

## I. Critical Information

**Meeting Time:** Tuesdays and Thursdays, 11:00 – 12:15 p.m.

**Meeting Location:** Lecture Center D5

**Instructor:** Jim Pellegrino Ph.D.

Distinguished Professor of Cognitive Psychology and Education; Co-Director of *The Learning Sciences Research Institute*

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**Web Site:** <http://litd.psych.uic.edu/people/us/pellegrino/>

**Office:** BSB 1018B **Office Hours:** By appointment

### Teaching Assistants:

**Scott Hinze** -- handles course website, grading of Theory-Evidence essays, *iClicker* points, and Wadsworth CogLabs

**E-mail:** [shinze2@uic.edu](mailto:shinze2@uic.edu) & **Office:** BSB 1015

**Office Hours:** Tuesdays and Thursdays 12:30-2:00 and by appointment

**Jordan P. Lippman** – handles grading of Daily Life essays, UIC CogLabs, and Scientific Reasoning Activities

**E-mail:** [jlippman@uic.edu](mailto:jlippman@uic.edu) & **Office:** BSB 1029

**Office Hours:** TBD and by appointment

**Note:** all grading issues and questions must be discussed in-person during office hours - **not over email**.

**Required Texts** (the textbook and CogLab come as a bundled package in the bookstore)

1. **Cognitive Psychology: Connecting Mind, Research, and Everyday Experience (2<sup>nd</sup> edition, 2008)**, by E. Bruce Goldstein (Thomson/Wadsworth)

2. **CogLab Online Manual for Goldstein's Cognitive Psychology**

**Note:** Only new copies of the CogLab text come with the REQUIRED access code for CogLab. The manual is optional.

#### There are two options for purchasing the required texts for the course.

1) Purchase the bundled package (of the textbook, CogLab access code, and manual) from the bookstore.

2) Purchase a used 2<sup>nd</sup> edition textbook and then separately purchase an access code for **on-line CogLab, which is required for this course**. You can purchase the online access code (also called a pin code) separately for **CogLab** by going to <http://ecatalog.cengage.com/110/>, then entering "CogLab" in the search field in the upper right of the screen, then scrolling to select the 4<sup>th</sup> option -- "**CogLab Online Version 2.0 (with printed access card) 4<sup>rd</sup> Edition.**" (ISBN 978-0495107781) A word of caution: The CogLab access card is available for less at Amazon and other places online but you will not be able to make-up CogLab assignments if you do not have the access code before they are due.

**VERY IMPORTANT: DO NOT SET-UP YOUR WADSWORTH COGLAB ACCOUNT UNTIL YOU HAVE READ THE COGLAB FAQ & WATCHED THE DEMO ON OUR BLACKBOARD SITE**

### *iClicker* Personal Response Units

All students are required to purchase their own *iClicker* personal response unit from the UIC Bookstore

### Important Web Sites

Main Course Site (Blackboard): <http://blackboard.uic.edu/>

CogLab Web Site: <http://coglab.wadsworth.com>

Book Web Site: [http://www.wadsworth.com/cgi-wadsworth/course\\_products\\_wp.pl?fid=M20b&flag=student&product\\_isbn\\_issn=9780495095576&discipline\\_number=24](http://www.wadsworth.com/cgi-wadsworth/course_products_wp.pl?fid=M20b&flag=student&product_isbn_issn=9780495095576&discipline_number=24)

### Prerequisites

To take this course you MUST have taken Psychology 100 (Introduction to Psychology) and Psychology 242 (Introduction to Research in Psychology). Although you will likely be learning in-depth about Cognitive Psychology for the first time, you should come to this class with an understanding of the principles of psychology and experimental design you learned in PSCH 100 & 242.

### Section II: Schedule of Course Topics & Assignments

WK	Dates Sun - Sat	Weekly Topic	Reading <i>Due by Tue</i>	Required Essays & Scientific Reasoning Activities (SRA) <i>Due by 9 pm on date listed</i>	CogLabs & Other Assignments (extra credit activities are underlined) <i>Due by 9 pm on date listed</i>
<b>Unit 1: Semantic Memory</b>					
1	1/11 – 1/17	Cognitive Psych Intro Knowledge & Perception	Ch. 1 Ch. 3	Thurs 1/15 SR Activity 1 (SRA1)	Weds 1/14: Read Online Syllabus  <u>Sat 1/17: UIC On-line Background Knowledge Assessment &amp; Surveys (6 pts extra credit)</u>
2	1/18 – 1/24 1/19 MLK Day	Semantic Memory: Images & Propositions	Ch. 9	Wed 1/21 SR Activity 2 (SRA2)  <u>Thurs 1/22 - bring SRA2 essays &amp; printout to class</u>	Sun 1/18: Establish Wadsworth CogLab Account  <u>Mon 1/19 - CogLab 1 (3 pts extra credit): Mental Rotation, &amp; Link Word</u>
3	1/25 – 1/31	Semantic Memory: Processing & Org.	Ch. 8	Wed 1/28 SR Activity 3 (SRA3)	<u>Mon 1/26 - CogLab 2:</u> Implicit Learning, Lexical Decision, & Prototypes
4	2/1 – 2/7	Finish Semantic Memory	Review	Fri 2/6 “Theory-Evidence” essay 1 (THE1)	
<b>Unit 2: Episodic Memory</b>					
5	2/8 – 2/14	Memory Models & Multiple Memories	Ch. 5	Weds 2/11 “Daily Life” essay 1 (LIFE1)	<u>Mon 2/9 - CogLab 3:</u> Brown-Peterson, & Partial Report
6	2/15 – 2/21	Memory Models & Multiple Memories (cont)	Ch. 5 (cont)		<u>Mon 2/16 - CogLab 4:</u> Memory Span, & Operation Span
7	2/22 – 2/28	LTM I: Storage & Retrieval	Ch. 6	Weds 2/25 SR Activity 4 (SRA4)	<u>Mon 2/23 - CogLab 5:</u> Levels of Processing, & Encoding Specificity
8	3/1 – 3/7	LTM II: Forgetting & False Memories	Ch. 7	<u>Tues 3/3 – bring THE1 essay &amp; feedback from SRA4 to class</u>	<u>Mon 3/2 - CogLab 6:</u> Forgot it all Along, False Memory, & Remember/Know
9	3/8 – 3/14	Finish Episodic Memory	Review		
<b>Unit 3: Higher-Order Cognition</b>					
10	3/15 – 3/21	Intro to Language & Comprehension	Ch. 10	Fri 3/20 “Theory-Evidence” essay 2 (THE2)	<u>Mon 3/16 - CogLab 7:</u> Word Superiority, & Stroop
	3/22 – 3/28	<b>SPRING BREAK</b>			
11	3/29 – 4/4	Comprehension & Communication	Articles in blackboard	Weds 4/1 “Daily Life” essay 2 (LIFE2)	<u>Mon 3/30 - CogLab 8:</u> <b>UIC Verbal Tasks</b>
12	4/5 – 4/11	Problem Solving & Creativity	Ch. 11		<u>Mon 4/6 - CogLab 9:</u> Wason Selection Task, & Monty Hall
13	4/12 – 4/18	Decision Making & Reasoning	Ch. 12	Weds 4/15 SR Activity 5 (SRA5)	<u>Mon 4/13 - CogLab 10:</u> Risky Decisions, & Typical Reasoning
14	4/19 – 4/25	Intelligence	Articles in blackboard	Fri 4/24 “Theory-Evidence” essay 3 (THE3)	<u>Mon 4/20 - CogLab 11:</u> <b>UIC Visual/Spatial &amp; Reasoning Tasks</b>
15	4/26 – 5/2	Finish Higher-Order Cognition	Review	Weds 4/29 “Daily Life” essay 3 (LIFE3)	<u>Mon 4/27: Extra Credit Writing Assignment Due (max of 6 pts)</u>
	5/4 - 5/8	Finals Week	-		<u>Mon 5/4: UIC Online End-of-Term Evaluation (6 pts extra credit)</u>

### III. Components of the Course & Grading:

#### What Counts, for How Much, & Who to Ask About it

Course Component	TA Responsible	Points per instance	Total Points	Percent of Total
<b>Online CogLab Experiments (CLs)</b>	Scott for Wadsworth CLs Jordan for UIC CLs	3 pts per week for 10 weeks CLs 2-11 are required (CL 1 is extra credit)	30	15%
<b>Scientific Reasoning Activities (SRAs)</b>	Jordan	Five web-based activities worth 12 points each	60	30%
<b>“Theory-Evidence” Essays (THE)</b>	Scott	three 2-3 page essays worth 20 points each	60	30%
<b>“Daily Life” Essays (LIFE)</b>	Jordan/Scott	three 1-page essays worth 10 points each	30	15%
<b>Personal Response System Use in Class (PRS)</b>	Scott	1 pt per class period of use (maximum of 20 points)	20	10%
<b>TOTAL</b>			<b>200</b>	<b>100%</b>
<b>Extra Credit</b>	Jordan for Online Tasks Scott for written	Varies based on activity (max of 15 points = 3/4 letter grade)	15	Up to 7.5%

#### Grade Range

Letter Grade	Range of Raw Scores	Approximate Percentage Equivalent
A	180-200	90% and above
B	160-179	80% to 89%
C	140-159	70% to 79%
D	120-139	60% to 69%
F	119 or below	59% and below

## ***Details of the Required Components***

**Details on the requirements for all written assignments (including referencing and plagiarism, document length, formatting, and naming) are specified in Section VI of the syllabus.**

### **CHECK SYLLABUS SECTION VI BEFORE SUBMITTING ANY WRITTEN ASSIGNMENTS**

#### **(1) Participation in CogLab experiments (Maximum of 30 Points = 15% of grade)**

This document provides an overview of the CogLab assignments and where to find information about them. There are two types of online experiments (or CogLabs) that you will be required to participate in for this class. Most are part of the commercially available CogLab package published by Wadsworth. However, some have been created by Jordan Lippman and Dr. Pellegrino and are hosted at UIC (i.e., the UIC CogLabs) to supplement the labs available in the Wadsworth package.

