/3 – 28/3
- **1. Mechanism of memory formation**
  - Role of the neuron in memory formation informed by the work of E. Richard Kandel.
  - Roles of the hippocampus and temporal lobe
- **Learning Activities**: 6.26
- **Henry Molaison**

### END OF TERM 1

<table>
<thead>
<tr>
<th>Term 2 WEEK</th>
<th>DATES</th>
<th>TASK / CONTENT</th>
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<tbody>
<tr>
<td>1</td>
<td>15/4 – 19/4</td>
<td>- Consolidation theory</td>
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<td>- Memory decline over the lifespan</td>
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<td>- Amnesia resulting from brain trauma and neurodegenerative diseases including dementia and Alzheimer’s disease</td>
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<td>- <strong>Learning activities</strong> 6.29, 6.30, 6.31, 6.32</td>
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<tr>
<td>2</td>
<td>22/4 – 26/4</td>
<td>- 2. Comparison of models for explaining human memory:</td>
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<td>- Atkinson-Shiffrin's multi-store model of memory including maintenance and elaborative rehearsal, serial position effect and chunking</td>
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<td>- <strong>Learning activities</strong> 6.2, 6.3, 6.5, 6.6, 6.7, 6.11, 6.14</td>
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<td>- <strong>ERA</strong>: Chunking and short term memory &amp; Recall and serial position effect – PP 215 – 220</td>
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<td>3</td>
<td>29/4 – 3/5</td>
<td>- Levels of processing as informed by Fergus Craik and Robert Lockhart</td>
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<td>- Organization of long term-memory including declarative and episodic memory, and semantic network theory.</td>
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<td>- <strong>Handouts</strong></td>
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<td>- <strong>Learning Activities</strong> 6.16, 6.18, 6.21, 6.23</td>
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<td>- <strong>Chapter summaries</strong></td>
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### 29/4: SAC 3 will be near the end of the week of 30/4 (test) Total 25 marks.

### 4
- 6/5 – 10/5
- **3. Strengths and limitations of psychological theories of forgetting:**
  - Retrieval failure theory including tip of the tongue phenomenon
  - Interference theory
  - Motivated forgetting as informed by the work of Sigmund Freud including repression and suppression
  - Decay theory
- **Learning Activities** 7.3, 7.4, 7.8, 7.9, 7.10, 7.13
- **Chapter summaries**
- **Handouts**
4. Manipulation and improvement of memory.
   - Motivated forgetting as informed by the work of Hermann Ebbinghaus.
   - Measures of retention including relative sensitivity of recall, recognition and relearning.

5. Use of context dependent cues and state dependent cues
   - Mnemonic devices including acronyms, acrostics, peg-word method, narrative chaining and method of loci
   - Effect of misleading questions on eye-witness testimonies including the reconstructive nature of memory informed by the work of Elizabeth Loftus.
   - Learning activities 8.1, 8.3, 8.8
   - Chapter summaries
   - Multiple choice questions
   - ERA: Improving memory: Using the Method of Loci. pp 239

6. Research Methods and ethical principles associated with the study of memory, as outlined in the introduction to the unit
   - Revision

7. SAC 4 – will be near the end of the week of 3/6 (folio of practical activities). Total 25 marks
   - Unit 3 Practice examination.

UNIT 4 BEGINS – AREA OF STUDY 1: LEARNING

9. Behaviours not dependant on learning including reflex action, fixed action patterns and behaviours due to physical growth and development (maturation)
   - Chapter summary
   - Learning Activities 9.1, 9.2
   - Mechanism of learning:
     - Areas of the brain and neural pathways involved in learning, synapse formation, role of neurotransmitters.
   - Learning Activities 9.4
   - ERA: The process of learning; pp 175 (experiments and activities)

10. Developmental plasticity and adaptive plasticity of the brain: changes to the brain in response to learning and experience; timing of experiences
    - Use of imaging technologies in identification of localized changes in the brain due to learning specific tasks
    - Applications of, and comparisons of, learning theories:
      - Classical conditioning as informed by Ivan Pavlov: roles of neutral, unconditioned, conditioned stimuli; unconditioned and conditioned responses
    - Chapter summaries
    - Learning activities 9.7, 9.9,
    - Multiple choice questions.
    - ERA: Wizz fizz experiment

END OF TERM 2
Unit No. (continues)
### 1. Applications of classical conditioning:
- Graduated exposure, aversion therapy, flooding
- One-trial learning with reference to taste aversion as informed by John Garcia and Robert Koelling
- Trial and error learning as informed by Edward Lee Thorndike’s puzzle-box experiment.
- **Learning Activities:** 10.2 and 10.3
- **Chapter summaries**
- **Learning activities** 10.7, 10.8, 10.9
- **Handouts**

### 2. Three-phase operant conditioning as informed by BF Skinner:
- Positive and negative reinforcement, response cost, punishment and schedules of reinforcement
- Applications of operant conditioning: shaping, token economies
- Comparisons of classical and operant conditioning in terms of the processes of acquisition, extinction, stimulus generalization, stimulus discrimination, spontaneous recovery, role of learner, timing of stimulus and response, nature of the response (reflexive/voluntary)
- **Chapter summaries**
- **Learning activities** 10.11, 10.12, 10.13, 10.14, 10.17, 10.21, 10.22, 10.24, 10.25, 10.27
- **ERA:** Stimulus generalisation & Instrumental conditioning of verbal response pp 195

