

**San José State University
Department of Psychology
Psychology 135, Cognition, Section 3, Fall 2013**

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| Instructor: | Mark Van Selst |
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| Office Hours: | Mon & Wed.: 10:30 – 11:45 (I also advise Tue 10-12 & 2-4) |
| Class Days/Time: | Mon & Wed.: 9:00 – 10:15 (Aug. 21 – Dec. 9) |
| Classroom: | DMH 359 |
| Prerequisites: | PSYC 1 (General Psychology) |
| Class ID Number: | 42693 |

Faculty Web Page and MYSJSU Messaging

Copies of the course materials such as the syllabus, major assignment handouts, etc. may be found on my faculty web page at <http://www.sjsu.edu/people/mark.vanselst> (you can find this through the Quick Links>Faculty Web Page links on the SJSU home page or the Faculty and Staff page from the psychology department home page). You are responsible for regularly checking with the messaging system through MySJSU and whichever email address you have set up within your MySJSU preferences for email communication. I use this feature of MySJSU extensively.

Course Description

The activity of knowing: acquisition, organization and use of knowledge. Processes involved in that activity, including perception, memory, thinking, and language.

Required Textbook

Kellogg, R.T. (2012). *Fundamentals of Cognitive Psychology (2nd Edition)*. Sage. ISBN 978-1-4129-7785-2.

Library Liaison

The library liaison for Psychology is Bernd Becker. He can be reached at (408) 808-2348 or Bernd.becker@sjsu.edu (e-mail preferred).

Classroom Protocol

All students are expected to display professionalism and respect for others. This explicitly includes arriving on time, participating in class, engaging in civil dialog, and paying attention to classroom activities. Please turn off your cell phones and refrain from activities that disrupt the class. If you have to arrive late, seat yourself quietly and near the door. If you have to leave early, be sure to let me know in advance and sit by the door. Common courtesy and professional behavior dictates that you notify someone when you are recording him/her. You must obtain the instructor's permission to make audio or video recordings in this class. Any such permission will allow the recordings to be used for your private, study purposes only. The recordings remain the intellectual property of the instructor; you have not been given any rights to reproduce or distribute the material. Course material developed by the instructor remains the intellectual property of the instructor and cannot be shared publicly without his/her approval. You may not publicly share or upload instructor-generated material for this course such as exam questions, lecture notes, or homework solutions without instructor consent.

Course Overview

This course is an introduction to the scientific analysis of how people think. The course will touch upon the history and current understanding of human cognition. The basic requirement is for students to develop a firm grasp on some of the basic research findings and the theories that have been proposed to account for these findings. As benefits the level of this course, the lectures will cover a broad range of topics, some of which will expand into areas outside of the core content covered in the textbook. The course is primarily lecture-based, as facilitated by class discussion and your independent work on the assignments.

The best way to learn the material will vary across different people. Nevertheless, as we will discover, active information processing leads to better memory (Kellogg, p.133), as does tying the material to real-world examples (Kellogg, p.191). In addition, distributed learning is more effective than “*cramming*” (the technical term is ‘*massed practice*’). I suggest that you supplement your class notes and the on-line notes by building your own study guide (I am partial to index cards) as you read through the chapters. It should go without saying that you should read the relevant chapters both before and after they are covered in lecture (interestingly, non-ESL students will benefit more from pre-reading chapters; ESL students benefit more from reading chapters after the fact than pre-reading the chapters). You are strongly encouraged to start on the various assignments (and seek out assistance as appropriate) well before their due date. This is particularly true of assignments that require you to locate and summarize appropriate peer-reviewed empirical journal articles using the PsycInfo database (if you are a new or ‘open university’ student please check with the library reference desk to ensure that you have appropriate access to the electronic database resources required for this course).

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of forty-five hours over the length of the course (normally 3 hours per unit per week with 1 of the hours used for lecture) for instruction or preparation/studying or course related activities including but not limited to internships, labs, and clinical practica. Other course structures will have equivalent workload expectations as described in the syllabus.

Course Goals and Learning Objectives

Goal 1. Knowledge Base of Psychology: Students will demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in cognitive psychology.