Section IV of the syllabus is a *CogLab Users Guide and FAQ* on how to use both the Wadsworth CogLab package and the UIC CogLabs. **The CogLab Users Guide and FAQ is the first place to look if you have any questions about these assignments or grading issues.** It has information about how to purchase, register, use, and complete Wadsworth CogLabs and what to do if you have questions about a grade on a Wadsworth CogLab assignment. It also has information about how to complete the UIC CogLabs and what to do if you have questions about a grade on one of these labs. If the CogLab Users Guide and FAQ cannot answer your question it will tell you what information you need to bring with you when you contact Jordan so he can answer your questions. **We have also created demonstrations of how to set-up CogLab that you can download from the Blackboard site – section IV of the syllabus tells you more about the demonstrations including where to find them.**

The experiment(s) to be completed in a given week are listed in Part II of this syllabus in the schedule of activities and assignments (see the rightmost column). You will be required to complete CogLab's roughly every week for a total of 11 such assignments (***the first CogLab is for 3 points of extra credit and is an incentive to get your CogLab account properly set up as well as to get you familiar with using CogLab online to run experiments; the next 10 (CogLabs 2-11) are required and count 3 points each***). UIC CogLab assignments are listed completely in bold and are preceded by **UIC** in the title – the rest of the assignments are part of the Wadsworth package.

The number of specific CogLab activities you complete in a given week will vary from 1-3. Generally, the complete set of CogLab's for a given week will take between 20 and 60 minutes of time to complete. The Wadsworth CogLab assignments can be accessed at <http://coglab.wadsworth.com/> and the UIC CogLabs can only be accessed through the course's Blackboard website.

You will be doing experiments that relate to material covered in class close in time to completion of the specific CogLabs. Therefore, to receive credit you must complete the assigned CogLabs no later than Monday at 9 PM of the due date. **To receive credit, you must complete the CogLabs experiments for a given week BEFORE this deadline.** This will allow us to compile all the data for the class and present it for subsequent discussion in class that week. On-time completion of the experiment(s) for a specific week will yield 3 points.

**Warning:** To receive credit for a Wadsworth CogLab you must properly set-up your CogLab account prior to the due date and you must complete them honestly and faithfully; if you blow-off or just click through experiments you will not get full credit.

**(2) Scientific Reasoning Activities (5 activities, 12 points each for a Maximum of 60 points = 30% of grade)**

The five scientific reasoning activities have been designed to help you learn to create high quality arguments for this class and to promote the development of your scientific reasoning skills. There is a particular focus on developing your ability to think about the relationship between theory and evidence. More information about these assignments will be provided as they come up during the term but this document will provide you with a general overview.

These assignments will mostly be completed online (and will be accessible through the Blackboard site under assignments and scientific reasoning activities) and some will involve a minor written component. These activities are required but they are generally going to be graded pass/fail -- but if you do not take them seriously and just click through them or enter meaningless answers you will not earn full points. They will take you between thirty and sixty minutes to complete if you take them seriously and they should be very worthwhile assignments. You should take advantage of the pass/fail nature of these activities by trying your best when you complete them and by trying to make sense of your performance on each one. To help you accomplish this, we will provide you with a summary of your responses to some of these activities that you can bring with you to class so can refer to your answers when we discuss the activity as a class.

These activities are integrated into the course and with lecture in such a way that you should learn content as well as scientific reasoning skills. Because they are highly contingent on what we cover in lecture, they will only be made available (via Blackboard) once they have been introduced in lecture and must be completed before we can discuss them. You will have about five days to complete most activities but some may have to be completed within a smaller window. For example, SRA2 will be made available on Sunday 1-18 after activity 1 is completed and it must be completed by Wednesday 1/21 at 9 pm – however, it is about content that is covered in week 2, so we suggest you complete this after you have read the chapter and gone to class on Tuesday 1/20.

If you have questions or would like further feedback about any of the four activities and your performance, please make an arrangement to meet with Jordan but please be prepared to come to such a meeting with very specific questions and concerns so that he can optimize use of the time to be of the most assistance.

**(3) Theory-Evidence Essay Questions (3 questions, 20 points/question for a Maximum of 60 Points = 30% of grade)**

The general purpose of these 2-3 page (1000 word max) essays is to help you to learn to think like a scientist by doing what practicing researchers do all the time, using persuasive writing to communicate and convince others of their thinking about a topic. In addition, we think that by engaging in this process of constructing arguments, we hope you will create a deeper understanding of the content, and a richer appreciation of the nature of scientific knowledge.

As a student in this class you will be exposed to a lot of information within each major unit. For the theory-evidence essays we want you to focus in on a specific issue within a unit where there has been some controversy (either in the past or present) about the best way to understand how that mental process works.

We want you to make sense of the information that is presented to you in the textbook, in lecture, and through CogLab's and to be able to explain the phenomenon using appropriate terminology.

You must consider the predominant theories (which we may or may not direct you to) that have been put forth to make sense of the observations related to the phenomenon (e.g., studies) and to decide on the best theoretical explanation of the phenomenon. Your task will then be to construct a convincing argument that lays out how one should understand this phenomenon and why. This is an exercise in scientific writing and you must follow basic APA style conventions. However, to help frame the writing task, you can imagine that you are trying to write a compelling scientific argument to be published in "Eye on Psi Chi," which is the magazine of Psi Chi, the national undergraduate psychology honors society. Readers of this magazine (and your imaginary audience) include advanced (graduate-school bound) upper-level psychology majors from around the country who may or may not have taken a cognitive psychology class, as well as graduate students and professors from a number of sub-specialties of psychology.

You may assume that the audience has general familiarity with basic concepts (such as ones you learned about in your introduction to psychology course). However, you will need to define specific terms and concepts as well as theories and studies that are central to your argument (and provide citations as explained below). You should be friendly to the reader and provide enough guidance (in the form of preview or recap statements, or justifications for including things in your essay) so that readers can easily follow the logic of your argument. You can assume that the audience knows about many of the intricacies of experimentation, so descriptions of studies can include summaries of aspects of the method and results that are central to your argument but you don't need to include more details than that. You also must be explicit about why the evidence you cite provides support for the main claim of your argument. However, you should also be concise and keep the interest of the reader without making irrelevant or wild (unsubstantiated) statements. In general, you should avoid making claims that have no theoretical or empirical support and avoid using slang and informal language. Your reader, like any good scientist, will be skeptical of your reasoning and argument, so it is important to be logical and accurate. Follow the length, formatting, naming, and referencing guidelines specified in section VI of the syllabus.

## Resources to Assist You with the Theory-Evidence Essays

Past students have had difficulty with writing essays that ask them to create scientific arguments. Because the skills that you need to learn to do these well are very challenging and are a major focus of this course, we have provided a number of resources to help you write excellent Theory-Evidence essays. Many of the resources listed below are currently accessible from the Syllabus/Resources section of the Blackboard site, but some of these will be made available once the semester has begun:

- 1. The general description of the assignment from the syllabus (this document)**
  - This is the first place you should turn if you have questions about these essays.
  - This document will help frame the assignment by explaining your imaginary audience and how these essays should be written. It also provides an overview of the assignment and an explanation of its purpose and how your work will be evaluated. The actual grading rubric is provided in a separate document (explained below).
  - This document also lays out referencing and citation and formatting requirements.
- 2. Theory-Evidence essay grading rubric**
  - This will be used to evaluate your essays by the TA. However, you can also use it to help guide the writing or editing of your essay. For instance, you can try to answer the questions listed for each dimension of the rubric and then try to modify your essay so that the answer is a favorable one.

- This document also provides prototypical descriptions of essays that might receive excellent, average, and poor evaluations on each dimension. From these sketches you should be able to extrapolate what above and below average answers might look like. Understanding these distinctions will help you understand how the TA will be evaluating your essays.
3. **Theory-Evidence essay formatting template:**
    - You can use this to guide the formatting of your essay so you don't lose points needlessly.
  4. **Theory-Evidence essay writing worksheet**
    - This document should help you to outline the components of your arguments so that when you write them, you will have all the basic information you will need to write your essay (and where you learned about it) summarized in one place.
  5. **The "Scientific Reasoning" activities (or SRAs)**
    - The scientific reasoning activities have been designed to help you learn to create high quality arguments for this class and to promote the development of your scientific reasoning skills. There is a particular focus on developing your ability to think about the relationship between theory and evidence. More information about these assignments will be provided as they come up during the term.
    - You should take advantage of the pass/fail scientific reasoning activities by trying your best to do them and by trying to make sense of your performance on each one.
    - If you have questions or would like further feedback about any of the four activities and your performance, please make an arrangement to meet with Jordan but please be prepared to come to such a meeting with very specific questions and concerns so that he can optimize use of the time to be of the most assistance.

