GPRC

DEPARTMENT OF ARTS AND EDUCATION

COURSE OUTLINE – FALL 2015
PY 1040 (A2) BASIC PSYCHOLOGICAL PROCESSES – 3 (3-0-0) 45 Hours

INSTRUCTOR:	Dr. Bruce Galenza	**PHONE:**	780-539-2994
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OFFICE HOURS: Mon 10:00 – 11:30/1:00 – 2:00, Tues/Thur 10:00 – 2:00, Wed 10:00 – 1:00, Fri 11:30 – 1:00, weekend mornings.

PREREQUISITE(S)/COREQUISITE: None

RECOMMENDED TEXT/RESOURCE MATERIALS:
Gerrig, R.J., Zimbardo, P.G., Desmarais, S., & Ivanco, T. (2013). <u>PY1040: Basic psychological processes: Custom Edition, G.P.R.C.</u> Pearson Education, Canada.

CALENDAR DESCRIPTION: This first introductory course in psychology gives students an understanding of themselves and other people through the study of basic concepts, principles, theories, and methods used in the scientific study of behaviour. The course covers research methods in psychology, the biological bases of behaviour, neurophysiology, sensation, perception, learning, states of consciousness, memory, and cognition.

CREDIT/CONTACT HOURS: 3 credits / 3 hours per week

DELIVERY MODE(S): Lecture/Discussion

OBJECTIVES: As a result of taking this course in Introductory Psychology, students will gain the abilities to define, explain, and give examples through paragraph-answer examinations the following basic concepts of psychology:

1. The Scientific Perspective (Ch1): formal thinking skills, determinism, mechanism/monism (Dates covered in lecture: Sep 2 – 9)

2. The genetic determinism of behaviour (Nature) (Ch 4): Wilson's Sociobiology, evolutionary psychology, genetic transference and variability, natural selection, evolution, reflexes, fixed action patterns, animal parallels (Sep 9-14).

3. The environmental determinism of behaviour through Behaviourism (Nurture) (Ch 8): learning, Pavlov's classical conditioning, conditioned and unconditioned stimuli and response, associations, acquisition, extinction, stimulus generalization, and discrimination (Sep 16).

4. Skinner's operant conditioning (Ch 8): The three term contingency, reinforcement and punishment, extinction, stimulus control, generalization and discrimination, positive and negative contingencies (Sep 21-23).

5. Nature with Nurture determinism (Ch 8): Evolutionary psychology, Epling & Pierce's Biobehaviourism, natural selection of learning potential, enabling and constraining influences of biology, species-specific learning differences (Sep 30).

6. Cognitive determinism (Ch 8): Bandura's social learning theory, latent learning, internal symbolic representation, Tolman's cognitive maps, observational learning (Oct 5).

7. Critical thinking and the scientific perspective (Ch 2 & 3) Theories versus opinions, evidence, evaluation of theories, operational definitions, measurement, description, correlation, controlled experimentation, quasi-experimental designs, statistics, hypothesis testing (Oct 7-19).

8. Neurophysiological determinism (Ch 5): The brain, the biological basis of behaviour, emotion, and cognition, structures and functions, lateralization and specialization, biological rhythms, dreams, and drugs (Oct 26-28)..

9. Sensation (Ch 6): Vision, audition, transduction, discrimination of quantity and quality of environmental energies, neural coding, psychophysics, feature detection (Nov 2-4).

10. Perception (Ch 6): Feature analysis, Gestalt, Constructivism, prototypes (Nov 9).

11. Atkinson and Shiffrin's information processing model (Ch 9 & 10): Cognitive determinism, intelligence, sensory, short, and long term storages, modelling structures and processes, metacognition (Nov 18-23).

12. Craik and Lockhart's Levels of Processing (Ch 9 & 10): Principles of semantic encoding (Nov 25).

13. Schema theory (Ch 9 & 10): Categories/prototypes, stereotypes, frames, story schemas, scripts, narratives, person schemas, self-schemas, formal and informal/irrational thought, intelligence (Nov 30-Dec 7).

*Please note that the above objectives are also the course schedule and its tentative timelines.

