DEPARTMENT OF ARTS AND EDUCATION: PSYCHOLOGY

COURSE OUTLINE – WINTER, 2014

PY2580 A3 / PSYC355 (AU) Cognitive Psychology – 3 (3-0-0) 45 Hours -

INSTRUCTOR: Dr. Bruce Galenza **PHONE:** 780-539-2994

OFFICE: C 403 **E-MAIL:** bgalenza@gprc.ab.ca

OFFICE HOURS: Tues, Thur, Sat, 8:00 – 11:30; Wed 10:00 – 1:00

PREREQUISITES: PY 1040 and PY 2110 or ST 1510. Suggested: PY 2810.

REQUIRED TEXT/RESOURCE MATERIALS: Solso, R.L., Maclin M.K., & Maclin, O.H. (2008). Cognitive psychology, (8th Ed), Allyn and Bacon. ISBN: 0-205-52108-8

CALENDAR DESCRIPTION: The general orientation of this course is the basic research perspective of the scientific definition, investigation, and modeling of the structures and processes of attention, perception, learning, memory, cognition, and consciousness. It is a course in the current established research traditions, theories, and paradigms of cognitive psychology.

CREDIT/CONTACT HOURS: 3 credit hours per week, classroom.

DELIVERY MODE(S): Lecture/Discussion

COURSE GOALS: As a result of participating in this course, students will be able to demonstrate the following learning outcomes through written and oral communication:

1. Knowledge structures: organized, related and interrelated information, the ability to identify, abstract out, and structure the essential elements of theories and perspectives. They will be able to define and explain the concepts, principles, and perspectives listed under "Behavioural Objectives" below in their own words. They will have developed structured, organized, related, interrelated, and applicable knowledge of these perspectives, not simply lists of details and definitions, as demonstrated by structured, organized and interrelated written work. (The what of cognitive psychology)

2. Procedural knowledge: research methods and procedures, the gathering of data in testing hypotheses to support or contradict theories and models, the general progression of science through theory and model building, and the communication of ideas. (The how of cognitive psychology)

3. Metacognitive judgment: independent, critical, and analytic thought concerning the proper use of scientific and research procedures. They will be able to evaluate the concepts and principles of these theories and models on the basis of how well they describe and explain human cognitive abilities by using logic, reason and data, rather than authority, tradition, personal feelings, or personal experiences. (The where and when of psychology of learning and memory.)

4. Attitudinal considerations; understanding the value of this work and its application, attending class and participating in discussion. (The why of cognitive psychology)

BEHAVIOURAL OBJECTIVES (Note: These are my planned topics; however, I reserve the right to change them as student interests and abilities dictate. Changes will be advertised. Also, I intend to let student interests and abilities guide the speed of the course; consequently, no dates are given for these papers.) As a result of taking this course, students will be able to answer the following questions in a 3+ page essay:

#1. What's a "mind" and does cognitive psychology study it? Is cognitive psychology a science or have we retreated back to an outmoded dualistic position? In other words, what does cognitive psychology study and how does it do it? (Answer this question by defining and explaining cognitive psychology's use of models in its research. Explain the cognitive paradigm's concept of models, their purpose, their use in understanding human structures and processes of intelligence and thought, and how they are understood (through what research methods).) (2 periods)

#2. There is an infinite amount of information in the environment and an infinite amount of information that can be known (that is, held in LTM). There is a "bottleneck" between the two; only a small amount of information can be dealt with at any given time. Also, attention appears to be shiftable, focusable, and have many other characteristics. How do the major structural models of attention (Broadbent, Triesman) deal with these phenomena? How do Kahneman's Limited Capacity and Keele's Activation models deal with them? What are the essential differences between procedural and structural models? (Define attention, explain what the two models are, what they do, how they do it, and how they are similar and different). (2 periods)

#3. Compare and contrast the Direct versus Indirect theories of perception, including differences and similarities between theories on the active/passive, top-down/bottom-up, and nature/nurture dimensions. Evaluate the theories as to which best accounts for the empirical data. Synthesize a compromise (3 periods).

#4. In 1972, Newell and Simon described humans and computers as two examples of the same thing, that is, as symbol manipulating, decision making, intelligent systems. In what ways are computers and people similar and different? In other words, explain Atkinson and Shiffrin's use of computers as a model for human information processing. What are the essential components of their model of human information processing and what does this model try to achieve; that is, what were A & S's goals in developing this model? (Again, do not list non-essential details of the model, just talk about structures and processes). Briefly, what evidence suggests a three storage (Sensory-STM-LTM) distinction? Why not four or five storages? (3 periods)

#5. Cognitive psychology went through a phase of rejecting structural models of information processing in favour of processing models. Explain this distinction and summarize the principles of processing that determine whether or not information is transferred to long term memory such that it can be retrieved. (In other words, define “depth” of processing in all of its aspects.)

