**Sacramento City College**

**Cognitive Psychology**

PSY 316 Section: 12345

*Fall-Winter-Spring-Summer*

Lecture: RSH 271 Time: T-Th 9:00-10:20

**Instructor: Chris T. Tromborg, Ph.D.**

Davis Academic Center Office & Hours: DAC 128: Time: M-W: 9:30-10:30

Main Campus Office & Hours : RHS 286 Time: T-Th: 4:00-5:30

Friday: (Davis Academic Center ) Office: DAC 128 Time: 9:00-11:00 by appointment

Phone: SAC 1-916-558-2514 DAC 1-916-558-2514

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**Course Assistant: Rosemary Babcock**

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Textbook: Cognition (4-5th ed.) by Mark. H. Ashcraft and Gabriel A. Radvansky

(Prentice-Hall Inc: 2009) (ISBN-13:9780136050469)

**Course Description**

Cognitive Psychology is a course designed for psychology majors and others interested in developing a better understanding of cognitive science through a broad review of general principles in the field. Topics addressed in this course include: A brief discussion of the philosophy of science and mind--and of debates about the structure of mind; a brief history of the study of learning, conditioning, associationism, behaviorism, and other theories of learning; introductory neuroanatomy and neurophysiology; introductory information processing theory; perceptual processes, including recognition and attention; memory, including sensory memory, working memory, and long term memory; language--including comprehension and discourse; thinking--including problem solving, reasoning, and decision making; cognitive and language development; cognition and problem solving in nonhumans; and the evolution of metacognition.

This course is designed to foster a better appreciation for cognition in humans (and even a few other species) by emphasizing a comparative approach to the study of learning, memory, and problem solving. Information generated through research employing different theoretical perspectives will be presented in class for discussion, a process in which students are encouraged to participate.

*Upon completion of this course students should be able to:*

>Articulate how the scientific method is used to investigate the relationships between the nervous system and cognition.

>Differentiate between the various techniques and approaches employed by scientists in various areas of cognitive science.

>Employ critical thinking skills to assess the merits of claims made by proponents and opponents of cognitive psychology research presented in the popular press.

>Explain individual variation in patterns of perception.

>Demonstrate an understanding of the concepts of learning, memory, thinking, and language.

>Analyze and describe some of the current theories used to describe the complexity of human thought processes.

>Compare human cognition with implied cognition in non-human species and describe the methods used to demonstrate species similarities and differences.

>Recognize some of the shortcomings of traditional methods of memorization and differentiate between and describe alternate, more effective strategies for improving learning and memory.

>Demonstrate an understanding of language development and its influence on the structure of thought, including the role of bilingualism in effective education.

>Connect the role of neurological structures and psychological disorders to related cognitive processes.

>Develop strategies for using your knowledge of cognition to improve the effectiveness of education outside of the classroom.

**Evaluation Procedures**

Students are evaluated on the basis of their performance on exams, participation in class discussion, and attendance. Students may earn up to a maximum of 200 points in this course. Grading is strictly proportional: Grades are never curved.

There will be five equally weighted 50 point exams. Exams consist exclusively of objective test items (multiple choice: Scantron #882-E).

The student's lowest exam score from the second, third, or fourth exam will be disregarded when the final grades are calculated.

Students are allowed up to 60 minutes to complete each exam.

Exams absolutely **must** be taken when scheduled and can only be rescheduled for compelling reasons authorized by your instructor. Additionally, there might be up to five 10 point quizzes administered, typically with no prior notification.

**Remember:** Students are evaluated on the basis of their performance on exams, extra credit, participation in class discussion, and attendance.

***Attendance is important***: Those regularly absent will see this reflected in their grades.

**Responsibilities and Suggestions for** Success

General Principles of Psychology (PSY 300) is a prerequisite for this course.

Biological Psychology (PSY 310) would provide students with an extremely useful background for cognition. Please activate your S.C.C. G-mail account as soon as possible so that we can communicate with you on a regular basis.

***Attendance is important***. You are encouraged to attend class: Students who do not attend lecture during the first two weeks will be dropped from the course. Thereafter, students missing more than nine hours of lecture may be dropped from the class. It is your responsibility to officially obtain a withdrawal from this course. Failure to do so may result an **F grade**.