#### **(4) Daily-Life Essays (3 questions, 10 points/question for a Maximum of 30 Points = 15% of grade)**

The general purpose of these 1-1.5 page (500 word max) essays is to connect the content of a given section of the course to activities in everyday life. We want you to show an understanding of how the material studied in the course helps us better understand some aspect of our everyday, real-world cognition.

We want you to think about doing this as a "Dear Grandma" essay with two parts.

In the first part you are to write as if you are telling your "grandmother" what it is you have been studying in the course and why that is of interest to you and her – why it relates to some aspect of everyday cognition that she would understand. This could be schemas and scripts for Section 1, memory failure for Section 2, and problem solving or incorrect reasoning in Section 3 (remember, these are just examples, there are lots more topics in each section that you could write about). Here's how you might start this -----

*Dear Grandma,*

*I know you sometimes wonder whether I'm learning anything worthwhile when I take those courses at UIC so I want to tell you about what I'm learning in one of them. Right now we are studying about how people .....*

In the second part, you are to tell your grandmother about some personal experience you had in the last few weeks that illustrates the section topic and how that experience illustrates some point about the way the mind works according to cognitive theory. You must describe the particulars of the event, what the cognitive explanation of the event would be, and how you now understand it better than you did before taking this course. Here's how you might start this part -----

*You know Grandma, I never really gave much thought to this aspect of my everyday activity but just last week the following happened and I realized that it was a good example of what they're talking about in this course. I was ..... What's really interesting about this is that I now understand why this may have happened and what it probably means. You see, the research says that ..... which is a pretty good explanation for .....*

*See you soon Grandma – Love ME*

Remember, this is to be written in a style that communicates to your “grandmother” – it can be humorous and self-deprecating but it should also be intellectually honest and to the point. Don't make stuff up – take some time and reflect on the many aspects of your daily cognition, much of which illustrates the very ideas and principles that this course is all about. That's what we want you to write about!!!

In grading these essays, we will be “lenient” in the sense that we are looking for an interesting description of an actual daily cognitive event in your life with an honest attempt to explain and understand that personal cognitive experience in the context of the course's content. Be sure to follow the length, formatting, naming, and referencing guidelines specified in section VI of the syllabus.

**(5) In-class Responding via *iClicker* Personal Response Units (1 point per class period of use for a Maximum of 20 Points = 10% of grade)**

Because this is a large “lecture” class, it is often difficult to engage everyone with the content being presented and/or to get people's reactions to specific questions or ideas. To make class more interesting and engaging for everyone, we are going to make use of a technology system known as *iClicker* personal response systems. Each member of the class must purchase at the UIC Bookstore their own small *iClicker* hand-held unit for use throughout the semester. We expect you to bring it to class everyday since we will have in-class activities that make use of the response system. We will tell you in class and via email how to register your unit for use in this class so we can identify you when you respond and so you can earn your participation points.

Throughout the semester we will make use of the *iClicker* response system as a way to promote thinking and discussion – we will use it during almost all classes. Each class period where the *iClicker* system is used will earn you 1 participation point up to a maximum of 20 points over the semester. To earn the 1 point for that class period you will need to respond to all the items where an *iClicker* judgment is required. This number will vary from class to class and may be as few as 2 times/class to 5+ times/class. We will know if you were there and used it – if you were not there, didn't respond to all the items, or left it home too bad! To ensure you get credit you should be sure to respond to all the *iClicker* questions posed during a class. If you think you should have received credit for responses on a day but you didn't receive it you have three weeks form day of lecture to contact Scott and provide your name, *iClicker* number, and UIN. If it was his mistake he will immediately give you points. If there is no record of your *iClicker* responses we cannot give you credit. However, the fact that it is only worth one point and the fact that we have a policy in place to ensure you will get credit if you were there and using your *iClicker* unit should alleviate your concerns.

IF YOU THINK YOUR *iClicker* UNIT IS NOT WORKING, YOU CANNOT RECEIVE CREDIT UNLESS YOU APPROACH THE LECTURER AT THE END OF CLASS AND PROVIDE HIM OR HER WITH YOUR NAME, UIN, EMAIL, *iClicker* NUMBER (SHOW HIM OR HER THE UNIT), AND THE CONTENT OF THE FIRST QUESTION AND YOUR ANSWER. YOU MUST ALSO SEND AN EMAIL TO SCOTT AND THE LECTURER



AFTER CLASS PROVIDING ALL THIS INFORMATION. THERE WILL BE NO EXCEPTIONS TO THIS POLICY AND NO RECTROACTIVE CREDIT FOR *iClicker* RESPONSES WILL BE GIVEN.

In prior terms, we found that a few students were coming to class with two response units (theirs and another student's unit). This is not allowed. If you cannot make it to class, you cannot earn response system points. If we catch someone using a unit that is not theirs, we will take note of the numbers of both units and you will lose the opportunity to earn response system points.

## **Extra Credit Activities (Up to an additional 15 points = 7.5% of grade)**

We realize that students often fail to demonstrate all that they have learned either through performance on the take home questions and through other required activities. There are also occasions where students may not be able to complete an assignment on time and lose points. The grading for this course is based on a "mastery" and performance system rather a normal curve. To provide students with the opportunity to obtain the best possible grade for the course and demonstrate their mastery of course content, we have provided a set of options that allow students to earn extra credit points. These points can count toward your overall point total for a final grade. Thus, if you miss some required assignments or lose some points on an essay question, you can make them up through extra credit work. Listed below are the various extra credit options and their point values. You can earn up to a maximum of 15 extra credit points (one letter grade) by various combinations of extra credit work. Be sure to note the requirements and due dates for each extra credit activity.

### **(A) CogLab # 1 (3 points)**

We want you to set up your CogLab account as soon as possible and get started on completing the CogLab assignments. As an incentive to do so, and because some people join the course during the 2<sup>nd</sup> week, we have made the first CogLab assignment an extra credit activity. **It is worth 3 points if you finish it by the dates listed for completion (1/19)**. We encourage you to do it if you can since this is an easy way to start accumulating extra credit points. Remember, you can only get credit if you properly register and set up your CogLab account before the due date for a lab. See the instructions in Section IV of the syllabus (or above) for more information.

### **(B) Beginning-of-Term Background Knowledge Assessments and Related Surveys (6 points)**

We are interested in how the students in this course think about psychology, science, and the scientific reasoning process. To help us get a handle on these issues, we have selected a set of brief surveys for you to complete. They should take no longer than an hour and are relatively straightforward. **We strongly encourage you to complete this activity that is accessible via the course's Blackboard site!!!!**

**Beginning of Term Background Knowledge Surveys Due Date: Saturday January 17<sup>th</sup> by 9 PM.**

### **(C) Extended End-of-Term Course Evaluation (6 points)**

During the last week of class, we will make available an end of term on-line course evaluation questionnaire, which is described subsequently in the section on "*Redesign of Psychology 352: Cognition and Memory.*" **We strongly encourage you to complete this activity that will be accessible via the course's Blackboard site!!!!!!**

**Extended On-line End-of-term Course Evaluation Due Date: Monday May 4<sup>th</sup> by 9 PM.**

**(D) Complete ONE of the Written Assignment Options for Extra Credit (up to 6 points)**

**In case you added the course late or failed to complete one of the other extra credit options, you can complete ONE of the following two written assignments and earn up to 6 points in extra credit.**

We have to be able to comprehend your ideas in order to give you credit for them. Therefore, we suggest you re-read your paper and/or give it to someone else to revise after you have finished it to make sure your sentences are clear, your thoughts are accurately expressed, and all parts of the assignment are completed – these will be graded somewhat leniently but you will only get full credit for quality work.

These assignments should be 2 pages long (850 words max) and you must follow the requirements for writing assignments (formatting, referencing, and other) specified in section VI of the syllabus.

**Written Extra Credit Assignment Due Date: Monday April 27<sup>th</sup> by 9 pm.**

**As with other written assignments you are to “turn this in” by uploading a WORD document into the proper folder on the Blackboard site for the course (under Assignments, Extra Credit, then Written Assignment).**

**1) Extra Credit Written Assignment Option 1: Attend and Report on a Cognitive “Event”**

You can attend a cognitive “event” and get credit if you write up a quality reaction. A cognitive “event” is a presentation or colloquium with a cognitive theme.

The written report should contain a brief summary of the topic of the presentation and a discussion of how the content was or was not related to topics covered in class. You should describe the cognitive themes from class in sufficient detail to explain how the presentation added to your knowledge of the topic and to explain any differences between what was presented in class and at the event. In addition, you should describe what you learned from the event and how it made you think differently about the topic. Remember, you will get credit based on the quality not the length of this assignment.

**Note:** If you plan on doing this option, you might want to discuss the event you are planning to attend with us beforehand because seating may be limited at some events and you will only get credit for events that are related to class content. Alternative proposals for what might count as a cognitive event will be entertained. We may announce some cognitive events in class, over email, or on the blackboard site. You can also check the following websites for announcements of relevant events:

Cognitive Psychology Brown Bags at UIC: <http://litd.psych.uic.edu:8888/brownbag/>

Colloquia sponsored by Learning Sciences Research Institute: <http://www.lsri.uic.edu/>

**2) Extra Credit Written Assignment Option 2: Read and React to a Cognitive Article**

You can choose one of the following articles to read for the purpose of writing a short report about its contents. For your report, type each of the questions below in bold and then answer each one in about a paragraph. The answers to the last two questions should be at least 5 sentences each.