LEARNING OUTCOMES:

PART ONE:

1.1. Define and explain what psychological theories study and what questions they try to answer while doing so.

1.2. List and explain what the differences are between formal and informal thinking in deciding what is true, worthwhile, and good.

1.3. Define and explain the scientific perspectives of mechanism and monism as they are applied to human and animal behaviour.

1.4. Explain the mechanisms of genetic determinism; how do genes cause behaviour?

1.5. Explain why we have the genes we have; what is the process by which we acquire them?

1.6. From the perspective of evolutionary psychology, explain altruism and aggression in our species using the concept of tribalism.

1.7. Define Learning from the Behaviourist perspective and explain why it's defined that way.

1.8. Define, explain, and give examples of the Classical Conditioning processes of acquisition and extinction.

1.9. Define, explain, and give examples of the Classical Conditioning processes of generalization and discrimination.

1.10. Define, explain, and give examples of the Operant Conditioning processes of how the consequences of behaviour determine future behaviour.

1.11. Define, explain, and give examples of the Operant Conditioning process of stimulus control.

1.12. Define, explain, and give examples of the Operant Conditioning processes of positive and negative reinforcement and punishment.

1.13. Define and discuss how Operant Conditioning explains the concept of "free will."

1.14. Define and explain the four basic schedules of reinforcement.

1.15. Differentiate between and give examples of primary and secondary reinforcers.

PART TWO:
2.1. Explain how scientific theories are created according to Heider and Kuhn.

2.2. Explain the major empirical criticisms of Behaviourism from the Biobehavioural perspective.

2.3. Explain the contribution of "nature" from the "nurture WITH nature" perspective, as defined by Biobehaviourism.

2.4. Explain why dogs can easily learn to sit and beg for treats but cats can't.

2.5. Explain the concept of "internal symbolic representation" that is at the basis of Social Learning Theory.

2.6. Explain how Bandura uses principles of Operant and Classical Conditioning in his Social Learning Theory.

2.7. Explain the process of observational learning from Social Learning Theory.

2.8. Explain why science purposefully takes the perspective that "people are all the same" rather than "everyone's different."

2.9. Summarize, define, and explain the four basic types of research designs.

2.10. Explain what an operational definition is and what it means for an operational definition to be valid, reliable, and standardized.

2.11. Explain why testimonials and eye witness testimonies are not considered to be "evidence" by research psychologists.

2.12. Explain the process of random sampling; how it is done and why it is done.

2.13. Explain what a correlation is and what it shows.

2.14. Explain what it means to "isolate the independent variable" in controlled laboratory experimentation; what does this mean, how is it done, and why is it desirable to do so?

2.15. Explain the differences between true and quasi experimental designs.

PART THREE:

3.1. Define and explain what is meant by referring to the brain and nervous system as the neurological substrate of the human experience.

3.2. Draw and label the essential components of a nerve cell.

3.3. Explain the functions of any or all of the following: Brain stem, cerebellum, hypothalamus, pituitary gland, thalamus, amygdala, hippocampus, and basal ganglia.

3.4. Discuss the following issue: do different hemispheres do different things (localization of function) or do different hemispheres do things differently (hemispheric specialization)?

3.5. Explain the process of transduction and what it accomplishes.

3.6. Explain what is meant by the quality and quantity of light waves and how they are differentially encoded in the nervous system.

3.7. Define and explain the field of psychophysics and what it attempts to do.

3.8. Define and explain the two kinds of sensory thresholds and how they are measured.

3.9. Explain how the Helmholtz theory accounts for colour vision.

3.10. Explain how the Hubel and Wiesel Feature Detection theory accounts for shape vision.

3.11. Explain how the Selfridge and Biederman Feature Analysis theories account for object perception.

3.12. Explain the concept of a Hoffding step, that is, the idea of indirect perception.

3.13. Explain how we see depth.

3.14. Explain what prototypes are and what they have to do with perception.

3.15. Explain perception from the perspective of Constructivism.

PART FOUR:

4.1. Explain the uses of models and metaphors in Cognitive Psychology and why they are used.

4.2. Explain why computers are and are not intelligent, how they are similar to and different from Human Intelligence.   Include Information Processing's definition of intelligence.

