Winter 2017 Course Syllabus
PSY 365: Cognition (01)
Tuesday & Thursdays 2:30 pm - 3:45 pm, LMH 176
Department of Psychology

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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 in general. 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 (<u>Required</u>):

<u>Cognitive Psychology: Applying the science of the mind.</u> **Third Edition**. (2012), by Gregory Robinson-Reigler & Bridget Robinson Reigeler, Allyn & Bacon.

E-Reserved Readings:

De Neys, W. (2006). Dual processing in reasoning. <u>Psychological Science</u>, <u>17(5)</u>, pp. 428-433.

Evans, J. St. B. T. & Curtis-Holmes, J. (2005). Rapid responding increases belief bias: Evidence for the dual-process theory of reasoning. <u>Thinking & Reasoning</u>, <u>11(4)</u>, pp. 382-389.

Colom, R., et al. (2003) Working memory and intelligence. <u>Personality and Individual Differences</u>, <u>34</u>, pp.33-39.

Lupyan, G. & Clark, A. (2015). Words and the world: Predictive coding and the language-perception-cognition interface. <u>Psychological Science</u>, <u>24</u>, 279-284.

Özgen, E. (2004). Language, learning, and color perception. <u>Current Directions in Psychological Science</u>, 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), 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),
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, 245-276.

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

Stanovich, K. E. (2010**a**). 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. (2010**b**). 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 throughout the entire duration of the course. Assigned readings will be officially announced in class. E-reserve readings will also be indicated via the due dates of the reading assignments (see page 3.) Additional readings may be added on to the above E-reserve listing (& not all of the above may be assigned). Any modifications will always be announced in class.

Course Evaluation

I. Exams (**70% of grade**)
    Midterm Exam 1   20 points (20%)
    Midterm Exam 2   20 points (20%)
    Final Exam (Semi-Cumulative)   30 points (30%)
II. Assignments (**15% of grade**)
    Reading Assignments   12 points (12%)
    Journal Article Review Assignment   3 points (3%)
III. Participation (**15% of grade**)
    In-Class Activities (unannounced)   15 points (15%)

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100 points*

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

Exams (3): 70% 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 (the final exam will not have fill-in the blank and may not have short answer questions—this latter point will be announced in class near the end of term.) Questions will be drawn from both lectures and assigned readings. Although there will be a very large overlap between lecture content 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 <u>unique</u> 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 <u>good</u> notes--not just physically being there)**. Midterms will test lecture and reading material covered prior to exam date (2nd 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 <u>and</u> material throughout course that was specifically *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.
<u>A point of caution</u>: Be careful when filling these scantron forms. Bubbles should be filled in properly, and you should <u>thoroughly</u> erase any changed answers. No corrections will be made as a result of errors on your part.
Emergency closings on exam dates: 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.

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 an <u>extremely</u> 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 **<u>must</u>** have a very good reason for your absence and you **<u>must</u>** 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.
<u>If you are going to be absent, get in touch with me ASAP--this is your responsibility</u> (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

Assignments: 15% of final grade

I. Reading assignments (12%)

Reading assignments will require that you **<u>thoughtfully</u>** 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 <u>own words with no quotations taken from articles</u>. Avoid skimming the assigned readings for answers as this may

result in a non-credited assignment. There will *likely* be <u>eight</u> of these assignments, each being worth 1.5 points (for a total of 12 points)—but this number of assignments is subject to change. Regardless the number of the total number of reading assignments given, each assignment will be of <u>equal weight</u> and your final reading assignments score will be converted to a score out of a total of 12 points (Note: the crediting of these assignments on blackboard will display 1.5 points under the assumption that there will be a total of eight of these assignments.)

IMPORTANT: The following will result in assignments NOT receiving credit:
1. Incomplete assignment (e.g., missing a response to a single question)
2. Responses in which your <u>own</u> wording was not used.
3. Assignments containing responses that do not *clearly* evidence a reflective reading of the material (e.g., responses being incomplete, overly brief, or completely "off-mark.")

The remaining 3 points for the Assignments portion will be allocated to a Journal Article Review Assignment (see below.)

II. Journal Article Review Assignment (3%)
Details concerning the journal article review assignment will be outlined in class sometime after the first midterm. Suffice to indicate for now that the content of the research methodology topic (topic 2) will be very relevant to the completion of this assignment.

In-Class Activities: 15% of final grade
In-class activities will almost always be <u>unannounced</u> 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 (i.e., a pop quiz) that touches upon either assigned readings that should have been completed by that date or previous lecture material. **You will not be able to "make-up" any in-class activity you miss due to an absence** (however missing only <u>one</u> 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 subsequent in-class activity (i.e., at the point when the absences will actually have an impact on this portion of 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.** Note that these activities will be brief in duration (typically 10 minutes or less) and **you must be in class during the time of their administration to be credited**. These in-class activities will usually require that you provide the last 5 digits of your G-number (not your name) to indicate your presence (**Important**: a failure to properly provide that 5 digit ID number will result in non credit for the in-class activity.)