1. What was the purpose of this research?
2. What did the researchers do? (Summarize method, including independent variables, groups and manipulation(s), and dependent variable(s))
3. What were the main results?
4. What is the take-home message (conclusion)?
5. Are there any problems with the research or do you have any criticisms? Is there anything you would do differently? You should use this opportunity to evaluate the research using the skills you have learned this term.
6. How does the content and/or results of this article relate to class content?

**Possible articles to use for this assignment:**

- Beilock, S.L., & Carr, T.H. (2005). When high-powered people fail: Working memory and "choking under pressure" in math. *Psychological Science*, 16(2), 101-105.
- Conway, A.R.A., Cowan, N.A., & Bunting, M.F. (2001). The cocktail party phenomenon revisited: The importance of working memory capacity. *Psychonomic Bulletin and Review*, 8, 331-
- German, T.P., & Barrett, H.C. (2005). Functional fixedness in a technologically sparse culture. *Psychological Science*, 16(1), 1-5.
- Hecht, H., & Proffitt, D.R. (1995). The price of expertise: Effects of experience on the water-level task. *Psychological Science*, 6(2), 90-95
- Lewandowsky, S., Stritzke, W.G.K., Oberauer, K., & Morales, M. (2005). Memory for fact, fiction, and misinformation: The Iraq war 2003. *Psychological Science*, 16(3), 190-1995.
- McCarley, J.S., Kramer, A.F., Wickens, C.D., Vidoni, E.D., & Boot, W.R. (2004). Visual skills in airport-security screening. *Psychological Science*, 15(5), 302-306.
- Schmolck, H., Buffalo, E.A., & Squire, L.R. (2000). Memory distortions develop over time: Recollections of the O.J. Simpson trial verdict after 15 and 32 months. *Psychological Science*, 11(1), 39
- Strayer, D.L., & Johnston, W.A. (2001). Driven to distraction: Dual-task studies of simulated driving and conversing on a cellular telephone. *Psychological Science*, 12, 462-466.

## ***IV. CogLab Users Guide and FAQ***

### **Overview of CogLab and this document**

There are two types of online experiments (or CogLabs) that you will be required to participate in for this class. Most are part of the commercially available CogLab package published by Wadsworth. However, some have been created by Jordan Lippman and Dr. Pellegrino and are hosted at UIC (i.e., the UIC CogLabs) to supplement the labs available in the Wadsworth package.

Section III of the syllabus provides an overview description of the assignments.

This Users Guide and FAQ is the first place to look if you have any questions about the Wadsworth CogLab package or the UIC CogLab, or if you have questions about grading issues. The following questions are answered in this document:

**Scott ([shinze2@uic.edu](mailto:shinze2@uic.edu)) is responsible for Wadsworth CogLabs**

#### **Wadsworth CogLab FAQs Answered Below (white background – starts on page 2):**

1. What is the Wadsworth Group ID and Password for our Class?
2. How do I purchase access to Wadsworth's Online CogLab?
3. When do I need to set-up and register my Wadsworth CogLab account?
4. How do I set-up and register my Wadsworth CogLab account?
5. How do I start completing Wadsworth CogLabs?
6. What do I do if I cannot set-up my Wadsworth CogLab account, forgot my Wadsworth CogLab log-in ID or password, or I cannot complete Wadsworth CogLab experiments?
7. I think I set everything up correctly, can you check to make sure I did (and fix it if I didn't)?
8. I completed all the labs for a Wadsworth CogLab assignment on time, but I didn't get any (or just partial) credit in Blackboard, what happened?

**Jordan ([jlippman@uic.edu](mailto:jlippman@uic.edu)) is responsible for UIC CogLabs**

#### **Online UIC Measures FAQs Answered Below (gray background – starts on page 7): *Including UIC CogLabs, Online Extra Credit & Scientific Reasoning Activities***

1. How, when, and where do I complete the UIC Online Measures?
2. How is credit assigned for UIC Online Measures?
3. My computer crashed while I was doing a UIC online task, what should I do?
4. I just completed a UIC online task, how do I know if I will get credit?
5. I completed the all the parts of the UIC Online assignment on time, but I didn't get any (or just partial) credit in Blackboard, what happened?

Scott ([shinze2@uic.edu](mailto:shinze2@uic.edu)) is responsible for Wadsworth CogLabs

## Wadsworth CogLab Package FAQs Answered

### 1. What is the Wadsworth Group ID and Password for our Class?

The group ID: *psch352spring09*.

The Group access password: *psch352*

### 2. How do I purchase access to Wadsworth's Online CogLab?

**There are two options for purchasing the required texts for the course.**

1) Purchase the bundled package (of the textbook, CogLab access code, and manual) from the bookstore.

2) Purchase a used **2<sup>nd</sup> edition** textbook – **may be hard to find** -- and then separately purchase an access code for **on-line CogLab, which is required for this course**. You can purchase the online access code (also called a pin code) separately for **CogLab** by going to <http://ecatalog.cengage.com/110/>, then entering "CogLab" in the search field in the upper right of the screen, then scrolling to select the 4<sup>th</sup> option -- **"CogLab Online Version 2.0 (with printed access card) 4<sup>rd</sup> Edition."** (ISBN 978-0495107781) *A word of caution: The CogLab access card is available for less at Amazon and other places online but you will not be able to make-up CogLab assignments if you do not have the access code before they are due.*

### 3. When do I need to set-up and register my Wadsworth CogLab account?

**VERY IMPORTANT; DO NOT SET-UP YOUR WADSWORTH COGLAB ACCOUNT UNTIL YOU HAVE READ THIS FAQ & WATCHED THE DEMO ON OUR BLACKBOARD SITE**

Although the first CogLab is extra credit, you will have to properly register and then set-up your account to receive the extra credit for the CogLab. At the very latest, you must set up CogLab before the due date of the 2<sup>nd</sup> CogLab. If you do not properly set up CogLab by this date, you will not receive credit for any of the CogLab assignments until you do set it up properly; **THERE ARE NO EXCEPTIONS AND WE DO NOT GIVE CREDIT RETROACTIVELY**. The following instructions will walk you through setting up your account and explain how to use the Wadsworth CogLab System. For more information, consult the CogLab Student Manual.

### 4. How do I set-up and register my Wadsworth CogLab account?

First, if you have not already done so, purchase an access (or e-Pin) code for CogLab. Second, follow these instructions:

1) Open your Web browser and go to

<http://coglab.wadsworth.com/Information/studentscreate.shtml>

2) Go to the bottom of the Web page. There should be three text fields and one button. If these are not visible, your Web browser does not have Java ([www.java.com](http://www.java.com)) enabled or has an out of date version of Java. Go to the [CogLab Browser Check](http://coglab.wadsworth.com/support/browsercheck.html) (<http://coglab.wadsworth.com/support/browsercheck.html>) page for details.

3) You should read the following steps and they are also illustrated in a demonstration we have created.

- a) In the top text field, enter the group ID: *psch352spring09*. In the bottom text field, enter the access password: *psch352*. In the third text field, enter your registration code. After filling in all the text fields, click on the *Submit information* button.

*Note: The registration code could be in one of several formats. It may be on a sticker on the inside front cover of your CogLab Student Manual. It may have been bundled with your textbook on a postcard. Or, you may have purchased a registration code electronically (sometimes this is also called an e-Pin). **Do not purchase used CogLab registration codes!** If the registration code has already been used, it will not work for you. Each valid registration code can be used only once.*

- b) Your Web browser will connect with the CogLab server to verify your information. If the information is correct, a new window will appear. Make sure that the school name, instructor name, and class name are correct. If they are not, you may have accidentally accessed a different group than your instructor intended. The field marked as 'Your log-in ID:' lists your assigned log-in ID, which you will use to access your CogLab account and complete experiments. **You cannot change this log-in ID, so write it down.**

- c) **THIS IS THE MOST IMPORTANT PART (because failing to do this correctly will prevent you from being able to get credit on CogLab assignments):**

1. In the spot for your first name enter your UIN (the 9 digits on your i-card), then a comma and then your full name (first & last name separated by a space)
2. In the spot for your last name enter “psch 352” without the quotation marks.
3. Then enter a password, and a security question and answer.

*For the security question and answer, try to pick something easy to remember but would be difficult for anyone else to guess (e.g., the name of your first pet).*

4. Click on the **Apply** button.

*Your Web browser will again connect with the CogLab server to save your data and register your account. If all of your information is valid it will be saved, and then your registration code will be marked as being used.*

- d) When your data are saved, your Web browser will load a new window that lists all

the properties of your CogLab account. Especially important is the log-in ID and password. Print or save this Web page for your records.

*Note:* some pop-up blockers will prevent this window from appearing. If your data do not appear, click the link below the text fields to view this page. Go to the [CogLab Browser Check](#) page for details.

Make sure your Name is entered correctly it should be displayed in the following format: “**psch352, UIN, First and Last Name.**” If it is not entered like this you will not be able to start earning credit when you complete Wadsworth CogLabs. However, you can follow the steps for question 7 below. Justin will use this information to connect your CogLab data with your grades in Blackboard.

