# Cedar Crest College <br> Psychology 336: Cognitive Processes 4 Credits <br> Spring, 2010 <br> Tuesdays, 6:00-9:30, HBB 11 <br> Dr. James Scepansky 

| Office: | 118 Curtis Hall |
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| Phone: $^{\text {(610) } 606-4666, \text { Ext. } 3424}$ |  |
| E $_{\text {mail: }}$ | jascepan@cedarcest.edu |
| Office Hours: | Tuesdays, $4: 30-6: 00$ pm, Or By Appointment |

## Required Texts and Material:

- Matlin, M. (2009). Cognition (7th Ed.) Harcourt Brace, Orlando.
- This text is supported by a companion web-site: http://bcs.wiley.com/hebcs/Books?action=index\&itemId=0470087641\&bcsId=4502. Look for the picture of the cover of your text; if you bookmark the page, you will only need to do this once! Be sure to check out the website as it contains a collection of tools, organized by chapter, to help you think about Cognitive Psychology, including Self-Tests. This will serve as an excellent means of assessing your understanding of text material in preparation for exams, as well as broadening your understanding of Cognitive Psychology as a diverse, integrated and applied discipline. Assignments may be made from the website from time to time, particularly ones involving reading brief articles posted under Web Activities and answering the questions that are presented.
- CogLab Online Version 2.0 (4 ${ }^{\text {th }}$ Ed.). Wadsworth Publishing. Access code and student manual for online laboratory experiments. MUST BE NEW COPY (PASSWORD IN USED COPIES WILL NOT WORK).
- Regular Access to eCollege. You should automatically be enrolled in eCollege if you are on the roster for this class at the beginning of the semester (if you register late, you need to contact the Registrar immediately). eCollege will enable me to send/receive emails to/from everyone in the class who has an email account, and I can also post handouts or assignments to the course space which you can then print. You will be able to track your scores on assignments across the semester, so that you should always have a sense of your current grade. College policy now mandates that your "cedarcrest.edu" (the default for eCollege) must be used (NOT hotmail, yahoo, etc.). It is your responsibility to regularly check your email (At least a couple times per day) from your own computer, a library computer, or from any computer that has email access--I WILL NOT ACCEPT "I DIDN'T GET IT" as an excuse for missing class, missing a deadline or submitting incomplete work. Points will be deducted under each of these circumstances.
- Use of Turning Point Clicker. This class will utilize the Turning Point Clicker system. Each student must purchase a clicker at the bookstore and bring it to class each day. The clicker will be used to track attendance and assess student comprehension throughout the semester. Once a student purchases a clicker, it should work for all current and future classes utilizing the Turning Point Clicker system (i.e., you only need buy one clicker). Once you purchase your clicker, you will need to electronically register it for use in this class, as well as any other classes which use the Turning Point Clicker system (directions will be provided).
- All students should purchase, or at least have access to, the Publication Manual of the American Psychological Association (6th Ed.) ${ }^{* * * * N E W ~ E d i t i o n * * * * . ~ A l l ~ w r i t t e n ~ w o r k ~ w i l l ~ f o l l o w ~ s t r i c t ~ A P A ~}$ style guidelines in terms of citation style and reference format. This book will also be required in PSY 365/366 (Senior Research), and is valuable for those contemplating graduate school.

Course Description: To provide an overview of the scientific field of cognitive psychology. You will become familiar with the different areas studied in the field, including attention, perception, memory, decision-making, and problem solving, and critically read key research articles at the core of the field. On-line laboratory experiments will provide an opportunity to experience the application of various principles and concepts discussed in class.

Course Objectives: The purpose of this course is to introduce you to many of the core topics studied by cognitive psychologists, as well as scientists in other related areas. The main focus of the course will be on the attributes that allow humans to exist in a very complex world. How do we learn new information and develop new skills? How do we retain what we have learned? Do these abilities change as a function of age? These are just some of the issues that will be addressed. Upon successful completion of this course you will have:

- an understanding of cognitive psychology terminology and the scientific methods cognitive psychologists use to conduct research.
- enhanced ability to conduct cognitive psychology research as a function of participation in on-line lab exercises and class experiments.
- enhanced APA format writing ability as a function of completing research reports based on in-class experiments and primary source readings.

Teaching Format: The course will consist of lecture, discussion, in-class activities, and on-line experiments. You should read the assigned material before coming to class, so that you can be an active participant.