### 3. Observational learning (modeling) processes in terms of the role of attention, retention, reproduction, motivation, reinforcement as informed by Albert Bandura’s experiments with children
- **Learning activities** 10.30, 10.31, 10.34
- **Chapter summary**
- Insight learning as informed by Wolfgang Kohler
- Latent learning as informed by Edward Tolman
- **Learning activities** 10.38
- **Chapter summaries**
- **Chapter 10 mini test**

6/8/13 - SAC 1 to be completed in this week (test) Worth total of 20 marks

### 4. The extent to which ethical principles were applied to classic research investigations into learning including John Watson’s “little Albert” experiment
- Research methods and ethical principles associated with the study of learning, as outlined in the introduction to the unit.

13/8/13 – SAC 2 - Due at the beginning of the week (annotated folio) Total of 30 marks.

**AREA OF STUDY 2: MENTAL HEALTH**

### 5. Concepts of normality and differentiation of mental health from mental illness
- Systems of classification of mental conditions and disorders: underlying principles of classification; strengths and limitations of discrete categorical (DSM-IV and ICD-10) and dimensional (graded and transitional) approaches to classification of mental disorders
- **Learning activities** 11.2, 11.4, 11.6, 11.8
- **Learning activities** 11.8, 11.12, 11.14, 11.16, 11.17
- **Multiple choice questions**
- **Chapter summary**
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<th>Week</th>
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| 6    | 29/8 - 23/8 | - Use of biopsychosocial framework (the interaction and integration of biological, psychological and social factors) as an approach to considering physical and mental health.  
- Application of a biopsychosocial framework to understanding the relationship between stress and physical and mental wellbeing:  
  - Physiological and psychological characteristics of responses to stress including fight-flight response, eustress and distress, strengths and limitations of Selye’s General Adaptation Syndrome.  
  - Learning activities 12.1, 12.4  
  - Chapter summaries  
  - Balloon popping activity |
| 7    | 26/8 - 30/8 | - Psychological determinants of the stress response, strengths and limitations of Richard Lazarus and Susan Folkman’s Transactional Model of stress and coping  
- Social, cultural and environmental factors that exacerbate and alleviate the stress response.  
- Allostasis (stability through change brought about the brain’s regulation of the body’s response to stress) as a model that integrates biological psychological and social factors that explain an individual’s response to stress.  
- Strategies for coping with stress including biofeedback, meditation, physical exercise, social support  
  - Learning activities 12.8, 12.10, 12.11, 12.13, 12.14  
  - Chapter summaries  
  - Multiple choice questions |
| 8    | 2/9 - 6/9 | - Application of a biopsychosocial framework to understanding and managing simple phobia as an example of an anxiety disorder:  
  - Biological contributing factors: role of the stress response; role of the neurotransmitter GABA in the management of phobic activity.  
  - Psychological contributing factors: psychodynamic, behavioural and cognitive models; the use of psychotherapies in management including cognitive behaviour therapy, systematic desensitization and flooding.  
  - Socio-cultural contributing factors: specific environmental triggers such as being bitten by a dog; parental modeling and transmission of threat information  
  - The interaction between biological, psychological and socio-cultural factors which contribute to an understanding of the disorder and its management.  
  - Chapter summaries  
  - Multiple choice questions |
| 10/09/13 - SAC 3 | - Test on biopsychosocial framework (40 marks) |
| 9    | 9/9 - 13/9 | - Application of a biopsychosocial framework to understanding a mental disorder and its management: Mood disorder: major depression.  
  - Biological contributing factors: role of genes in contributing to the risk of developing major depression; role of the neurotransmitters serotonin and noradrenaline in major depression; the function of anti-depressant medication in management  
  - Learning activities 14.1, 14.2, 14.4, 14.6  
  - Chapter summaries |
### Psychological contributing factors; learned helplessness; stress; the use of psychotherapies in management including cognitive behaviour and therapy and psychodynamic psychotherapy.

### Socio-cultural contributing factors; abuse, poverty, social isolation and social stressors as risk factors; support factors including family and social networks and recovery groups

Interaction between biological, psychological and socio-cultural factors which contribute to an understanding of the disorder and its management:
- Learning activities 14.8, 14.9, 14.10, 14.12, 14.15
- Chapter summaries
- Multiple choice questions

#### END OF TERM 3

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<tr>
<td>1</td>
<td>7/10 ~ 11/10</td>
<td>Revision Programme</td>
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18/10/13 – SAC 4 – Evaluation of research Seligman (Total 25 marks)

| 2           | 14/10 ~ 18/10| Revision Programme                                   |

| 3           | 21/10 ~ 25/10| Revision Programme                                   |

UNIT 3 & 4 PSYCHOLOGY EXAMINATION- Date TBC

#### END OF YEAR