- **Students completing this course will be able to describe the major concepts and theories of cognitive psychology (**

Goal 2. Research Methods in Psychology: Students will understand basic methodological approaches used in cognitive psychology, including research design, analysis, and interpretation.

- Students completing this course will be able to describe different research methods used in cognitive psychology research.
- Students completing this course will be able to draw appropriate conclusions from psychological research.
- Students completing this course will be able to synthesize and communicate research findings appropriately.

Goal 3. Critical Thinking Skills in Psychology: Students will understand and be able to use critical and creative thinking, skeptical inquiry, and a scientific approach to address issues related to behavior and mental processes.

- Students completing this course will be able to develop arguments for and against positions pertaining to specific debates within cognitive psychology.
- Students completing this course will be able to evaluate and defend positions and criticize arguments pertaining to specific issues in psychology.

Goal 4. Application of Psychology: Students will understand and be able to apply psychological principles to individual, interpersonal, group, and societal issues.

- Students completing this course will be able to apply concepts from cognitive psychology (both theories and research findings) to everyday life.

Goal 5. Values in Psychology: Students will value empirical evidence, tolerate ambiguity, act ethically, and recognize their role and responsibility as a member of society.

- Students completing this course will recognize the necessity for ethical behavior in all aspects of the science and practice of psychology.
- Students completing this course will recognize and respect the role of human diversity as it impacts research into, and application of, cognitive psychology.
- Students completing this course will value intellectual curiosity and skepticism.
- Students completing this course will recognize how their knowledge of psychology can inform their roles and responsibilities as members of society.

Relationship to University Learning Outcomes (ULOs)

Goals 1-5 pertain to the University Learning Outcome (ULO 1) of *Specialized Knowledge* – to master the depth of knowledge required for a degree, as identified by its program learning outcomes). University Learning Outcomes 2 (Broad Integrative Knowledge 1 of 2) has students producing, independently or collaboratively, an investigative, creative, or practical work that draws on theories, tools, technology, or methods from at least two academic disciplines; This course provides some context and content for achieving ULO 2. This course requires competency in advanced level analysis within Science/Social Science and thus pertains to ULO 3 (Broad integrative knowledge 2 of 2). ULO 4 (Intellectual Skills) has students obtaining skills and abilities necessary for life-long learning: critical and creative thinking, effective communication, literacy in information gathering and processing, mastery of quantitative methodologies, and the ability to engage effectively in collaborative activities; this course develops progress towards achieving ULO 4. This course starts the development of ULO 5 (applied Learning) which is to develop the ability to integrate theory, practice, and problem-solving to address real world issues or contexts. This course does not really focus on ULO 6 (Social and Global Responsibilities) – that is, developing the ability to act intentionally to address a global or local problem in an informed and ethical manner with a historical perspective and a clear understanding of societal and civic responsibilities

Assignments and Grading Policy

Grading will be based on written assignments and by formal in-class testing. The assignments will ensure that everyone keeps up with the reading, and should help you to assess whether you have mastered the basic concepts under study. The exams are (mostly) non-cumulative but, to some extent, the course material builds naturally upon itself. I am generally available to meet with you in order to elaborate on the requirements of the assignments or to answer specific questions that you have.

Exams will not be rescheduled except in the case of a documented medical or family emergency. Any exam that is rescheduled may be given as an oral exam or in essay format.

Late assignments will be penalized at least one point. Papers and assignments are due at the beginning (within five minutes of the registrar's scheduled start time) of the relevant class meeting. One point will be deducted from the research article assignments if the cover page from the article is not attached. It is in your best interests to do all of the assignments and to complete them in a timely fashion. If you are running behind, keep up with the current assignments.

Access to a computer word processor is required for the assignments. I will only accept typed assignments (handwritten work is not permissible – if your printer dies, go to the library or other commercial printing facility). It is assumed that you have sufficient skill and familiarity with your word processor to allow revisions to be made to assignments. For assignments that require you to find published journal articles, you must include a printout or photocopy of the first page of the article (not just the abstract). If you are unfamiliar with the use of the Psycinfo database, make an appointment with me as soon as possible. Open University students should approach library support services as soon as possible. Newspaper and magazine articles nor “information sites” (Wikipedia, etc)

from the web are not journal articles. It is your responsibility to have easy access to a back-up copy of any work that you hand in (keep multiple back-ups of any computer media).