Statement on Disability Accommodations: Students with documented disabilities who may need academic accommodations should discuss these needs with me during the first two weeks of class. Students with disabilities who wish to request accommodations should contact the Academic Services Center. According to college policy, documentation must be provided to me before accommodations will be made.

Psychology Department Attendance Policy: The Psychology Department is committed to the principle that regular and punctual class attendance is essential to the students' optimum learning and successful academic achievement. Regular class attendance is a student obligation, and students are responsible for all work, tests and written assignments. Therefore, students are expected to be present for all class sessions. The Psychology Department's attendance policy recognizes that there will be times when attendance at class is not possible. You may think of the policy as being similar to the type used in the corporate world where each employee is given a certain number of "personal/sick days." Based on the number of regularly scheduled class meetings, you will be allowed a certain number of absences (see below) with no consequences, no questions asked. In other words, there is no distinction between excused and unexcused absences. You are of course responsible for anything covered during those missed classes, and for submitting assignments on time, regardless of whether or not you attend. Beyond the allowable number of absences, there are consequences that will adversely impact your grade, much as missing too many days of work can adversely impact your employment status. Above all else, you should carefully consider each decision to not attend class, as once your allotted absences have been used, they are gone. It is important that students arrive for class on time. Late arrivals are very distracting, not only to the instructor, but also to fellow students. Repeated late arrivals are not acceptable and will be addressed on an individual basis. It is each student's responsibility to understand this policy and to keep track of absences throughout the semester.

Application to this Class: Formal attendance will be taken during all class sessions. This class meets once per week ( 14 class meetings). As such, you may miss $\underline{2}$ classes without penalty. If you miss $\underline{\mathbf{3}}$
classes, your final grade (cumulative percentage of points) will be lowered by $5 \%$. That means that if you have earned $84 \%$ of the available points in the class, which is a B grade, you would be lowered to $79 \%$, which is a C+. Likewise, if you have earned $77 \%$ of the points available, the penalty would take you down to $72 \%$, which is a C-. As a reminder, a C grade ( $73 \%$ ) is required in all Psychology courses. If you miss 4 classes, you will receive a failing grade for the course. If you miss four classes, you have missed approximately $25 \%$ of the class meetings.

Furthermore, you alone are responsible for all reading assignments and material covered in class, including activities, videos, handouts and announcements, regardless of whether or not you attend. We will cover a great deal of information over the course of the semester, and lectures will not always directly coincide with textbook materials. The majority of class time will be spent covering some of the more important concepts from the text, but often using different research or real life examples that will supplement the major issues discussed in the book. I have created PowerPoint handouts that serve as an outline for what I will cover in class on a chapter-by-chapter basis. I will provide these outlines, in advance, so you may have an overview of what we will cover. The outlines will provide definitions and many details of research studies we discuss so that I do not have to spend the majority of class time repeating definitions-you will have them in the handout, leaving more time to listen, process, and elaborate. As a word of caution, the PowerPoints are incomplete in that they DO NOT contain everything; I want to see if you can anticipate research findings and contemplate answers to questions during class. This would be impossible if I provided the findings in advance. In other words, the PowerPoints should be treated as a starting point, NOT as "all you need to know." You should take notes during class time to add to what is contained in the PowerPoints, paying particular attention to examples used to illustrate the concepts that are covered. Based on my experience, students who simply rely on the PowerPoints will NOT do well in this class. From my experience, given the hands-on nature of research methodology and statistics, failure to attend even a single class can strongly hinder performance. It is up to you to obtain handouts, notes, or any materials that you have missed.

Academic Honesty and Classroom Protocol: All Cedar Crest College students are expected to be familiar with and fully supportive of the college's policy regarding the Honor Code and academic integrity. For any instances of dishonesty (e.g., cheating on tests, copying other students' work, plagiarism, etc.), appropriate penalties will be applied. See the Student Guide for more information regarding the enforcement of these policies.

- Plagiarism: Plagiarism is the act of presenting the ideas, words or other intellectual property of another as one's own. The use of other people's work must be properly acknowledged and referenced in all written material. The use of material without acknowledgement is an offense.
- Cheating: Bear in mind that allowing another to copy one's work is an academic offense just as is copying from someone. Furthermore, submitting the same paper for two courses without arrangement is also an academic offense.
- Important: It is each student's responsibility to not only abide by, but also uphold the Honor Code. As such, any instances of dishonesty should be brought to my attention immediately.