Please attempt to arrive to class on time and plan to remain for the duration of the lecture to minimize disrupting others. Students should not engage in conversations unrelated to course materials during lectures.

Students are encouraged to remain current in the readings in order to facilitate discussion in class. Prepared students are able to offer informed questions that can clarify points of confusion for themselves and frequently for their classmates.

You are expected to bring course related materials to class and to participate in class discussion. Failure to participate will be reflected in your performance on exams and in your final grade.

Outside of class, students should attempt to work together on course materials.

Students must take exams when they are scheduled. A student missing an exam will receive zero points and this score will be treated as their low midterm score, which is not entered into the calculation of the final grades.

Students missing two or more exams will automatically be dropped from the class.

Students must arrive within fifteen minutes of the beginning of the exam, after which the exam is closed: You have up to 60 minutes to complete exams.

Cheating on exams will be rewarded with a grade of **F** and subsequent disciplinary actions.

Students with learning or other disabilities should speak to the instructor, who will place them in contact with the Disability Resource Center or the Learning Resource Center.

**Please deactivate all cell phones within the classroom.**

**Grading Scale**

200‑180=A   
179‑160=B   
159-140=C   
139-120=D   
119 and below=F

**Tentative Course Schedule**

The term begins at the beginning of the semester and concludes at the end of the semester. The last day of instruction precedes the final examination period. The final exam period encompasses the final week of the semester. The last day to drop with a refund occurs during the second week; the last day to drop without notation occurs during the third week; the last day to petition for “pass/no-pass” grading occurs during the fourth week; and the last day to drop with a "W" notation on your record occurs during the eleventh week.

***The following are holidays:*** Labor Day, Veteran's Day, Thanksgiving Recess, Martin Luther King's Birthday, Washington's Birthday, Lincoln's Birthday, Spring Recess, Memorial Day, and Independence Day.

**Week One:** Introduction to the course and your textbook

Cognitive Psychology: An Introduction

Chapter One

History and Systems

**Week Two:** Biology and Behavior

Basic Neuroscience

Neurons and Neural Impulses

Neural Networks

**Week Three:** Nature Versus Nurture

A History of Learning

Learning's Theorists and Theories

Learning and Intelligence in Non-human Animals

**Week Four:** The Cognitive Science Approach

Chapter Two

**Exam One**

**Week Five:** Sensation, Perception, and Pattern Recognition

Chapter Three

The Anatomy and Physiology of Vision and Audition

**Week Six:** Attention

Chapter Four

**Week Seven:** Higher-order Perceptual Processing: Attention

**Exam Two**

**Week Eight:** Short‑Term Working Memory

Chapter Five

The Hippocampus and the DLPFC

**Week Nine:** Learning and Remembering

Chapter Six

Neural Networks and Connectionism

**Week Ten:** Knowing

Chapter Seven

**Exam Three**

**Week Eleven:** Using Knowledge in the Real World

Chapter Eight

Interactions in Long-Term Memory

**Week Twelve:** Language

Chapter Nine

Language Research in Nonhuman Animals

**Week Thirteen:** Comprehension: Written and Spoken Language:

Getting Started

Chapter Ten

**Week Fourteen:** Brain Power**!**

**Take-Home Exam Four**

**Week Fifteen:** Cognitive and Language Development

**Week Sixteen:** Decisions, Judgments, and Reasoning

Chapter Eleven**Week Seventeen:** Decisions, Judgments, and Reasoning

**Week Seventeen:** Problem Solving

Chapter Twelve

Comparative Cognition: Problem Solving in Nonhuman Animals

Trends in Contemporary Cognitive Neuroscience

Course retrospective and Review

**Week Eighteen: Final Exam Period**

**Week Eighteen: Exam Five**

**-We reserve the right to alter schedules as the course proceeds-**

www.losrios.edu

www.christromborg.com

*Learning Resource Center Support:*

http://pilot.scc.losrios.edu/PILOT

http://www.scc.losrios.edu/~library/online-workshops

http://www.scc.losrios.edu/~library/web-research-tutorial

***Belief in myths allows the comfort of opinion without the discomfort of thought***

*Additional Notes:*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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