Evaluation

11 assignments (see schedule) 3-5% each [49]

4 mostly non-cumulative midterm exams

- (10% for Mid1; 10% M2; 6% M3; 20% M4[final]) [51]

The course will be graded out of 100:

<60 is a fail;
60-62.5 D-; <67.5 D; <70.0 D+;
70-72.5 C-; <77.5 C; <80 C+;
80-82.5 B-; <87.5 B; <90 B+;
90-92.5 A-; <95 A; >95 A+

Course Completion

(i.e., receiving a grade other than F) requires three exams and at least six of the eleven assignments. I will generally not assign an incomplete unless there is a strong plan in place to cover the minority of material missing at the end of the regular course offering. Any such incompletes may need to be completed within a month. An “incomplete” in the course is reserved for those situations where there vast majority of the coursework is complete and there is a specific plan already in place (by mutual agreement) to complete the remaining work. Note that after-the-fact changes to grades will not positively impact probationary or disqualification status..

University Policies

Academic integrity

Your commitment as a student to learning is evidenced by your enrollment at San Jose State University. The [University's Academic Integrity policy](http://www.sjsu.edu/senate/S07-2.htm), located at <http://www.sjsu.edu/senate/S07-2.htm>, requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The [Student Conduct and Ethical Development website](http://www.sjsu.edu/studentconduct/) is available at <http://www.sjsu.edu/studentconduct/>.

It is your responsibility to be familiar with the scope, definitions, and recommended sanctions of the university's Academic Integrity policy (S07-2 at <http://www.sjsu.edu/senate/S07-2.htm>). Academic integrity is essential to the mission of San José State University. Violations to the Academic Integrity Policy undermine fair grading as well as the educational process itself. As such, it will not be tolerated. Violations also demonstrate a lack of respect for oneself, one's fellow students and the course instructor. Such violations can devalue the university's reputation and the value of the degrees it offers. We all share the obligation to maintain an environment that

practices academic integrity. Violators will be subject to failing this course and will be reported to the Office of Judicial Affairs for disciplinary action. Such action could result in suspension or expulsion from San José State University. You have rights governing appealing the application of this process and you should use them.

Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person's ideas without giving proper credit) will result in a failing grade and sanctions by the University up to and including expulsion. For this class, all assignments are to be completed by the individual student unless otherwise specified. If you would like to include your assignment or any material you have submitted, or plan to submit for another class, please note that SJSU's Academic Policy S07-2 requires approval of instructors.

All work that you turn in must be your own.

Campus Policy in Compliance with the American Disabilities Act

SJSU complies with the Americans with Disabilities Act. If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible (or visit during office hours). Presidential Directive 97-03 requires that students with disabilities requesting accommodations must register with the Accessible Education Center (AEC) at <http://www.drc.sjsu.edu/> to establish a record of their disability.

Add / Drop / Repeats

Students are responsible for understanding and being aware of the dates, policies and procedures that govern adds/drops, academic renewal, fee payment, withdrawal from the class and so forth. The current semester's [Catalog Policies](http://info.sjsu.edu/static/catalog/policies.html) are available at <http://info.sjsu.edu/static/catalog/policies.html>. Add/drop deadlines can be found on the [current academic calendar](http://www.sjsu.edu/academic_programs/calendars/academic_calendar/) web page located at http://www.sjsu.edu/academic_programs/calendars/academic_calendar/. The [Late Drop Policy](http://www.sjsu.edu/aars/policies/latedrops/policy/) is available at <http://www.sjsu.edu/aars/policies/latedrops/policy/>. Students should be aware of the current deadlines and penalties associated with dropping classes.

If you have taken this class before, the old grade will remain visible on your transcript but will no longer be included in the computation of your SJSU or overall gpa if the old grade is a C- or worse and you have grade forgiveness units left. If you wish to have your grades "averaged" (and thus saving grade forgiveness for another course) you will need to submit a form to prevent this.