In addition, appropriate classroom behavior is defined and guided by complete protection for the rights of all students and faculty to a courteous, respectful classroom environment. That environment is free from distractions such as late arrivals, early departures, inappropriate conversations, cell phone use and any other behaviors that might disrupt instruction and/or compromise other students' access to their Cedar Crest College education. Behavior that is deemed disruptive or disrespectful will result in penalties at the discretion of the instructor. To that end, here are a couple of things to keep in mind:

- You may eat in class, so long as you do so with courtesy to the class in terms of manners and noise level.
- Turn your cell phones to VIBRATE/SILENT immediately upon entering the classroom. If you are expecting an URGENT call, notify me ahead of time, situate yourself near the exit, and quietly exit the room before answering.
- Try to get a good night sleep before coming to class. Falling asleep in class is very distracting and disrespectful; if you are asleep, technically, you are absent and will be treated as such (See Attendance Policy).
- Entering and exiting the classroom during lecture/discussion is very distracting to both me and your classmates. To that end, please arrive on time. I usually take attendance during the first five minutes of class. While I understand that a student may be late to class for reasons beyond their control, this should not be a recurrent problem. Multiple times being late to class may be treated as absences or result in points being deducted from a student's class participation grade.

Assessments: Altogether, there will be three (3) exams (See course schedule below). Each exam will cover materials from the text and lecture notes, as well as any handouts that you receive, and any videos viewed. Exams will consist largely of multiple-choice questions, but will also have short essays; each exam will be worth 100 points. The third exam will be given during Final Exam Week according to the College schedule (published at a later date), but it is NOT comprehensive (it will only cover material from the last section of the course). Because exams will be scored immediately, exams must be taken during the scheduled time period. Further, exams MAY NOT take up the entire class session, and in those cases, we will begin the next section after the exam. You will be given adequate time to complete the exam, and you will know how much time you will be given at the beginning of the exam. For this reason it is essential that you are on time; if you are late on exam day, you will NOT be given extra time. Make-up exams will NOT be given without written documentation from the Dean of Student's Office of an excused absence according to college policy (i.e., serious illness that results in hospitalization or physician-mandated bed-rest, college-sponsored event, death of immediate family member)-NO EXCEPTIONS. Advanced notice MUST be given whenever feasible. Documentation must be presented and the make-up exam scheduled as soon as possible. Missed exams will result in a " 0 ."

Lab: Because this is an evening class, "lab" is integrated into our class time so that we do not need to have a separate meeting time. This also affords greater flexibility in introducing lab activities at the most appropriate time during our class session. To aid in your understanding of major cognitive concepts and phenomena, you will complete a series of CogLab experiments on the internet; these experiments will always be discussed in class. We will also do additional in-class demonstrations, but they will typically count towards "class participation" (see below). Your "Lab" grade will be exclusively tied to your experience with CogLab. There are numerous CogLab experiments listed on the website; however, you will not complete all of them. I have selected 18 of the experiments that supplement or compliment what will be covered in class or what is in the text. You must complete 16 of the lab experiments (permissible to skip two). However, there are deadlines for when experiments must be completed (See Schedule Below-Note that Labs must be completed no later than 12:00 noon on due dates). Most experiments take $15-30$ minutes to complete (some slightly longer), and the CogLab website automatically keeps track of which experiments you have completed, as well as individual and class aggregate results-I have access to this information. You will receive 5 points for each experiment that you complete by the appropriate time on the listed due dates (Schedule Below). You will not receive any credit ( 0 points) for experiments completed late (the first two that are missed will not hurt your grade; thereafter anything late or not completed will earn no credit). In addition, at the end of the semester, you will be required to evaluate the series of lab experiments by writing a brief reaction paper in which you will answer several specific questions (See Handout; e.g., "Which experiments were most difficult for you to complete? Why?," "Which experiments were most interesting? Why?"). You will keep a journal, to be submitted accompanying your reaction paper, in which you jot down your experiences with each lab experiment-it will be easier to answer the reflective questions at the end of the semester if you have a record to refer back to. The lab journal entries should have the name of the experiment, the date and time completed, a summary of your personal results, what you learned in completing the lab, and any difficulties you had in completing the lab; you may also elect to include answers to questions from the student manual. The reaction paper must be typed, and will be
graded based on clarity (quality and thoroughness of answer) as well as grammar and completeness of lab journal. The maximum score for the reaction paper will be 20 Points, and it is due on Friday, May $7^{\text {th }}$, no later than 4:00 p.m.. The lab portion of your grade will therefore total 100 Points (The value of an exam). NOTE: ALL assigned CogLab experiments will be fair game for exam items.

