

**Winter 2016 Course Syllabus**  
**PSY 365: Cognition (02)**  
**Tuesday & Thursdays 10:00 am - 11:15 am, LOH 174**  
**Department of Psychology**

**Instructor:** Walter Sá, Ph.D.  
**Office:** 2210 Au Sable Hall (ASH)  
**Office Phone:** 616-331-3705  
**E-mail:** saw@gvsu.edu  
**Office Hours:** Tuesdays & Thursdays 1:15 pm to 2:15 pm (and by appointment.)

**Course Description**

This course concerns itself with the *science of mind*. The contents and processes of mind such as thinking, reasoning, perceiving, attention, memory, knowledge and language are of central interest to theorists and researchers in the areas of cognitive psychology and cognitive science. This course will provide a historical background to the modern science of mind, illustrate some pertinent research methods, and cover some important *empirical findings* and theories in the study of cognition.

**Course Objectives**

1. To provide a comprehensive background to the history, methodology, research findings, theories, and contentious issues in the study of cognition.
2. To encourage the evaluation of current issues in cognition research; to nurture critical thinking about cognition research; to familiarize students with thinking about cognition as a problem to be studied empirically.

**Textbook (Required):**

Cognitive Psychology: Applying the science of the mind. (2008), by Gregory Robinson-Reigler & Bridget Robinson Reigler, Allyn & Bacon.

**E-Reserved Readings\* (Required):**

De Neys, W. (2006). Dual Processing in Reasoning. Psychological Science, 17(5), pp.428-433.

Colom, R., et al. (2003) Working Memory and intelligence. Personality and Individual Differences, 34, pp.33-39.

Özgen, E. (2004). Language, Learning, and Color Perception. Current Directions in Psychological Science, 13(3), 95-98.

Pavani, F., Spence, C., & Driver, J. (2000). Visual capture of touch: Out-of-body experiences with rubber gloves. Psychological Science, 11, 353-359.

Pylyshyn, Z. (2003). Return of the mental image: Are there really pictures in the brain? TRENDS in Cognitive Sciences, 7(3), 113-118.

Roediger, H. L. & Karpicke, J. D. (2006). Test-Enhanced Learning: Taking Memory Tests

Improves Long-Term Retention, Psychological Science, 17(3), pp.249-255.

Roediger, H. L. & Marsh, E. J. (2005). The positive and negative consequences of multiple-choice testing, Journal of Experimental Psychology: Learning, Memory, and Cognition, 31(5), pp.1155-1159.

Satel, S. & Lilienfeld, S. O. (2013). Losing our minds in the age of brain science, (Introduction; pp. ix-xxiii). From Brainwashed: The Seductive Appeal of Mindless Neuroscience.

Shipstead, Z., Redick, T. S. & Engle, R. W. (2010). Does working memory training generalize? Psychologica Belgica, 50(3&4), 245-276.

Shimamura, A. P. (2010). Bridging psychological and biological science: The good, bad, and ugly. Perspectives on Psychological Science, 5(6), 772-775.

Stanovich, K. E. (2010a). Falsifiability: "A discourse on how to foil little green men in the head" Chapter 2 (pp. -34) from How to Think Straight About Psychology (9th Ed.)

Stanovich, K. E. (2010b). Operationism and Essentialism: "But, Doctor, What Does it Really Mean?" Chapter 3 (pp. 35-52) from How to Think Straight About Psychology (9th Ed.)

Swami, V., Voracek, M., Stiegler, S., Tran, & Furnham, A. (2014). Analytical thinking reduces belief in conspiracy theories. Cognition, 133, 572-585.

It is **important** that you keep up with the assigned readings (both textbook & E-reserved) throughout the entire duration of the course. Assigned readings will be officially announced in class.

\* Please note that additional readings may be added on to the above E-reserve listing and not all the above may be assigned. Any modifications will always be announced in class.

## Course Evaluation

Midterm Exam 1	22.5 points
Midterm Exam 2	22.5 points
Final Exam (Semi-Cumulative)	30.0 points
Reading Assignments	10.0 points
In-Class Activities / Participation	10.0 points
Journal Article Review Assignment	5.0 points

---

**Total**

**100 points\***

\*Note that since the sum of all points is 100, the terminology "points" and "percentage" are interchangeable in this scheme.

## Exams (3): 75% of final grade

There will be two midterm exams and a "semi-cumulative" final exam. Exams will consist of multiple-choice, fill-in the blank, and short answer questions. Questions will be drawn from both lectures and assigned readings. Although there will be a very large overlap between lecture material and assigned readings, lectures will present some material not found in the assigned

readings and also not cover some material found in assigned readings. A consequence of this is that a non-trivial portion of exam questions will comprise of material that is unique to either lectures alone or assigned readings alone. In other words, to do “well” on the exams you must do both the assigned readings and attend class (which means paying attention and taking good notes--not just physically being there). Midterms will test lecture and reading material covered prior to exam date (2<sup>nd</sup> midterm will test only material covered after the first midterm). The final exam will be “semi-cumulative”. It will consist of material covered after Midterm 2 and material throughout course that was designated as final exam content (for example, all of Topic 2 will be designated as final exam content).