If you are attempting to qualify for eligibility to be admitted to SJSU you will eventually need to formally (re)apply to the university (via CSUmentor) for the term you wish to return for (e.g., Historically before the end of November for admission to the following Fall semester). Psychology is an impacted major (see the official university information and the [Advising Hub](http://www.sjsu.edu/advising/) at <http://www.sjsu.edu/advising/>). The requirements to declare a psychology major can be found on the psychology page under faculty/policies: http://www.sjsu.edu/psych/Forms-Docs/Policies/Declaring_a_Major_Under_Impaction-Revised-2011.pdf

Additional Resources

Specific assistance with the format, style, and other aspects of your own writing can be sought from the SJSU writing center (<http://www.sjsu.edu/writingcenter/>). Both [Peer Connections](#) and the ACCESS center provide more general resource that are available if you know you that you have difficulty with your writing or other academic skills (e.g., effective studying and/or time management).

SJSU Peer Connections

Peer Connections is a campus-wide resource for mentoring and tutoring. The goal is to inspire students to develop their potential as independent learners while they learn to successfully navigate through their university experience. Students are encouraged to take advantage of services which include course-content based tutoring, enhanced study and time management skills, more effective critical thinking strategies, decision making and problem-solving abilities, and campus resource referrals.

In addition to offering small group, individual, and drop-in tutoring for a number of undergraduate courses, consultation with mentors is available on a drop-in or appointment basis. Workshops are offered on a wide variety of topics including preparing for the Writing Skills Test (WST), improving your learning and memory, alleviating procrastination, surviving your first semester at SJSU, and other related topics. A computer lab and study space is also available for student use (Room 600 of Student Services Center (SSC)).

Peer Connections has three locations: SSC, Room 600 (10th Street Garage on the corner of 10th and San Fernando Street), at the 1st floor entrance of Clark Hall, and in the Living Learning Center (LLC) in Campus Village Housing Building B. Visit [Peer Connections website](#) at <http://peerconnections.sjsu.edu> for more information.

SJSU Writing Center

The SJSU Writing Center is located in Room 126 in Clark Hall. It is staffed by professional instructors and upper-division or graduate-level writing specialists who have met a rigorous GPA requirement, and have been trained to assist students of any discipline to become better writers. The [Writing Center website](#) is located at <http://www.sjsu.edu/writingcenter>.

Application for University Graduation

If you have more than 90 units of credit towards graduation, you should meet with your major advisor concerning completing an application for graduation (ideally at least a year in advance).

Fall 2012 Schedule: Psychology 135 Cognition

This schedule and point break down is subject to change with fair notice. Updates will be posted to the class website and emailed to the class distribution list.

Table 1 Course Schedule

| Date | Due Today | % | Chapter | Description of Content |
|--------------------------|-----------------------------|-----------|---------------------------|---|
| Wednesday, Aug. 21, 2012 | | | Chapter 1 | Introduction – History and Methods, Cog. Neuroscience, and other key themes |
| Mon., Aug 26 | | | Chapter 1 | Introduction – History and Methods, Cog. Neuroscience, and other key themes |
| Wed., Aug 28 | GUEST LECTURE | | (C1) GUEST LECTURE | (Mark on Travel) Research Methods (Cog) |
| Mon., Sept 2 | LABOR DAY | | | |
| Wed., Sept 4 | Asst 1 due (Concepts) | 3 | Chapter 1 | Introduction – History and Methods, Cog. Neuroscience, and other key themes |
| Mon., Sept 9 | | | Chapter 2 | Perception |
| Wed, Sept 11 | Asst 2 due (Neuroscience) | 5 | Chapter 2 | Perception |
| Mon, Sept 16 | | | Chapter 2 | Perception Review |
| Wed., Sept 18 | | 10 | GUEST PROCTOR | Midterm 1 (chapters 1-2) (Mark at ASCSU) |
| Mon., Sept 23 | | | Chapter 3 | Attention & Consciousness Post-test review |
| Wed. Sept 25 | Asst 3 (Binding) | 5 | Chapter 3 | Attention & Consciousness |
| Mon., Sept 30 | | | Chapter 4 | Memory Systems |
| Wed., Oct. 2 | Asst 4 due (Memory Systems) | 5 | Chapter 4 | Memory Systems |
| Mon., Oct 7 | | | Chapter 4 Chapter 5 | Memory Systems; Remembering Events (encoding, storage, and retrieval) |
| Wed., Oct 9 | | | Chapter 5 | Remembering Events (encoding, storage, and retrieval) |
| Mon., Oct 14 | Asst 5 due (Mnemonics) | 3 | Chapter 5 | Remembering Events (encoding, storage, and retrieval) |
| Wed., Oct 16 | | | Chapter 5 | Remembering Events (encoding, storage, and retrieval) |