4.3. Explain what Atkinson and Shiffrin mean by structures and processes of intelligence.

4.4. Explain why the Information Processing model postulates three stores in memory.

4.5. Define and explain metacognition and consciousness.

4.6. Explain in general terms what is meant by semantic encoding of verbal material.

4.7. Explain what is meant by "thesis" and "context" of academic knowledge.

4.8. Explain what is meant by elaborative rehearsal of verbal material.

4.9. Explain how Schema Theory defines and explains knowledge.

4.10.   Define, explain, and give examples of the three types of scripts.

4.11.   Define, explain, and give examples of types of narratives.

4.12.   Explain how Schema Theory explains recovered or reconstructed memory.

4.13.   Explain how Schema Theory is an example of a nurture with nature theory.

SUMMARY:

Present the thesis, perspectival context, and major principles of the following theories:

1. Sociobiology.
2. Classical Conditioning.
3. Operant Conditioning.
4. Biobehaviourism.
5. Social Learning Theory.
6. Constructivism.
7. Information Processing.
8. Schema Theory.

TRANSFERABILITY: AU, CUC, Concordia, MacEwan, King's, U of A, U of C, U of L.

** Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability

GRADING CRITERIA:

GRANDE PRAIRIE REGIONAL COLLEGE			
GRADING CONVERSION CHART			
Alpha Grade	**4-point Equivalent**	**Percentage Guidelines**	**Designation**
A⁺	4.0	90 – 100	**EXCELLENT**
A	4.0	85 – 89	
A⁻	3.7	80 – 84	**FIRST CLASS STANDING**
B⁺	3.3	77 – 79	
B	3.0	73 – 76	**GOOD**
B⁻	2.7	70 – 72	
C⁺	2.3	67 – 69	**SATISFACTORY**
C	2.0	63 – 66	
C⁻	1.7	60 – 62	
D⁺	1.3	55 – 59	**MINIMAL PASS**
D	1.0	50 – 54	
F	0.0	0 – 49	**FAIL**
WF	0.0	0	**FAIL, withdrawal after the deadline**

EVALUATIONS: Assessment will be based on four exams: the first weighted at 20%, the second and third weighted at 25%, and the final exam worth 30%. Below, you will see four sets of fifteen questions; each of the four exams will consist of a randomly chosen five questions from those lists. The final exam will also include two questions from the list of "Summary"

questions. Following the final grade assignments, students will be subjectively assessed for bonus points on the basis of their involvement in and contributions to the class, and attendance.

Exam dates: Sep 28th - 20%

Oct 21st – 25%

Nov 16th - 25%

TBA Exam week – 30%

STUDENT RESPONSIBILITIES: This is adult education. You will be treated as such and are expected to behave accordingly. It is expected that all students will display a professional attitude and behaviour in the classroom. This includes reliability, respect for and cooperation with your fellow students and the instructor, attention to fellow students' questions and instructors' responses, determination to achieve first-class work, effective time management, and constructive response to criticism.

STATEMENT ON PLAGIARISM AND CHEATING:
Refer to the Student Conduct section of the College Admission Guide at
http://www.gprc.ab.ca/programs/calendar/ or the College Policy on Student Misconduct:
Plagiarism and Cheating at
http://www.gprc.ab.ca/files/forms_documents/Student_Misconduct.pdf

If you cheat in any way, you will be given a zero for the exam, an "F" for the term, you are no longer welcome in my class, and I will write a letter to the administration recommending you be suspended from the college.

GENERAL COMMENTS:
We will not follow the text chapter by chapter nor follow the text's organization. Thirteen major theories and perspectives of human behaviour and cognitive processes will be introduced in the lectures moving from the simplest to the most complex. Students are expected to find and read the topics in the text using the Index as a guide. Extra readings will be recognized; going beyond lecture material will be rewarded.

There is so much more to learn than we can cover in our limited class time. Make the most of your college experience by reading the text and other sources beyond what is called for in the papers. It will also make your exam answers all the more insightful.

My preferred teaching style is interactive lecture, derived from the teaching philosophy that little is learned until responses are made (either verbally or written).

I am extremely available for student consultation, and I will be happy to proof students' rough drafts of exam answers and to further discuss course material.