- 4) *The next time a Wadsworth CogLab is due and grades are posted on Blackboard (up to a week after the due date), you will see that your Wadsworth CogLab log-in ID is listed in your Blackboard gradebook (your login ID has a phrase with a hyphen and a number after the hyphen, and only the number will be entered here) as will be the credit for the CogLab assignment you completed. Make sure that the Wadsworth CogLab log-in ID listed in your Blackboard gradebook is the same as the one in your Wadsworth CogLab account. If they are not identical, **contact Justin immediately** because you will not get credit for Wadsworth CogLabs until they are identical.*

**5. How do I start using Wadsworth CogLab Online to complete assignments?**

- 1) To start doing experiments, point your Web browser to <http://coglab.wadsworth.com>. Select the experiment that you want to perform by clicking on the link. Read the information and instructions carefully. At the bottom of the page are two text fields and two buttons. Enter your log-in ID and password and then click on the *Submit information* button. After your log-in information is verified, the *Start experiment* button can be selected. Click on the *Start experiment* button to open a new window where the experiment will take place. You need to read the instructions before you can complete the experiment!
- 2) At the end of the experiment, the browser window will load a summary of your data for the experiment. When you see this window, you are finished with the experiment.
- 3) You can access details about your account, and view averages from your group and across the nation by directing your Web browser to <http://coglab.wadsworth.com/Information/studentsaccess.shtml>.
- 4) If you have any problems, contact technical support at <http://coglab.wadsworth.com/support/techsupport.html>

**6. What do I do if I cannot set-up my Wadsworth CogLab account, forgot my Wadsworth CogLab log-in ID or password, or I cannot complete Wadsworth CogLab experiments?**

Wadsworth recently released this version of CogLab and we cannot access your account or help you setup your accounts. However, we suggest you follow these four troubleshooting steps:

First, some general requirements are that you need to use a broadband internet connection. You also

need to use a compatible browser, so check if yours is compatible at <http://coglab.wadsworth.com/support/browsercheck.html>) and either upgrade or use a different computer: you can try downloading the newest version of java ([www.java.com](http://www.java.com)), try using firefox ([www.firefox.com](http://www.firefox.com)) instead of Internet Explorer, or try a Mac as well.

Second, if you are still having trouble accessing your account or completing labs once your account is set-up, please use the support resources available from Wadsworth (<http://coglab.wadsworth.com/support/help.html>).

Third, if your account is set up and you are registered properly **but you forgot your ID and password**, then look in the blackboard gradebook for your Wadsworth ID, and use the “forgot your password function” provided by Wadsworth on their website.

If all this fails, your fourth option is to email Scott at [shinze2@uic.edu](mailto:shinze2@uic.edu) and specify your UIN, full name, and Wadsworth CogLab log-in ID. Make sure to provide a detailed description of everything you tried and what happened in response as well as what error messages you received or what went wrong. He needs all this information so he can help you.

7. **I think I set everything up correctly, can you check to make sure I did (and fix it if I didn't)?**

We cannot check to see if you have properly registered your Wadsworth CogLab account, and we cannot fix your account if you failed to set it up properly. However, you can do this yourself. Follow the steps below and watch the demonstration “How to fix your CogLab set-up” posted at <http://lited.psch.uic.edu/courses/qa/spring09/CoglabSetupDemos.html>

There's a link on the main CogLab page (under "Students" under "Account Information") to "Access your account". The link is <http://coglab.wadsworth.com/Information/studentsaccess.shtml>. Once logged into your account you can access your account to see if it was properly registered and you can modify your information if it was not. **It is important that you do this, as no retroactive credit is given for improperly set-up CogLab accounts.** When you look up your account information, your Name must read as **psch352, UIN, First Name Last Name**. If it is not, you must fix it. *Note: you only have one field for your name now instead of the two fields for First and Last name when you initially registered but that is ok.*

According to Wadsworth tech support, it is easy to change your CogLab account information, such as your Name, once you registered. You can update your name by going to your account information, deleting your security answer, question, and password. Then you will be able to delete and rewrite your name in the proper format described above. Then click save (or apply) and log-out of your account. When you have done this, log back into your account to make sure your name was updated.

*One week after the next CogLab assignment is due date, check the Blackboard gradebook. Your Wadsworth CogLab log-in ID number (without the part before the hyphen) should be stored in your gradebook. IT MUST BE IDENTICAL TO the log-in ID shown in your Wadsworth CogLab account. If it is not, either (a) you did not properly register your CogLab account and won't get credit for CogLabs until you do, or (b) it was Scott's mistake and you should email him immediately with ALL OF THE FOLLOWING: your UIN, full name, Wadsworth CogLab log-in ID, the "Name" in your Wadsworth CogLab account, and your CogLab ID as listed in the Blackboard Gradebook.*



**8. I completed all the labs for a Wadsworth CogLab assignment on time, but I didn't get any (or just partial) credit in Blackboard, what happened?**

Grades for Wadsworth CogLab assignments are posted up to a week after their due date in Blackboard. Until the grades are posted, we cannot tell you if you will get credit. However, there is something you can do before grades are posted -- you can login to your Wadsworth CogLab account and view all the labs you have completed and when. If you completed all the labs for a week before the due date you should get full credit when grades are posted -- provided your CogLab account is registered properly. Registering your CogLab account means you completed all the steps listed under question 4 above. You can follow question 7 to check and fix your account.

If you didn't get full credit for a CogLab assignment but you think you should have, either you didn't complete one or all the labs before the deadline or you did the wrong labs. However, it is also possible that Scott made a mistake. If you completed all the labs for a given week and did them before the deadline you should have gotten full credit. If you didn't get any credit, or if you got partial credit, follow the troubleshooting steps below.

Troubleshooting steps:

- 1) You should double-check that you completed the correct labs for a given week, which are listed in Section II of the syllabus. Surprisingly, more often than not, it turns out students who thought they should have gotten full credit but didn't, actually didn't do the correct labs -- or they did them after the due date. If either of these things happened, you will not be able to earn credit for the lab in question, but you may have completed a future lab early -- which will save you time later and is something positive.
- 2) Check to make sure you entered the correct information for your name in your Wadsworth CogLab Account. To check your account there's a link on the main CogLab page (under "Students" under "Account Information") to "Access your account". The link is <http://coglab.wadsworth.com/Information/studentsaccess.shtml>. Once logged into your account you can access your account information to see if your Name was properly entered and you can modify your information if it was not. **To properly register, your "first name" must actually be your full name followed by a comma and then your netid, and your "last name" must be your UIN.** If it is not, then you have not registered and set-up CogLab properly and you should fix it before the due date of the next CogLab so you can get credit when you complete it.
- 3) Make sure the CogLab log-in ID listed in blackboard exactly matches your actual Wadsworth CogLab log-in ID (*if the login ID has a phrase with a hyphen and a number after the hyphen, only the number will be entered in blackboard*). If it is not identical to your actual login ID, then you will not get credit even if you complete the labs on time. If it is not properly listed, and you have checked your Wadsworth account to make sure it was properly setup (and it was set up before the due date of the lab in question), then follow the instructions in the next step.
- 4) If all of this checks out, send Scott an email (at [shinze2@uic.edu](mailto:shinze2@uic.edu)) with your UIN, full name, Wadsworth CogLab login ID from the online account, and exactly what is entered as your name in your Wadsworth, **and the date and time you completed each of the labs in question.** If multiple weeks of CogLab are in question, then provide the date and time for each

lab of each week. If the information you provide me doesn't match my records, then I will ask you to print out the first page of the data for the experiments in question and hand that in to me (in my mailbox in BSB 1009) with your email, UIN, full name, CogLab ID, and what is entered as your Identifying Name in CogLab and your CogLab ID in the Blackboard Gradebook. When I receive this appeal from you, I will investigate the issue further. If it does check out, then I will give you credit.

Jordan ([jlippman@uic.edu](mailto:jlippman@uic.edu)) is responsible for UIC CogLabs

## UIC CogLab Package FAQs Answered

### 1. How when and where do I complete UIC CogLab assignments?

You will be directed from Blackboard to a website we have created that has instructions and then links to the tasks. You must follow these instructions to receive credit

### 2. How is credit assigned for UIC CogLabs?

To receive credit for UIC CogLabs you must follow the detailed instructions for each lab. Generally, you need to enter your UIN to receive credit and you will receive a thank you page at the end of the task that tells you your data have been saved. **It is a good idea to print this page and write the exact date and time you completed the assignment in case there are any problems.**

Do not do any task or any part of any task more than once or you will not get credit. If your computer crashes or you think you should do it again, contact Jordan before doing anything.

Most importantly, do not blow off these tasks. People who click through or answer randomly may not get full credit. Assignment of credit is based on criteria that we have established over multiple semesters and decisions (reflected in the points in Blackboard) are final except in extreme cases or errors.

### 3. My computer crashed while I was doing a lab, what should I do?

If you were only in the instructions than you can restart your computer and start the lab over. However, if you had already began the lab, then email Jordan with your full name, UIN, and the date and time you did the lab and an explanation of what happened. **DO NOT DO THE LAB TWICE -- IF YOU DO, YOU WILL NOT GET CREDIT.**

### 4. I just completed a lab, how do I know if I will get credit?

Grades for UIC CogLabs are posted in Blackboard up to two weeks after their due date. Until that time we cannot tell you if you will get credit. However, if you see the thank you page at the end of the lab with your UIN number on it, then your data has been recorded. If you finished it on time and you answered it honestly (meaning you didn't just click through and pick random answers), then you should get credit.