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|----------------------------------|---|-----------|--------------------------------------|---|
| Mon., Oct 21 | | 15 | GUEST PROCTOR | Midterm 2 (Ch. 3,4,5) (Mark on Travel) |
| Wed., Oct 23 | | | Chapter 6 | Memory Distortions |
| Mon., Oct 28 | Asst 6 due (False Mem.) | 5 | Chapter 6 | Memory Distortions |
| Wed., Oct 30 | NO CLASS | | NO CLASS | (Mark on Travel) |
| Mon., Nov 4 | | | Chapter 6 | Memory Distortions |
| Wed., Nov 6 | | 6 | | Midterm 3(chapters 6) (Mark at ASCSU) |
| Mon., Nov. 11 | VETERANS DAY | | | CAMPUS CLOSED |
| Wed., Nov 13 | | | Chapter 7 | Knowledge Representation |
| Mon., Nov 18 | Asst 7 due (Functional Equivalency) | 5 | Chapter 7 | Knowledge Representation |
| Wed., Nov 20 | | | Chapter 8 | Language |
| Mon., Nov 25 | Asst 8 due (Metacognition) | 5 | Chapter 9 | Problem Solving |
| Wed., Nov 27 | Asst 9 due (Language) | 5 | Chapter 9 | Problem Solving |
| Mon., Dec 2 | | | Chapter 10 | Reasoning and Decision Making |
| Wed., Dec 4 | Asst 10 due (Biases) | 3 | [additional] | Creativity and Intelligence |
| Mon., Dec 9 | Asst 11 due (Values and Application) | 5 | | review |
| Wednesday DECEMBER 11 | 07:15-19:30 | 20 | EARLY IN THE MORNING! | FINAL EXAM (Midterm 4) Chapters 7,8,9,10 |

Assignments (3-5% each)

Assignment #1 (CONCEPTS): 3% of your final grade

GOAL: To have you demonstrate your grasp of one or more of the concepts that covered under the broad umbrella of cognitive psychology (please ask clarifying questions). This assignment is deliberately “exploratory,” I expect you to think about what information or insights cognitive psychology might provide rather than necessarily having you do the research to reveal the current status of our full understanding of various phenomena in the literature. I expect you to have verified that your choice is a concept that is appropriate treatment from a cognitive psychology perspective. Other than perceptual and procedural errors, issues related to memory, language, or processes of object recognition are all

central to cognitive psychology and would be fruitful for you to consider prior to our in depth treatment of the underlying scientific knowledge.

REQUIREMENT: After reviewing the chapter previews presented in the front matter and the summary overview on pages 29 and 30 of your text, come up with a “real world” situation that *you have personally encountered* that relates to Cognitive Psychology. One option would be to write a report¹ about some personal experience (e.g., with a bank machine, a BART ticket dispenser, a cell phone, a fuel pump, a poorly organized textbook) showing how a design flaw in some device is related to a perceptual or cognitive limitation on human information processing (perception or attention). Be sure to write about something that you have personally encountered.