### **On exam days . . .**

Make sure you bring to class a black lead pencil (#2 or softer) and a “good” eraser. You will be responding on a scantron form.

A point of caution: Be careful when filling these scantron forms. Bubbles should be filled in properly, and you should thoroughly erase any changed answers. No corrections will be made as a result of errors on your part.

### **On missing exams . . .**

Don’t! Rescheduling exams presents problems for the class as a whole, for me as an instructor, and for support staff in the psychology department. Numerous people may be inconvenienced by modifications to course scheduling.

If, however, you miss an exam for a good reason, be prepared to provide documentation for your justified absence (e.g., a doctor’s note) and be prepared to make up the exam ASAP. This is by no means an issue I take lightly, you **must** have a very good reason for your absence and you **must** be able to document it for me. Please promptly offer your documentation rather than waiting for me to initiate that rather “uncomfortable” conversation about documenting your justified reason.

**If you are going to be absent, get in touch with me ASAP--this is your responsibility** (do not wait for me to get in touch with you, or simply wait until you see me at the next class). If I do not hear from you within 24 hours of the exam, you have forfeited your opportunity to write the exam

### **Emergency closings and exams . . .**

In the event that the university closes on the date of a scheduled midterm exam, the affected exam will be held during our next regularly scheduled class.

## **Reading Assignments: 10% of final grade**

Reading assignments will require that you thoughtfully read some E-Reserved material(s) and answer a set of provided questions. These Assignments will be made available on blackboard and will be graded on a credit / no credit basis. Responses are to be made in your own words with no quotations taken from articles. Incomplete assignments will not be credited. Assignments in which your own wording is not used will not be credited. Assignments containing any responses that do not evidence a reflective reading of the material will not be credited. Avoid skimming the assigned readings for answers as this will almost always lead to an uncredited assignment.

Although the number of assignments is not set, each assignment is of equal weight and your final reading assignments score will be converted to a score out of 10 points [there will *likely* be 8 reading assignments, thus each being worth 1.25 points each].

## **In-Class Activities / Participation Points: 10% of final grade**

In-class activities will almost always be unannounced and will be graded on the basis of participation (completed or not completed). Many of these will amount to a quick “mini” experiment yielding class data that will serve to illustrate upcoming course concepts/material. Some others will take the form of quiz-like activities that touch upon either assigned readings that should have been completed or the material presented in class that day. **You will not be able to “make-up” any in-class activity you miss due to absence** (however missing only one in-class activity will not affect your grade). If you have a valid reason (e.g., illness) for missing one, obtain documentation for this absence (e.g., doctor’s note) and supply this to me when you’ve missed a second in-class activity (i.e., at the point when the absences will actually have an impact on your grade). With the exception of the first absence, each subsequent absence will result in a one-point loss from this portion of your grade.

## **Journal Article Review Assignment: 5% of final grade**

Details concerning the journal article review assignment will be outlined in class sometime in the next few weeks. Suffice to say for now, that the content of the research methods unit (topic 2) will be very relevant to this assignment.

## **Attendance**

While attendance is expected and most strongly urged, you will not be directly penalized for missing classes. If you must miss a non exam date class you need neither secure my consent nor supply me with a reason for the absence. But please note that missing classes will most likely have consequences on your grade in this course: i) I will be presenting material in class that is not covered in the assigned readings; ii) I often clue students in to especially important assigned reading material during lectures; iii) in-class activities are usually unannounced; iv) **I do not provide lecture notes for missed classes**—please do not ask as I can make no exceptions on this out of fairness to all students; v) you may miss important announcements and/or handouts.

## **Please do NOT email me the following (or variants of the following) questions:**

1. “I missed class today. Did I miss anything important?”
2. “Can you send me the lecture notes that I missed?”
3. “I am going to miss class because . . . will there be an in-class activity today?”

## **Answers to above questions will always have to be:**

1. YES.
2. Sorry, but NO.
3. Maybe.

You can mitigate some of the above consequences—see the **A helpful suggestion** section below.

## **On being late for classes**

It is a mistake to think that missing the first few minutes of class is harmless. All things being equal, the worst x minutes that you could possibly miss in a lecture is usually the **FIRST** x minutes. Those first few minutes of class are often where the context for all the remaining lecture material gets outlined. Your comprehension of lecture material will often be “challenged” when you miss the preceding material—even just a few minutes.

## A helpful suggestion

Get to know some of your fellow classmates. Pair up with at least one other student as a “Lecture-Notes-buddy”. That is, in the event you do miss a class, your Lecture-Notes-buddy will allow you to photocopy her/his notes for the missed class and inform you of any announcements you missed. **Do not expect the instructor to recap for you an entire missed lecture after class. Do not expect the instructor to provide you the notes for a missed class.**

## Our responsibilities:

Both the professor and student have responsibilities in the teaching / learning process.

My responsibilities as an instructor include...

- being well organized
- being courteous and helpful with students
- providing an updated and informative course
- returning graded materials promptly
- being fair and unbiased with grading

Your responsibilities as a student include...