If anything fishy happened while completing your lab, like it randomly asked you for your UIN in the middle of the task, then email Jordan with your full name, UIN, and the date and time you did the lab and an explanation of what happened.

### 5. I completed the lab on time, but I didn't get any (or just partial) credit in Blackboard, what happened?

If you completed the lab after the deadline then you didn't get credit. If you clicked through the lab, didn't answer questions honestly, or didn't try your hardest, then you probably got partial credit.

If you are sure you completed it on time and you did try your best to answer all the questions, and grades have been posted on Blackboard but you either didn't receive a grade or you received partial credit, then, send Jordan an email with your full name, UIN, and the date and time you did the lab – and an explanation of anything fishy that happened.

## ***V. Narrative Information About the Content, Structure, Organization, & Requirements of the Course***

### **Course Objectives**

**We hope that this course will be an enjoyable, educational, and rewarding experience for everyone!**

This course will provide an introduction to the scientific field of cognitive psychology with a special emphasis on the relationship between theories and empirical evidence.

Our goal is not for you to memorize a list of names and dates and regurgitate them. Rather, we want you to develop an understanding of the major themes in cognitive psychology and to be able to communicate intelligently with others about them. In order to do this, you will need to become familiar with important definitions, theories, researchers and research methods and findings. **A major goal of this course is for you to learn to write effective scientific arguments while simultaneously developing your scientific thinking skills.**

After taking this course you will be able to explain what cognitive psychology is and why it is a distinct branch of psychology. You will have a basic understanding of the issues, theories and research methods of cognitive psychology. You will be able to critique research and findings and evaluate whether or not a piece of evidence provides support for a particular theory. You will be able to effectively use the basic terminology associated with cognitive psychology to interpret and discuss psychological issues. You will be able to see similarities and differences between competing theories or models within a specific topic area and - more importantly - you will be able to notice themes that cut across specific domains in cognitive psychology. You will develop a greater appreciation of how cognitive issues are present in everyday life and in popular culture. You will learn to be more critical of claims made in the media and elsewhere about cognition and memory. You will gain a better appreciation and awareness of your own thought processes and you will be able to use these processes more effectively.

To accomplish these goals, the course has been designed to include a number of activities and assignments that are intended to help you gain a deep understanding of the content and reasoning skills. So, this is a reading and writing intensive course and you will have to do between 4 and 8 hours of work each week outside of class to do well. However, the work you will do is not intended to be busy work.

### **Overview of Cognitive Psychology**

Cognitive psychology is not like many other fields of science. Its object of study, the mind, is not directly observable. Cognitive psychologists make inferences about the properties of the mind based on indirect observations of how people perform on carefully designed tasks. Therefore, to properly evaluate claims and put them in perspective, students of cognitive psychology must understand the research methods and logic used to make conclusions.

Much of what you will learn in this course is not 'fact' in the traditional sense of the word. All theories and conclusions are provisional in the sense that they are the best explanations of experimental observations we have to date. However, they are not set in stone and often there are multiple competing explanations of

cognitive phenomena. Theories are evaluated based not on who believes them but how well they can explain the outcomes of various observations. Theories are also evaluated in terms of explanatory power, usefulness for promoting research, applicability, and evolutionary significance.

## **Course Content and Organization**

Generally, we will study the mental processes involved in acquiring, interpreting, storing, transforming, using, and of course forgetting knowledge. The content of this course has been organized to emphasize the role that knowledge has in memory and cognition.

The first and longest unit in this course will focus on the nature, form, organization, creation and use of knowledge stored in memory. We will begin discussing the profound influence knowledge can have on perception. Next, we will cover the nature and organization of knowledge representations. Then, we will consider how we are able create new memories and bring knowledge to bear on tasks despite the limited capacity of the human information processing system. In this second section we will learn about traditional and revised structural models of memory, strategies for improving memory, and the distortions (and exceptional memory) that can occur in memory as a consequence of the way the system works.

The second half of the course will cover aspects of “higher order” cognition including the relationship of language to thought and the comprehension and expression of thoughts with language. From there we will move on to various higher order cognitive functions such as reasoning, decision-making and problem solving, creativity and intelligence.

## **Philosophy of Teaching and Learning and Rationale for Course Design**

### *Philosophy of Teaching*

We love learning as well as thinking and studying about how people learn. We also love teaching, as well as thinking and studying how best to educate people. We think that student learning is best facilitated through the careful and principled design of learning environments and courses that foster the development of discipline specific knowledge and skill, increase interest and motivation to study the discipline, and as well as the development of life long learning skills and critical thinking. This is accomplished by basing design decisions on principles of learning and cognition (some of which are described in this document) and by coordinating teaching strategies (pedagogy), domain content (e.g., memory and cognition), and assessment techniques. We also believe that it is important to allow students the opportunity to interact with us and provide feedback about course design so that we can tailor the course to the needs of the current class of students.

We believe that students come to learning environments with a naïve understanding of the subject, with different cognitive strengths and weaknesses, learning styles and strategies, levels of self-awareness, confidence in their skills, as well as personal experiences, interests and socio-cultural-economic backgrounds. We believe that all these factors, as well as the nature of the content, our expectations of students, philosophy of teaching, classroom demeanor and interaction with students, and our ability to sense the aspects of the content that students struggle with all impact student achievement. We believe that fostering community learning with a relaxed, friendly and somewhat informal atmosphere is important.

Ideally, students are motivated to learn by an intrinsic intellectual curiosity about the mind, knowledge, learning, intelligence and other cognitive topics. However, to facilitate the development of student interest in cognitive psychology, we present the subject matter in a structured, logical, accessible (multi-sensory), comprehensible,

and entertaining manner. We also foster student interest and motivation to study by providing a variety of ways for students' to interact with and discuss the subject matter and by helping them see its relevance to their lives.

While it is up to students to take responsibility for their learning and education, we do our best to support the development of self-regulated learning skills. We believe our approach to teaching allows students to construct their own understanding of the subject matter and discipline specific skills and achieve the educational goals we have set for the course.

### *Philosophy of Learning*

Students learn best when they are motivated, interested and challenged. Students should attempt to relate class material to their lives and experiences. They should think critically and evaluate claims made by professors, scientists, textbooks, and the media. To succeed, students must take responsibility for their education and learn to approach academic tasks strategically. Effective students are aware of the strategies they use and the extent to which they have understood material that they have just learned, listened to, and/or read. Research on memory and cognition has shown that effective learning occurs when people:

- build new understanding by adding onto and revising pre-existing knowledge;
- distribute study over longer durations of time (instead of cramming the night before an exam);
- revisit the same material multiple times and from multiple perspectives;
- analyze new knowledge for meaning and relevance;
- link abstract concepts to concrete examples and experiences;
- attempt to apply what they have learned to new contexts and examples
- reflect on their thinking and learning and attempt to try new learning strategies such as those covered in this course.

Students should attempt to apply these and other concepts of memory and learning they will learn about in this class to their studies in order to become better students – not just in this class but other classes and “real life” as well. As a beneficial consequence of taking this course seriously, students will become more aware of their own cognitive processes as well as better thinkers and learners.

### *Rationale for Course Design*

We have designed this course so that students have numerous and varied opportunities to engage the material and express their understanding of what they have learned. Students will have first-hand experience with the phenomena discussed in the book and in class by participating in **online laboratory (CogLab) experiments**. Since you will have these experiences before you are exposed to the material in the book or in class, you will have a concrete foundation to support your developing understanding of cognitive phenomena – especially the linkages between and among theory, research design, empirical data, statistical evidence, and scientific argumentation.

Students will also have the opportunity to demonstrate what they have learned by writing answers to **take-home essay questions** of different types. The **Theory-Evidence essay questions** are designed to get you thinking about the nature of theory, evidence and argumentation in cognitive psychology and give you an opportunity to learn to write a well-structured essay that brings them together in a coherent fashion. The **Daily Life essays** will ask you to think about how the major themes in each unit relate to and help explain your daily experiences.

Five **Scientific Reasoning Activities** have been designed to help students learn to create high quality arguments for this class and to promote the development of their scientific reasoning skills. There is a particular focus on developing their ability to think about the relationship between theory and evidence. We will provide more detailed information about these activities as they come up during the term but some initial information is provided in section III of the syllabus.

We will help build on and revise pre-existing knowledge and beliefs about cognition by discussing the results of the **background knowledge questionnaire** in class. In addition, students can earn extra credit by submitting a reaction to a cognitive 'event' they attend such as UIC cognitive psychology Brown Bags, lectures, presentations or colloquia, and/or by reading an interesting paper on cognition and writing a brief report on its contents.

### Ongoing (Re)Design of Psychology 352: Cognition and Memory

Dr. Pellegrino has taught this course in the Fall 2002, Fall 2003, Spring 2004, Fall 2004, Spring 2006, Fall 2006 and Spring 2008 semesters with Jordan Lippman consistently serving as a TA. As a result of those experiences and lengthy discussions with Jordan and TAs like Rob Youmans and Sharon Obeidallah, as well as considerable, thoughtful feedback from the Fall 2003, Spring 2004, Fall 2004, Spring 2006, Fall 2006, and Spring 2008 students, we have continuously updated the course to help more students become engaged and interested in the material we cover and to do it in a way that isn't overwhelming in terms of assignments. The design of the course in which you are about to participate is the result of these ongoing efforts.