A simple example of a cognitive "design-facilitated error" is pulling on a door equipped with a pull-handle that you are supposed to push – the user of the device is cued by the shape of the handle [the affordance] to “push” rather than “pull” based upon prior learning. Discussing perceptually-based failures is also acceptable (e.g., dark adaptation, perceptual acuity, or problems with color coding used by color blind individuals or with non-meaningful color rankings [e.g., US terrorist threat assessment status]; lack of tactile feel on keyboard; inaudible cueing; etc.). Other failures, based on learning, such as finding that you “cannot get there from here” despite following an ostensibly correct course of action are also acceptable (e.g., it is exceedingly frustrating to me to not be able to directly respond to a missed call on my smart phone via a text message without going back to the “contacts” page). Alternatively (check with me first), you could write a report describing an encounter with a particularly effective system (e.g., the ease of setting up and using an iPod “out of the box” without guidance).

To help you think about the problem, you may want to think about what would be required to fix the problem. Be sure to use appropriate technical terms (with definitions) and cite your sources if used. It is often useful to check text definitions (even if from later in the text) to ensure that you are using technical terms correctly. Since so many of the examples use automatic versus controlled processes as a starting point, I will mention that differences between automatic and controlled processes are discussed on Page 77 of the text.

Due Date: start of class, Wed., Sept. 4.

Assignment #2 (NEUROSCIENCE): 5% of your final grade

GOAL : To further illustrate the connection between neurological function and human behavior.

REQUIREMENT: Based on RESEARCH FINDINGS as reported in peer-reviewed PSYCHOLOGY journal articles, you are to include a summary of the findings from the

¹ Two pages, double-spaced, 12-14 point typeface for each of the assignments. I will not grade beyond the first two pages. The basic requirement is for you to: (1) describe the problem,(2) define the relevant cognitive process or phenomena, and (3) clearly tie the two together. It is always a good idea to include the definitions (and page numbers) from the textbook.

article. Your report will be on some aspect of neurological foundations of some aspect of human cognition. For this, and other assignments requiring journal articles, you **MUST** use the SJSU electronic database “psycinfo” to aid your search and you **MUST** include one or more complete (preferably APA-style) citations to content-appropriate academic journal articles from peer-reviewed journals. It is ok to check your potential articles with me in the days before the assignment is due. So long as you capture the gist or central thesis of the article, I will not hold you responsible for a fully nuanced understanding of the methodological or interpretive subtleties.

Due Date: start of class, Wed, September 11th

- Be sure to include *BOTH* a photocopy or printout of the title page of the journal article (not the PsycInfo abstract) *AND* a printout of the “psychinfo search page” that led to the article with your assignment.
- Include the APA-style reference to the original work
- It is highly suggested that you start work on this assignment well before it is due.

Assignment #3 (BINDING): 5% of your final grade

Define the “binding problem”, as it is described in the text. Your assignment is to discuss the role of the “binding problem” as it relates to “inattentive blindness” leading to the “attentional blink” as well as the larger problem of producing coherent phenomenological percepts despite stimulus characteristics being represented in widely disparate parts of the brain (readings on consciousness and in particular the work of Baars may be pursued by the advanced student). You must include at least one definition of what the “binding problem” is, at least one definition of the “attentional blink”, at least one definition of “inattentive blindness” and, based on the technical readings, provide some insight into how cognitive psychologists have endeavored to understand the binding problem. Note that I anticipate and understand that there will be parts of the additional readings (those beyond the textbook that you will encounter in your research to best answer this question) that you will not fully understand. Obviously, I expect that you will check with a number of secondary sources (including the textbook) to help clarify the concepts underlying the binding problem. You should cite these sources (preferably in APA style) where appropriate.

Due Date: start of class, Wednesday, September, 25th.

- Be sure to include a photocopy or printout of the title page of the journal article (not the PsycInfo abstract) with your assignment.
- Include the APA-style reference to the original work
- It is highly suggested that you start work on this assignment well before it is due.

Assignment #4 (Memory Systems): 5% of your final grade

GOAL: To have you demonstrate scientific research and theories of memory

REQUIREMENT: This assignment has two parts. First, go through Chapter 4 and provide a glossary of each of the boldface terms from the text (this will require 1-2

pages). The second part of the assignment (an additional two pages) is to expand upon the textbook discussion of the support for particular theoretical models of memory (e.g., the various different elements of Baddeley's model of working memory). For this later section, you may use resources outside of the text to help you further understand the link between the scientific evidence and the theoretical interpretation of that evidence. Consider, for instance, the neuroimaging work that illustrates different areas of the brain "lighting up" when performing a task that is predominantly dependent on verbal processing versus one that is predominantly dependent on spatial processing. As a second possibility, consider what evidence exists to support the notion of a "central executive" in Baddeley's model of working memory.