- attending classes and being punctual--especially for exams!
- paying attention in class and taking notes
- asking questions about material you do not understand
- seeking help with material if you're having difficulty (e.g., meeting with me)
- not creating distractions for other students or the instructor (e.g., excessive talking) **Please silence your phones.**
- doing the assigned readings and studying the course material

## A note about student dissatisfaction with grades:

An unfortunate reality of any course is that not all students will obtain the final grade they desire. Some students may even fail the course. As an instructor of the course, my responsibility is to insure that evaluation procedures were fair. To a very large extent, this can be determined by how the class is performing overall. If your performance as a member of this class is substantially below the general class performance, then you cannot simply claim that the evaluation procedures were unfair. Some careful thought has to be given to what else might possibly be wrong, and how it might be changed.

To minimize any damage to your student records, it is important that you consult with me very early once difficulty arises. Don't fall asleep at the wheel--make sure you remain vigilant about your progress in the course.

When students approach me late in the term claiming that they NEED a specified grade, what can I (the instructor) do for them? the answer will be disappointing. As long as the grading procedures were fair, YOU as a student are in control and responsible for your own grade. As an instructor, I must be fair with the grading procedures, which includes sticking to the same procedures that applied to the entire class. Deviations on my part from the outlined procedures for any single student amounts to cheating those students who were evaluated under the original scheme.

## Order of topics to be covered:

The following is a list of the topics that will be covered in this course. Although no dates are indicated below, we will progress through the topics in the order listed. Exam dates have already been scheduled (see Exam and other important dates section).

**Please note that Topic #  $\neq$  Chapter #.** Throughout the course I will often refer to the topic number as indicated below.

Topic	Readings
1 <b>History &amp; Foundations of Cognitive Science</b>	Chapter 1 [Shimamura, 2010; Satel & Lelienfeld, 2013]
2 <b>Research Methods in Cognition</b>	Chapter 2 [Stanovich, 2010a & 2010b]
3 <b>Perception &amp; Consciousness</b>	pp. 73-110 (Chap. 3) & pp. 177-186 (Chap. 5) [Pavani et al., 2000]
4 <b>Attention &amp; Working Memory</b>	pp. 110-115 (Chap. 3) & Chapter 4 [Colom, et al., 2003 & Shipstead et al., 2010]
5 <b>Long-Term Memory &amp; Memory Distortions</b>	Chapters 6 & 8 (Chapter 7 is optional) [Roediger & Karpicke, 2006 & Roediger & Marsh, 2005]
6 <b>Knowledge Representation and Retrieval</b>	Chapter 9 [Pylyshyn, 2003]
7 <b>Reasoning, Judgment, Decision Making &amp; Problem Solving (Higher-Order Cognition)</b>	Chapter 12 & Chapter 11 [De Neys, 2006 & Swami et al., 2014]
if time (but unlikely) . . .	
8 <b>Language†</b>	Chapter 10 (TBA portion of) [Özgen, E., 2004]

† While it is unlikely that we will have an entire topic devoted to Language, the psychology of language will in fact often arise in our discussion of several of the covered topics and I will at times refer you to specific page sections of chapter 10 (Language) for material covered in class.

**IMPORTANT:** The above readings may **NOT** be the official assigned readings that you are responsible for. Some of the above may be scaled back and/or **additional readings may be assigned**. These modifications will always be announced in class.

## Exam and other important dates:

Last day 100% refund & "W" grade begins	January 15
Last day 75% refund	February 5
<b>Midterm 1</b>	<b>February 11</b>
Spring Break	March 6 - 13
Drop deadline with a grade of "W"	March 11
<b>Midterm 2</b>	<b>March 24</b>
<b>Journal Article Review Assignment</b>	April 5 (in class)
<b>Final Exam (semi-cumulative)</b>	<b>Wed April 27</b> <b>8:00 am</b> <i>(sorry)</i>

---

Suggestion: Keep an organized record of your grades.

Midterm 1	____/22.5 points
Midterm 2	____/22.5 points
Final Exam	____/30.0 points
Reading Assignments	____/10.0 points
In-Class Activities	____/10.0 points
Journal Article Review	____/ 5.0 points
<b>Final Grade =</b>	<b>____/100 points</b>

## Course Grade Schedule:

<b>A</b>	<b>92-100 points</b>	<b>B+</b>	<b>88-89 points</b>	<b>C+</b>	<b>78-79 points</b>	<b>D+</b>	<b>68-69 points</b>
<b>A-</b>	<b>90-91 points</b>	<b>B</b>	<b>82-87 points</b>	<b>C</b>	<b>72-77 points</b>	<b>D</b>	<b>60-67 points</b>
		<b>B-</b>	<b>80-81 points</b>	<b>C-</b>	<b>70-71 points</b>	<b>F</b>	<b>&lt; 60 points</b>

**Important:** Your continuation in this course indicates your acceptance of the above schedule and procedures. The above schedule and procedures, however, are subject to some modification in the event of extenuating circumstances.