Dr. Pellegrino and Jordan have been engaged in a very systematic approach to designing this course. In fact, these efforts are part of an ongoing research project and we have presented some of our findings at national conferences. We have thought seriously about what we want students to get out of this course, the kinds of activities students should complete, how we should present the material, how we could encourage social interaction and how we should assess student achievement. We have previewed countless textbooks, online syllabi of similar courses at other institutions, and interviewed professors and TA's who have taught this course here at UIC in the past few years. Many changes were made in the Fall of 2003 and students in the course gave us detailed reactions about what they liked and disliked, issues of workload, the most meaningful assignments etc. The course plan was changed somewhat for Spring of 2004 and again we received extensive feedback from students that led to further revisions for the Fall of 2004. We received further feedback from the Fall 2004, Spring 2006, Fall 2006 and Spring 2008 students about ways to improve the course and we have incorporated many of those ideas into the current design. Thus, the current course plan is a result of successive refinements in an attempt to create the best possible outcome for everyone – ***the students, the TAs and the professor.***

In order to assess the effectiveness of our ongoing redesign efforts we would appreciate it if students would provide us with thoughtful and honest feedback in an **extended end-of-term evaluation** of the course content and design that we will make available online. This evaluation will be more extensive than the standard UIC end-of-term evaluation, which we will also ask you to complete. Since we would like the entire class to provide us with this feedback, we will be offering extra credit points to students who complete the extended end-of-term evaluation.

We also realize that students take this course for a number of different reasons. Some students are simply taking this course to fulfill a college requirement. Some students are psychology majors and others are not. Some people are interested in a specific aspect of the course, while others have a general curiosity and just want to see what it is all about. Some students want to go on to pursue graduate education in the cognitive sciences or a related field and others think this subject matter might help them in their current or future careers.

We want to find out which students think the course is beneficial and engaging and which think it is a waste of time and boring. This information will help us continue to redesign the course to make it more in line with the needs and interests of future UIC students who take it.

So please keep in mind aspects of the course you do and do not like and why you feel the way you do. Think about how we have designed this course based on the principles described above and as the term progresses think about whether we have succeeded or failed to accomplish our goals. Where have we succeeded or failed and why? What should be changed and why?

In addition to the end-of-term evaluation, we may ask students' to give us feedback about the course at various points during the semester. Such a course evaluation can be used to make changes in the course design mid-stream based on the feedback we get from students. Such an evaluation will not be mandatory and you will receive no extra credit form completing but you will benefit from completing it should we decide to ask for it.

### Professor and TA Responsibilities

- Facilitate your learning of the content by providing students with varied opportunities to learn and interact with the material, promote critical thinking, and present the material in a structured, interesting (hopefully), and comprehensible format.
- Make our expectations of you clear and then fairly and accurately assess your engagement with and understanding of the material within a reasonable time frame.
- Respond to your comments, suggestions and questions.

### Students' Responsibilities

- Know your responsibilities and assignments and complete and turn them in on time.
- Participate in online laboratory experiments.
- Observe the rules of academic honesty.
- Do the assigned readings.
- Attend and actively participate in class – **bring your iClicker unit with you.**
- Contribute to group discussion activities.
- Relate information covered in class to your life and experiences.
- Study for and respond thoughtfully to the two different types of essay questions.
- Carefully complete the Scientific Reasoning Activities and attempt to learn from the feedback
- Set-up and check your email regularly, since this is how we will communicate with you.
- Be proactive; seek out help immediately if you are having trouble.
- Provide us with honest and thoughtful feedback about the course.

### Where Students Can Get Help

If you are having difficulty in this class and feel you need assistance, you have a number of resources available to you. First, we suggest you read the syllabus, the FAQ related to the particular assignment, contact the TA who grades the assignment, or contact Dr. Pellegrino directly. Second, there are general campus resources that might be able to provide assistance: the writing center (<http://www.uic.edu/depts/engl/writing/>) located in 100 Douglas Hall, or the Center for Academic Excellence located in Suite 2900 of SSB, (<http://www.vcsa.uic.edu/MainSite/departments/ace/home/>).



## About Blackboard

Blackboard is the primary means of gaining information to all relevant material for this course and you will turn in all written assignments through the Blackboard site. Included on the Blackboard course website are downloadable versions of this Syllabus and the Course Schedule, as well as materials such as PDF files of the **PowerPoint** Slides for each week of class. Via the course Blackboard site you can also access the **Wadsworth CogLab website** as well as **UIC CogLabs** that Jordan and Dr. Pellegrino have developed to supplement the Wadsworth CogLab package. You will also access the **Scientific Reasoning Activities** via links in Blackboard, as well as some of the extra credit activities such as the **End of Term Evaluation**.

## About Lecture

Class attendance is not mandatory but is highly recommended. If you are used to completing courses by reading the textbook and showing up for major exams, this strategy is just not appropriate for this course. It is not our objective to simply present all the information in the book to you during the regular class meeting time. Rather, in class we will focus on, clarify and expand on major themes in the text and we will cover material that was not in the textbook. Additionally, we will use in-class demonstrations or videos to help illustrate these messages. However, you will need to have completed the assigned reading beforehand to understand many things we will present in class. In lecture, we will also present and discuss the results of the CogLab experiments the class has recently completed, introduce and discuss the topics you will be writing about during that section of the course. **Your questions and participation are always welcome during class. To facilitate participation and engagement with ideas and issues and to see what people are thinking about important topics, we will be using a form of technology know as Personal Response Units (PRS)**. These are small handheld devices that allow you to respond to questions presented via PowerPoint. They allow us to rapidly record everyone's choices and then display them for purposes of discussion. Each member of the class must purchase their own unit from the UIC Bookstore that they will be responsible to bring to class regularly.

**PowerPoint** slides covering the content to be discussed during each week of class will be available on the "Lecture Notes" section of the blackboard site at the start of each week. This will allow students to get the materials ahead of time, print them out, and bring them to class. Having the slides in class will facilitate listening to lecture, question asking, and note taking. **Please note – if you just read the PowerPoint slides and don't come to class you won't have much of an idea of what the slides mean and thus they won't help much!!** *One preferred strategy is for you to print out the slides ahead of time, and then to use them to take notes during class time. This helps keep your own notes organized, and prevents you from having to write as much during lecture.*

## About The Text

Your text is an important learning instrument, and we ask that all students purchase the text. Past students have said it is absolutely necessary to read the assignments before topics are discussed in class. You may find that bringing the text to class will be useful, for we will often use figures from the text in lecture. In addition, the text will serve as an invaluable reference as you attempt to construct answers to the various essay questions.

## About The Essay Questions & Studying

Items for the two different types of essay questions require a 1- to 3-page response. The Theory-Evidence essays cannot be more than two-three pages and 1000 words, and the Daily Life essays should be one to one

and one half pages long (500 words). **All material that is in sections of the book that we have assigned for a given week or section of the course will be fair game for the questions and answers.** This includes information in the text that we have assigned but may not have covered in lecture or information that was covered only briefly. So, it is important that you thoroughly read and study the assigned chapters. In addition, the various essay questions may cover material presented in class that was not in the text as well as CogLab experiments.

Our goal is for you to develop an understanding of the major themes in cognitive psychology and not to memorize a list of names and dates. However, it will be important for you to understand key concepts and theories. **The theory-evidence and daily life essay questions will be administered in a take-home format.** The questions demand comprehension, analysis, synthesis, and/or application so it is important that you take your time and think through what makes for a good answer so that you can complete it within the page limit. **To assist you in understanding what is being asked of you in terms of a written product and how we are scoring your answers, we will also be providing scoring rubrics as well as discussing these assignments and rubrics further in class.**

## ***VI. Course Specific and General University Policies:***

*To Prevent Loosing Points Needlessly Follow these Course Specific Polices*

### **Adding the Course Late**

If you add the course late you will be behind because we start the course on the first day. You will not be able to earn full points on missed activities but contact Scott immediately with your full name, UIN, and email and he will tell you what to do. The most important things to do are to read the syllabus, get a book and access to CogLab. You will be able to do some of the extra credit assignments that are available to all students to make up for some of the points that may have been lost.

### **Written Assignments**

Every written assignment must be submitted via the Blackboard website for the course. All assignments must be submitted as a WORD document before the due date. There is a link in the folder for each assignment where you can submit your documents. If you have a problem or question, you should consult the essay FAQ posted under the Syllabus/Resources section of Blackboard before contacting the TA's because if it doesn't answer your question, it will tell you what info you will need to include or bring with you when you contact them for help. When seeking help from the TA's, you should contact the TA that is in charge of grading the assignment your question is about: see Scott Hinze about the "Theory-Evidence" essays and Jordan Lippman about the "Daily Life" essays. More details about these activities are in section III of the syllabus.

**The requirements for referencing and document formatting (such as font, length, & naming) that must be followed for every writing assignment to earn full points are described in the following sections.**

### **Plagiarism and Referencing**

Your essays should be written in your own words; avoid using quotes from other sources (with or without providing a reference to that source). If you must use a quote, which you shouldn't, then provide a direct quote in italics and surrounded by quotation marks, followed by a citation (which is explained below).

Because you will not be using direct quotes from other sources and you must explain ideas in your own words, it is good practice not to look at the actual source when you are writing your essays so you are not tempted to unintentionally copy from the other source (more information about unintentional plagiarism is provided in the article posted in the Syllabus/Resources section of blackboard). Unintentional plagiarism happens when you unknowingly include direct quotes from another source without using quotes or you paraphrase without providing a citation in the text of your essay. A good way to accomplish this (and prevent plagiarism) is to use the essay writing worksheet that is provided in the Syllabus/Resources section of blackboard. Blatant plagiarism will result in a 0 for the assignment and possible disciplinary actions with the dean.