Due Date: start of class, Wednesday, October 2nd.

- Be sure to include a photocopy or printout of the title page of the journal article (not the PsycInfo abstract) with your assignment.
- Include the APA-style reference to the original work
- It is highly suggested that you start work on this assignment well before it is due.

Assignment #5 (MNEMONICS): 3% of final grade

GOAL: To have you demonstrate your grasp of mnemonics

REQUIREMENT: Develop four separate mnemonics devices to help you remember the material in Chapters 4 and 5 (two to-be-remembered items per chapter; a different type of mnemonic for each item). The only type of mnemonic described in the text is the Method of Loci (see page 133). Others include Rhyming, Peg-Word, and Key-Word. Most mnemonics depend on visual imagery but pure "visual imagery" could be another type of mnemonic device as well. There are a variety of web-sites (including this course web-site) as well as a variety of other sources that further expand upon different types of mnemonic devices. In all cases, the specific devices that you develop for each of the to-be-remembered items should be your own. Each mnemonic device write-up should have three components: 1) the label for the type of mnemonic (e.g., visual imagery), 2) a definition of that type of mnemonic (including citation, even if the definition is drawn from the text), and 3) a description of the specific instantiation of the mnemonic device that you invented (e.g., Ebbinghaus = ebbing-house; visual image of a house on a pier, as water ebbs, the piers decay. Ebbinghaus studied memory decay). Separate each example. Use a different type of mnemonic for each of the four exemplars. You may be able to do the entire assignment in 2/3 of a page... or you might include drawings if appropriate. You can safely ignore the suggested two page limit if your mnemonics require it.

Due Date: start of class, Monday, October 14th.

Assignment #6 (FALSE MEMORIES): 5% of your final grade

GOAL: To have you demonstrate your grasp of problems of recovered memories or false memories.

REQUIREMENT: Based on COGNITIVE PRINCIPLES (include the definitions) and RESEARCH FINDINGS (write a summary of the findings from the article), write a two page report on some aspect of recovered memories and/or false memories. It will be up to you to narrow the topic. This assignment is not an appropriate forum for discussion of personally experienced sexual trauma. Advanced students may consider discussing conscious experience paired with issues such as memory strength and bias in reporting (i.e., signal detection theory). You **MUST** use the SJSU electronic database (e.g., psycinfo) to aid your search and you must include one or more APA-style citations [e.g., the format that is used for the reference section of the Ashcraft text] to content-appropriate academic journal articles from peer-reviewed journals. It is ok to check your potential articles with me in the days before the assignment is due.

Due Date: start of class, Monday, October 28th.

- Be sure to include a photocopy or printout of the title page of the journal article (not the PsycInfo abstract) with your assignment.
- It is highly suggested that you start work on this assignment well before it is due.

Assignment #7 (Functional Equivalency): 5% of your final grade

Goal: draw connections between scientific research and empirical evidence

Requirement: Define the term '*functional equivalency*' (in vision) and then describe at least one piece of evidence suggesting the functional equivalency of imaginal and perceptual processing. The report should be two pages long and should include at least one quote (e.g., a definition or clarification of a concept) from an original source article (e.g., work by such luminaries as Shepard, Kosslyn, or Georgopolis). This paper may be challenging. I am particularly interested in your demonstrating insight into the connection between data and theory and some of the thinking behind theoretical proposals that describe human information processing. I do anticipate that there will be parts of the original source articles that you will not fully understand. Further, I expect that you will check with a number of secondary sources (including the textbook) to help clarify the concepts for yourself. I am more interested in your level of understanding than the use of technical jargon.

Due Date: start of class, Monday, November 18th.

- Be sure to include a photocopy or printout of the title page of the journal article (not the PsycInfo abstract) with your assignment.

Assignment #8 (Metacognition): 3% of your final grade

GOAL: To have you demonstrate your grasp of metacognition.