#6. Define, explain, summarize, compare, and contrast the various basic concepts of hypothetical knowledge structures or schemas (categories/prototypes, stereotypes, frames, scripts, et al.). Give examples of each by using them to describe your cognitive understanding of the first five minutes of a college class lecture at the beginning of a term, also demonstrating their use in the processing that information.

#7. What are the contributions of nature (biological evolution) to the nurture (environmental learning) of cognitive structures and processes? What would a theory of “BioCognition” look like?

#8. Define, differentiate, compare, and contrast the various types and/or levels of thought. Define thinking, and differentiate lower and higher order thought. Do you see them as categorically/qualitatively different or as a continuum/quantitative difference? Demonstrate Perry's Fifth Stage of Relative Thinking by synthesizing the several definitions of thought (Perkins, Piaget, and Kahneman) into one workable and novel definition to which one shows a personal commitment.

#9. (Bonus) What is consciousness, what is its purpose, why did it evolve, what does it add to cognitive processes? Is it an active agent or epiphenomenal to these processes?

General Comments:

As each topic that we cover has endless lists of details, papers are limited to a maximum of eight pages of text (plus title page and references) in an effort to encourage students to be precise and concise in their writing.

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 make your papers all the more insightful.

Your text seems to sacrifice order for detail; it covers *everything* at the expense of organization. Lectures shall provide an organized overview; as such, we will not be covering the book chapter by chapter but topic by topic. Use your index to read the pertinent and relative information.

My preferred teaching style is interactive lecture, derived from the teaching philosophy that nothing is learned until responses are made, either verbally or written.

I am extremely available for student consultation and I will be more than happy to proof students' rough drafts and to further discuss course material.

Papers are due at the beginning of the class period on the specified dates. Late papers will be graded but penalized 2 points per class day. As adequate time is allotted between the end of the unit and the due date, no excuses other than medical, major emergencies, and single parenthood will be accepted. Ensure you have an adequate supply of ink cartridges and paper and back up all work on disk. E-mailing papers is acceptable. You may have three free papers where I will indicate spelling and grammatical errors but not penalize them. After that, papers not written to university standards will be rejected and returned ungraded. Rewrites are allowed.

ASSESSMENT:

"A grade is an inadequate report of an inaccurate judgement of a biased and variable judge of the extent to which a student has obtained an unidentified level of mastery of an unknown proportion of an indefinite amount of material."

-Paul Dressel, 1955.

Research psychology recognizes the authority of, and bases its judgements on, carefully collected data as opposed to opinion, tradition, authority, or feelings. In keeping with this philosophy, rather than me imposing my authority on you and telling you what you need to know and then arbitrarily assigning cut-off points according to the arbitrary judgements based upon non-standardized tests, you as a class will inform me of what you are capable of, through my measurement of your performance. Students will be assessed according to their relative position within the class. This will be explained fully in the first class period; handouts are available for those who wish to understand this more fully.

Assessment will be based on seven summary papers, each weighted at 10%, plus a 30% final exam that will be a summary paper, articulated as the eighth paper above. After the final grade assignment, students will be eligible for a subjective raising of their grade based upon their involvement in, and contribution to, the class; this may include attendance.

TRANSFERABILITY:

**** 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 of Class**	**Designation**
A^+	**4.0**	**2%**	**EXCELLENT**
A	**4.0**	**3%**	
A^-	**3.7**	**7%**	**FIRST CLASS STANDING**
B^+	**3.3**	**9%**	
B	**3.0**	**13%**	**GOOD**
B^-	**2.7**	**16%**	
C^+	**2.3**	**16%**	**SATISFACTORY**
C	**2.0**	**13%**	
C^-	**1.7**	**9%**	
D^+	**1.3**	**7%**	**MINIMAL PASS**
D	**1.0**	**3%**	
F	**0.0**	**2%**	**FAIL**
WF	**0.0**	**0**	**FAIL, withdrawal after the deadline**

The Percentage Guidelines listed above will obtain only if a perfectly normal distribution results. Deviations from the assumptions of normality will result in modified percentages. In short, this is NOT grading on the curve.

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 www.gprc.ab.ca/about/administration/policies/**

**Note: all Academic and Administrative policies are available on the same page.

A GENTLE WARNING: Some students try to copy work from textbooks or other published writing and claim it as their own. This form of cheating is called plagiarism or theft of intellectual property. This is easy for me to spot; the difference in writing style between undergraduates and professionals is immediately obvious.

Other students may try to buy papers from the Internet or to copy from other students. This is also easy for me to spot as a purchased paper is invariably different in scope from the highly specific requirements of this course. Further, it can be seen when a student shows no knowledge during class discussion of what was in the paper that he or she has just submitted.

A third way of cheating is to buy or borrow papers from students who took this course from me last year. Please be forewarned that I have changed the course content, student requirements, and textbook substantially from last year, so finding information in a paper from last term's course will be a dead give-away.

If you cheat, you will be removed from this class, given an "F" for the term, and I will write a letter to the administration recommending you be suspended from college.