Homework and Class Participation: Homework and class participation will be factored into your grade in this class. Specifically, there will be several activities that we do in class and in lab (demonstrations, review questions utilizing Clickers, etc.), and if you are present when they are completed, you will earn credit; if you are absent, you forfeit those points. If you have written documentation of an excused absence (same criteria as above) you may be given an alternative assignment to complete to make-up for the experience you missed in class. Some activities involve group work; these assignments, because of their interactive nature, may not be made up. In addition, periodically, you will be asked to complete take-home assignments (i.e., homework). These assignments may be self-assessments, brief reflective essays, or Internet research activities (look something up, find a webpage, etc.). As with in-class assignments, you alone are responsible for finding out what assignments if any were missed when class is missed, and you are responsible for submitting assignments on time; only students with documented excused absences will be permitted to submit late work. The majority of points available for this category come from day to day participation. Specifically, each class session in which clicker questions are asked (pretty much every day) will be worth 5 points (regardless of the number of clicker questions asked); all in-class and take-home assignments will also be worth 5 points each; if you are in class and are properly using your clicker to answer the questions, you will get all 5 of that day's points (If you do not register your clicker correctly, or if you forget your clicker, you will not receive the points for that day's class, and those points MAY NOT BE MADE UP). Altogether, your Homework and Class Participation will be worth up to a maximum of 50 points, and your HW/CP GRADE will be based on the percentage of points you earn out of all the points available. For instance, if there are 12 class days in which clicker questions are asked ( 60 points total), and there are 7 in-class assignments/demonstrations ( 35 points total), and there are 5 homework assignments ( 25 points total), that means there are 120 possible homework and class participation points. Your HW/CP GRADE will be the percentage of points you earn out of $120(120 / 120=100 \%=50$ HW/CP points, $110 / 120=92 \%=46$ HW/CP Points, etc.). NOTE: It is absolutely important that you register your clicker and bring it to each and every class session.

Extra Credit: You may volunteer to serve as a research participant on campus at any time during the semester and earn extra credit, provided you submit proper documentation of your participation. A Research Subject Pool Bulletin Board is located in the basement of Curtis Hall, adjacent to the Psychology Department main office. Check this board periodically for research participation opportunities. You will be given one point for each study you complete, and you may participate in up to 5 studies for credit. This participation is a valuable service to the department and to our discipline. First, it benefits you in that you see first-hand how psychological research is done. Second, it allows our upper-class students and faculty a means of studying topics of interest and may ultimately lead to publications and conference presentations, the very way the scientific discipline of psychology advances. The number of opportunities for research participation varies from semester to semester, and my advice is to take advantage of opportunities as they arise. Students who are unable to participate in experiments, or who would prefer alternative opportunities, should speak with me and I will make alternate arrangements. In all, you are permitted to earn up to 5 points that will be applied to your total points at the end of the semester (these are not percentage points).

Grading: Your final grade will be assigned on the basis of the percentage of points you earn out of a maximum possible 550 points: Exams (Four, each worth 100 points), On-line Labs (80 Points maximum), CogLab Paper (20 Points maximum), plus extra credit points. The letter grades are based on the following scale:

| A | $\mathbf{9 3 . 0 - 1 0 0 \%}$ | C | $\mathbf{7 3 . 0 - 7 6 . 9 \%}$ |
| :--- | :--- | :--- | :--- |
| A- | $\mathbf{9 0 . 0 - 9 2 . 9 \%}$ | C- | $\mathbf{7 0 . 0 - 7 2 . 9 \%}$ |
| B+ | $\mathbf{8 7 . 0 - 8 9 . 9 \%}$ | D+ | $\mathbf{6 7 . 0 - 6 9 . 9 \%}$ |
| B | $\mathbf{8 3 . 0 - 8 6 . 9 \%}$ | D | $\mathbf{6 0 . 0 - 6 6 . 9 \%}$ |
| B- | $\mathbf{8 0 . 0 - 8 2 . 9 \%}$ | F | below $60 \%$ |
| C+ | $\mathbf{7 7 . 0 - 7 9 . 9 \%}$ |  |  |

Note: In order for this course to count for the Psychology major or minor, you must earn a grade of C or better in this course (The grade of C- will not satisfy this requirement).

| Exam \#1 (100 points) ___ | Exam \#2 (100 points) __ | Exam \#3 (100 points) | HW/CP (50 points) |
| :--- | :--- | :--- | :--- |
| Lab (100 points) __ |  |  | TOTAL: $\quad 1450$ |