Your essays should be written so that it is clear what ideas are yours and what ideas were borrowed or based on another source. In order to make it clear which ideas are yours and which are not, you must provide citations in the text of your essay immediately after others' ideas are described or mentioned. Any specific terms, concepts, theories, and/or studies that you define in the essay or that are central to your argument should have citations. These citations will point the readers to the page of the text (or CogLab manual), day of lecture (or slide number of the notes), or to the page of an outside source where you learned the information. If

it is an outside source (i.e., it is not your textbook, CogLab, or lecture) you must also provide a complete reference (in APA style) at the end of the essay – the references at the end of the document don't count against the length limits.

The sources you can obtain information from include the textbook, lecture, PowerPoint slides, the CogLab Manual (print or online version), CogLab data, peer-reviewed journals, popular press science journals (e.g., Scientific American, Discover), or the websites of researchers associated with universities or government agencies. If it is not a primary source (i.e., the peer-reviewed journal article by the author), then it is a secondary source that is summarizing the results of the original study. If you are providing a reference to the primary source, you need to include the author's last name, the year of publication, and the page number in parentheses (and separated by commas) in the text of your essay and a complete reference at the end of the essay. However, if you are providing a citation to a secondary source, (e.g., the textbook, lecture or PowerPoint slides, CogLab manual, or a Scientific American article) you must provide the name and date of the original author (of the study or theory) as well as a reference to the secondary source. Examples of in-text citations are provided in the next section.

### In-Text Citations

You must provide a reference in the text immediately after you mention new information. Below are a number of examples of how to provide in-text citations.

- a) Theory / evidence described in the text: "Sternberg's (1997) study of problem solving (described by Goldstein, 2008, p. 274), showed that . . ."
- b) Theory / evidence described in lecture: "Sternberg (1997) conducted a study on problem solving (Pellegrino, 2-19-08 lecture)," or "In a study on problem solving described by Dr. Pellegrino (2-19-08 lecture), Sternberg (1997) had participants solve 5000 problems in 30 seconds . . ."
- c) Theory / evidence described in the CogLab manual: "Sternberg's (1997) study of problem solving described in the CogLab manual (XXXX et al., 2006, p. 274), showed that . . ."
- d) Theory / evidence described in the online CogLab manual: "Sternberg's (1997) study of problem solving described in the online CogLab manual (XXXX et al., 2006, False Memory experiment), showed that . . ."
- e) Summary of data from an experiment completed by the class: "Data from the Mental Scanning CogLab completed by our class (accessed from CogLab online on 3-25-2008) showed that . . ."
- f) If Dr. Pellegrino or one of the TA's told you about something over email or in conversation then you can cite the date of the personal communication or email, using those terms: (Pellegrino, personal communication, 2-19-2008)
- g) A general definition that doesn't have a specific author: "Memory was defined by Dr. Pellegrino (2-19-08 lecture) as . . ."

### Formatting Requirements

- 1) Use the essay formatting template posted in the Syllabus/Resources section of Blackboard and update it for each assignment based on the following requirements.
- 2) Font, spacing, margins:  
Essays must be typed in Times New Roman font, size 12, with 1.5 line spacing, & 1-inch margins.
- 3) Information to include at the top of each page of the document (in the heading):  
The following information should be written in one line, between each piece of information include a space or two then a hyphen "-" or a break "|" another space or two and then the next piece of information:  
The assignment name (and number for essays only), the semester (S09 352), your name, your UIN, your email, and the page number. For example:

**Theory-Evidence Essay 1 - S09 352 - Jordan Lippman - 555555555 - [jlippman@uic.edu](mailto:jlippman@uic.edu) - pg 1  
assignment & number - Semester & class - full name - uin – email – page number**

The formatting template provides instructions for how to add this information to the heading in WORD but if you don't use WORD you can just put this info in the top line of each page. If you don't include your email, you won't get feedback. DO NOT include the text of the essay question or instructions in your essay – they will count against your word and space limit.

- 4) How to name the document when you save it on your computer before you upload it to blackboard: Including the semester (S09) the short assignment name (for theory-evidence essays it is THE, for daily life essays it is LIFE, for extra credit assignments it is EVENT or ARTICLE, and for science-argument activities it is ACT), include the number of the assignment (for essays only) after the name (e.g. THE1, THE2, THE3, THE4), and your netid, all separated by underscores. (There should be no need to type .doc because it is added automatically by WORD)

For example:

**Semester\_short assignment name and number\_netid.doc**  
**S09\_THE1\_jlippman.doc**

- 5) Length of documents

Assignment descriptions provide you with a page number limit and a maximum number of words. You should try to make your document fit both length limits. Essays that fudge the formatting to fit more words will lose points because they will break the word count limit.

The length limits for each assignment are listed below:

Theory-Evidence essays (THE): 2-3 pages & 1000 words

Daily Life essays (LIFE): 1-1.5 pages & 500 words.

Extra credit cognitive event (EVENT): 2 pages & 850 words

Extra credit cognitive article (ARTICLE): 2 pages & 850 words

Scientific Reasoning Activities (ACT): if there is a written component, length & other requirements will be explained in the instructions for that activity.

Note: in the past students who have not named or formatted their document correctly have attempted to fix it by leaving comments in blackboard. The method we use to download the essays will delete these comments, so instead of leaving comments, send us an email or fix the essay and upload it again before the due date. Uploading the essay a second time will replace to the old essay.

## **Late Assignments and Make-ups**

To receive any credit, you must complete the online CogLab experiments, Essay Questions, Scientific Reasoning Activities, and all extra credit assignments before their deadlines; to receive PRS points you must bring your iclicker with you and use it everyday. THERE WILL BE NO EXCEPTIONS, EXCUSES, OR MAKE-UPS FOR THESE ASSIGNMENTS! Explanations of what to do if you think you did not get the points you deserved are explained in section III of the syllabus and the various FAQ documents posted in the Syllabus/Resources section of Blackboard.

## Feedback from Students

We encourage students to provide us with critical feedback about the course and we take such feedback into serious consideration. Please provide feedback on anything about this course you like or dislike and any suggestions for improvement. We will consider changing policies and/or assignments as we go.

## Where Students Can Get Help

If you are having difficulty in this class and feel you need assistance, you have a number of resources available to you. First, we suggest you read the syllabus, the FAQ related to the particular assignment, contact the TA who grades the assignment, or contact Dr. Pellegrino directly. Second, there are general campus resources that might be able to provide assistance: the writing center (<http://www.uic.edu/depts/engl/writing/>) located in 100 Douglas Hall, or the Center for Academic Excellence located in Suite 2900 of SSB, (<http://www.vcsa.uic.edu/MainSite/departments/ace/home/>).

## *University Policies*

### Plagiarism and Dishonesty

As defined by the College of Liberal Arts and Sciences, the University's definition of academic dishonesty includes but is not limited to:

- **Cheating**: Either intentionally using or attempting to use unauthorized materials, information, people, or study aids in any academic exercise or extending to or receiving any kind of unauthorized assistance on any examination or assignment to or from another person.
- **Fabrication**: Knowing or unauthorized falsification, reproduction, lack of attribution, or invention of any information or citation in any academic exercise.
- **Academic dishonesty/plagiarism**: Intentionally or knowingly representing the words or ideas of another as one's own in any academic exercise.
- **Non-original works**: Submission or attempt to submit any written work authored, in whole or part, by someone other than the student.

All allegations of student academic misconduct will be handled pursuant to the Student Disciplinary Procedures. Sanctions would include any of the following:

- **Redoing the assignment**: The student is requested to rewrite the paper or take an equivalent examination or assignment.
- **Failure on the assignment**: The faculty member may refuse to evaluate the paper, examination, or laboratory exercise and will record a grade of F for the assignment.
- **Failing the course**: The student may be dismissed from the course with a grade of F.

### Policy on Religious Holidays and Observance

The faculty of the University of Illinois at Chicago shall make every effort to avoid scheduling examinations or requiring that student projects be turned in or completed on religious holidays. Students who wish to observe their religious holidays shall notify the faculty member by the tenth day of the semester of the date when they will be absent unless the religious holiday is observed on or before the tenth day of the semester. In such cases, the student shall notify the faculty member at least five days in advance of the date when he/she will be absent. The faculty member shall make every reasonable effort to honor the request, not penalize the student for missing the class, and if an examination or project is due during the absence, give the student an exam or assignment equivalent to the one completed by those students in attendance. If the student feels aggrieved,

he/she may request remedy through the campus grievance procedure. If you have any further questions or comments please contact Haydee Caldero in the Office for Access and Equity at (312) 996-6424 or at [hcaldero@uic.edu](mailto:hcaldero@uic.edu).

### **Policy on Academic Accommodations**

In compliance with UIC policy and equal access laws, your professor is available during office hours to discuss appropriate academic accommodations that may be required for students with disabilities. Before you may request academic accommodations you must register with the Office of Disability Services by bringing documentation of your diagnosis to the office, which is located in room 1190 SSB; their phone number is 413-2183. After you register with the Office of Disability Services you will receive a "letter of documentation," which you must bring to your professor within the first three weeks of the semester so arrangements for proper academic accommodations can be made.