REQUIREMENT: find (and cite) any three definitions of metacognition as used in the domain of psychological research (versus the Tony Robins late night commercial). Find, and summarize, at least one EMPIRICAL journal article investigating metacognition.

Due Date: start of class, Monday, November 25th.

- Be sure to include a photocopy or printout of the title page of the journal article (not the PsycInfo abstract) with your assignment.
- It is highly suggested that you start work on this assignment well before it is due.

Assignment #9 (LANGUAGE): 5% of your final grade

GOAL: To have you demonstrate your grasp of the importance of cognitive psychology in the study of language (e.g., as touched on in the discussion on page 369).

REQUIREMENT: Discuss how language can affect learning. The discussion should focus on the habitual patterns induced by the language of the person and how those thoughts might change as the learners' vocabulary expands (e.g., "learns the jargon of the discipline"). An extreme version of what I am hoping you will write would be a student submission on "how the Sapir-Whorf hypothesis applies to new concept learning." Essentially what I want you to write on is how new language acquisition impacts the learning of new "skills" such as mathematics or research methods. This essay will NOT be based on your opinions. It is to be based solely on RESEARCH FINDINGS as reported in peer-reviewed PSYCHOLOGY journal articles. As such, be sure to include a summary of what one or more articles suggests regarding this issue. You MUST use the SJSU electronic database "psycinfo" or "psycARTICLES" to aid your search and you must include one or more complete (preferably APA-style) citations to content-appropriate academic journal articles from peer-reviewed journals. It is ok to check your potential articles with me in the days before the assignment is due for either clarification about meaning or to ensure that they are sufficiently scientifically rigorous.

Due Date: start of class, Wednesday, November 27th.

- Be sure to include a photocopy or printout of the title page of the journal article (not the PsycInfo abstract) with your assignment.
- It is highly suggested that you start work on this assignment well before it is due.

Assignment #10 (Biases in Reasoning and Decision Making): 3% of your final grade

GOAL: To have you demonstrate your grasp three different cognitive biases in decision-making. One of these must be the "*Anchoring and Adjustment*" heuristic; another must relate to the work of Kahneman. The remaining one is any cognitive biases in decision-making not already included in your write-up that was discussed in class or which is mentioned in the text (group think, framing, etc.).

REQUIREMENT: Write a report discussing the heuristics that have influenced three separate decisions that you have personally made. Provide a brief description of each of three scenarios in which you had to make a decision (or were involved in the decision making) and the cognitive biases that may have been involved (possibly in retrospect). Each of the three sections of this assignment will include a clear definition of the heuristic(s), the description of the situation, and statements that indicate why each heuristic applies to the situation as you have described it. It is possible (but not required) that multiple heuristics may have influenced each decision; you may note this, but you must describe three separate decision-making episodes. One of the episodes must use the "anchoring and adjustment" heuristic, another as discussed by Kahneman. The other heuristic is up to you.

Due Date: start of class, Wednesday, Dec 4st.

Assignment #11 (Values and Application of Cognitive Psychology): 5% of your final grade

GOAL: To have you demonstrate your grasp of the scope and relevance of cognitive psychology. Goal #5 (see syllabus page 3) of the psychology degree objectives focus on the role of the individual within society.

REQUIREMENT: Your task is to elucidate (discuss) how the content covered in this course is relevant to GOAL #5 (syllabus page 3). You **MUST** use different examples and specific discussion questions than addressed in previous written assignments. I expect two to three pages, not more, not less. I do not want you to throw in technical terms where they are not appropriate; I do want you to describe how an increased knowledge of cognitive psychology content impacts your ethics, appreciation for diversity, and development of skepticism.

Due Date: start of class, Monday, December 9th.

To be included in the computation of your final course grade, any "late" assignments must be received by noon on December 13th. The fax number is 408 924 5605 c/o Van Selst. You can try email (mark.vanselst@sjsu.edu), but unless you get confirmation of receipt, it is not a 100% reliable mechanism of submission. Any text should be attached as a .pdf and/or .doc(x) file AND repeated as generic text in the body of the email (and thus if there is a virus, etc. I will still be able to read the content even though the format may not be ideal).