Strive to do well!! The wisdom of the ages in academia (faculty and academic advisors agree) is that in order for students to do well in college classes, they should study outside of class approximately 2 hours for every hour of class time. In other words, for a class like ours that meets for three hours per week, you should be studying roughly 6 hours outside of class, per week-just for this class. This is particularly important in this class, which is a 300 level lab class worth four credits. Remember that this is a general guideline-you will need to determine how much time is necessary for you to reach your goals. College is much more than reading, listening to lectures and memorizing facts. You must also demonstrate the ability to apply your knowledge. For this class, I cannot possibly cover all the material in the textbook. I have eliminated sections of chapters that I know we will not cover. All other text material is fair game for exams. In other words, you WILL be expected to answer questions on exams about material from the text we did not directly discuss. If you have questions about text material, it is your responsibility to bring this to my attention either during class or during my office hours. My advice is to stay ahead with your readings; there is simply too much information (terms, concepts, definitions, research findings) to be able to wait until the last minute and expect to do well. Above all else, know that I am available to assist you. As a former colleague often said, "it is the student's job to learn, and the faculty's job to help them do it!"

Spring 2010 Exam Schedule: Changes in this schedule may be necessary, and you will be notified in advance when these situations arise. IMPORTANT: Online experiments are due no later than 12:00 pm (noon) on day of class listed. This is the time when I will tabulate results in order to discuss them in class. If you have not completed the lab by this time, you will be considered late and will not get credit for those labs.

| Date | Material to be Discussed | CogLabs Due |
| :--- | :--- | :--- |
| January 19 | Syllabus and Chapter 1: An Introduction to Cognitive Psychology |  |
| January 26 | Chapter 1: An Introduction to Cognitive Psychology (Continued) | Brain Asymmetry |
| February 2 | Chapter 2: Perceptual Processes I-Visual Recognition (pp. 31-57) <br> ***NOT Responsible for Speech Perception (pp. 58-64) | Signal Detection <br> Visual Search |
| February 9 | Chapter 3: Perceptual Processes II-Attention and Consciousness | Attentional Blink <br> Stroop Effect |
| February 16 | EXAM \#1 (Chapters 1, 2 \& 3) |  |
| February 23 | Chapter 4: Working Memory | Partial Report <br> Memory Span <br> Sternberg Search |
| March 2 | Chapter 5: Long-Term Memory | Encoding Specificity <br> Serial Position <br> False Memory |
| March 9 | SPRING BREAK-NO CLASS |  |
| March 16 | Chapter 5: Long-Term Memory (Continued) |  |


| March 23 | Chapter 8: General Knowledge | Implicit Learning |
| :---: | :---: | :---: |
| March 30 | EXAM \#2 (Chapters 4, 5 \& 8) |  |
| April 6 | NO CLASS (TUESDAY THAT FOLLOWS MONDAY SCHEDULE) |  |
| April 13 | Chapter 9: Language I-Introduction to Language and Language Comprehension (pp. 295-312) <br> ***NOT Responsible for Basic Reading Processes and Understanding <br> Discourse (pp. 313-328) <br> Chapter 10: Language II—Language Production (pp. 331 - 344) <br> ***NOT Responsible for Writing and Bilingualism (pp. 344 - 358) | Lexical Decision Word Superiority |
| April 20 | Chapter 11: Problem Solving (pp. 361 - 390) ***NOT Responsible for Creativity (pp. 390 - 396) |  |
| April 27 | Chapter 12: Deductive Reasoning and Decision Making |  |
| May 4 | Chapter 12: Deductive Reasoning and Decision Making | Typical Reasoning <br> Monte Hall <br> Risky Decision <br> Wason Selection Task |
| **May 7 | **FRIDAY** | COGLAB EVALUATION PAPER DUE (Hard Copy Dropped Off at Office by 4:00 p.m.) |
| EXAM WEEK <br> Tuesday, May $11^{\text {th }}$ (6:30 p.m. <br> - 9:30 p.m.) | EXAM \#3 (Chapters 9, 10 \& 11) |  |

NOTE: Spring Break, Semester Break and Final's week are scheduled by the college and will be adhered to. You are responsible for anything covered, assigned or due on dates preceding or following breaks. The $3{ }^{\text {rd }}$ exam must be taken at the time arranged by the Registrar's Office-please wait to make arrangements for starting your summer until this schedule is set, and please plan your departure accordingly.