Attendance
While attendance is expected and strongly urged, I do not record attendance. 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 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 <u>no exceptions</u> on this out of fairness to all students; v) you may miss important announcements and/or handouts. You can mitigate <u>some</u> of these—see the **A helpful suggestion** section below.

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 be:
    1. Yes! (*?*)
    2. No, sorry.
    3. Maybe.

The answers to these sorts of questions are already provided above and any emails I receive containing those questions will simply be responded with "…see page 5 of the syllabus" (and will inform me that you did not read the syllabus as was assigned in the first two classes.)

A helpful suggestion

Get to know some of your fellow classmates. Pair up with <u>at least</u> 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 copy her/his notes for the missed. **Do not expect the instructor to provide you the notes for a missed class. Do not expect the instructor to recap for you an entire missed lecture after class.**

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 often the **<u>FIRST</u>** 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. If you do arrive late to a class, please provide your fellow students the courtesy of taking the first available seat you walk past in order to minimize any student distractions.

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 <u>unbiased</u> with grading

Your responsibilities as a student include...
- attending classes and being punctual--<u>especially for exams!</u>
- 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 (e.g., excessive talking) **<u>Please silence your phones</u>**.
- any **Laptop** usage must be devoted exclusively to lecture note taking (note, however, that this has been found to be inferior to good old-fashioned paper/pen technology!)

•   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. 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 and unbiased 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.

Topics 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). **Below topics are not of equal length** (i.e., the duration of time we devote to them.) **Please also note that topic number ≠ chapter number.** Throughout the course I will often refer to the topic numbers as indicated below. I also provide below a **tentative** placement of where the midterms will fall. These midterm placements represent my best estimate based on the previous term(s) and are definitely subject to change (note that the actual midterm dates are definitively scheduled—see last page— what is tentative is the material covered for a given midterm.)

#	Topic	Assigned Readings[†]
1	**History & Foundational Issues in the Study of Mind**	**Chapter 1** **[Shimamura, 2010]** E-Reading **[Satel & Lelienfeld, 2013]** *E-Reading*
2	**Research Methodology in Cognition** (a brief sketch)	*E-Chapter* **Supplement**: Research in Cognition: Investigating Mind and Brain **[Stanovich, 2010a]** *E-Reading* **[Stanovich 2010b]** *E-Reading*
3	**Perception I**	**Chapter 2**: pp. 45-61 (stop @ Perception and Action) **[Pavani et al., 2000]** *E-Reading* *(Midterm 1 will tentatively cover above material)**
4	**Perception II & Consciousness**	**Chapter 5**: pp. 186-90 (stop @ Individual Differences) **Chapter 2**: pp. 68-81

5	**Attention & Working Memory**	**Chapter 3**: pp. 83-86; 98 (start @ Attentional Blink)-109; 116 (start @ Automatic Processing)-127. **Chapter 4**: pp. 129-151 (stop @ A Unitary View of Mem.); 159 (start @ Mind Wandering)-161 (stop @ Ironic Processes...); 164 (start @ Improving Executive Function)-170 [**Colom et al., 2003**] *E-Reading* [**Shipstead et al., 2010**] *E-Reading*
6	**Long-Term Memory I**: The "Memory Systems" view, and issues in Encoding & Retrieval	**Chapter 6** **Chapter 1** pp. 9-10 is useful to reread for our discussion of the comparison of the Bartlett & Ebbinghaus research traditions [**Roediger & Karpicke, 2006**] *E-Reading* *(Midterm 2 will tentatively cover above material)*
7	**Long-Term Memory II**: Autobiographical Memory, Memory Distortions & Semantic Memory	**Chapter 7** (Chapter 8 is optional—but useful) **Chapter 5** pp. 198-201 [**Roediger & Marsh, 2005**] *E-Reading* [**Pylyshyn, 2003** is optional] *E-Reading*
8	**Reasoning, Judgment and Decision Making (RJDM)**	**Chapter 11** **Chapter 12**: pp. 510 (start @ Algorithms)-511. [**De Neys, 2006**] *E-Reading*
9	**Language** (time permitting & subject to modification)	**Chapter 9**: pp. 349-388; **Chapter 10**: pp. 400-417 [**Lupyan & Clark, 2015**] E-Reading [**Özgen, 2004**] *E-Reading*

†**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.

Note: Above readings in brackets refer to E-reserve material (these will be explicitly assigned via the reading assignments.

Exam and other important dates:

Last day 100% refund & "W" grade begins	January 13
Last day 75% refund	February 3
Midterm 1	**February 9**
Spring Break	March 5 - 12
Drop deadline with a grade of "**W**"	March 10
Midterm 2	**March 23**
Journal Article Review Assignment	April 4 (in class)
Final Exam (semi-cumulative)	**Tue April 25 4:00 pm**

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Course Grade Schedule:

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

Final Submitted Grades

GVSU requires me to submit a letter grade on your behalf at the end of the term, not the final numerical grade. For this letter grade submission purpose, I round up from anything equal or greater than xx.45 (for example, a 81.45 final grade displayed on blackboard would be rounded up to 82 for letter grade submission purposes thus resulting in a B as opposed to 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 (as assessed by the instructor).

Welcome to the course!