A: Division: **INSTRUCTIONAL** Effective Date: **SEPTEMBER 2004**

B: Department / **PSYCHOLOGY** Revision **X** New Course
Program Area: **FACULTY OF HUMANITIES &**
SOCIAL SCIENCES

If Revision, Section(s) **C, H**
Revised:
Date of Previous Revision: **OCTOBER 2001**

Date of Current Revision: **APRIL 2004**

C: **PSYC 2360** **D**: **COGNITIVE PSYCHOLOGY** **E:** 3

Subject & Course No.	Descriptive Title	Semester Credits

F: Calendar Description: This course provides an introduction to the psychology of cognition and is concerned with the methods and theories relevant to thinking and related processes. Concept formation, problem solving, reasoning, decision making, and the relation of language to thought will be covered. The influence of individual differences, social factors, artificial intelligence, and biology will be included as well as the practical applications of research in cognition.

G: Allocation of Contact Hours to Type of Instruction / Learning Settings

Primary Methods of Instructional Delivery and/or Learning Settings:

Lecture

Number of Contact Hours: (per week /semester for each descriptor)

Lecture: **4 hrs. per week / semester**

Number of Weeks per Semester: **15**

H: Course Prerequisites:

PSYC 1200

I: Course Corequisites:

NONE

J: Course for which this Course is a Prerequisite

NONE

K: Maximum Class Size:

35

L: PLEASE INDICATE**:**

Non-Credit

College Credit Non-Transfer

X College Credit Transfer:

SEE BC TRANSFER GUIDE FOR TRANSFER DETAILS (www.bccat.bc.ca)

M: **Course Objectives / Learning Outcomes:**

At the conclusion of the course the successful student will be able to:

1. List the major historical figures in the history of cognitive psychology and describe their contribution.

2. Define cognition and describe the various types of cognition included in the definition.

3. Describe the major contemporary theoretical approaches in cognitive psychology.

4. Describe concept formation and attainment and the role of perceptual and memory processes.

5. Explain the similarities and differences between individual and group problem solving.

6. Describe the similarities and differences between human reasoning and artificial intelligence reasoning.

7. Describe the dynamics of decision making processes and boundaries of "rational decision making".

8. Describe the role of language and imagery in cognition.

9. Describe the role of individual differences in cognitive style and cognitive ability.

10. Run simple simulations of cognitive processes on a microcomputer using packaged software.

11. Locate and use internet resources in Cognitive Psychology.

N: **Course Content:**

1. Historical Context
   The rationalistic tradition
   Scientific decision making
   The behaviourist tradition
   The cognitive revolution

2. Biological Processes
   Neural networks
   Rhythms and cycles

3. Perceptual Processes
   Sensory memories
   Pattern recognition in humans and machines
   Attention

4. Memory Processes
   Models of memory
   Short term memory
   Arousal and memory
   Practical implications

5. Imagery
   Characteristics of images
   Imagery and memory
   Cognitive maps
   Graphical computer interfaces

Course Content Cont'd.

6.   Language
     Understanding language
     Computers and language representation
     Producing language
     Remembering language
     Reading
     Language translation

7.   Concepts and Categories
     Methods of researching
     Factors affecting concept formation
     Testing hypotheses
     Natural categories
     Statistical methods of categorization

8.   Problem Solving
     Problem representation
     Strategies and heuristic
     Ill-defined problems
     Creativity
     Computational explorations of creative processors

9.   Reasoning
     Linear series problems
     Propositional reasoning
     Syllogisms
     Analogies
     First order predicate logic

10. Decision Making
     Representativeness
     Availability
     Social judgement and bias
     Mathematical modeling judges policy

11. Individual Differences
     In memory processes
     In language usage
     In concept formation and problem solving
     In cognitive styles
     Thinking as measurable ability

12. Artificial Intelligence
     Expert systems
     Decision support systems

13. Social Cognition
     Group problem solving
     Consensual social reality
     Game playing and simulation

O: Methods of Instruction:

The course will employ a variety of instructional methods to accomplish its objectives, including some of the following:

- lectures
- audio-visual materials
- small group discussion
- research projects
- computer based cognitive simulation exercises
- mediated electronic forums/discussion groups
- internet-based individual and small group assignments

P: Textbooks and Materials to be Purchased by Students:

Texts will be updated periodically. Typical examples are:

One or more of:

Anderson, John, R., (2000) <u>Cognitive Psychology and its Implications</u> (5th ed.). Salt Lake City, Utah: Worth Publishers

Solso, Robert, L. (2001) <u>Cognitive Psychology</u> (6th ed.). New York: Allyn & Bacon Publishers

Q: Means of Assessment:

Evaluation will be carried out in accordance with the Douglas College policy. Evaluation will be based on some of the following: quizzes, multiple choice type exams, essay type exams, term paper or research project, computer based assignments, internet based assignments, quality of participation in class discussions. An example of one evaluation scheme is as follows:

10 quizzes	25%
5 homework assignments	10%
Small group assignments	10%
Class discussion quality	10%
Term project paper	20%
Midterm exam	10%
Final exam	15%
	100%

R: Prior Learning Assessment and Recognition: specify whether course is open for PLAR

No. Given that this course involves theoretical and empirical analyses of cognitive psychology, it is unlikely to be open for PLAR except as a credit transfer from another institution.

Course Designer(s):   Education Council / Curriculum Committee Representative

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Dean / Director   Registrar