

**Winter 2022 Course Syllabus**  
**PSY 365: Cognition (02)**  
**Tuesday & Thursdays 10:00 am - 11:15 am, LSH 174**  
**Department of Psychology**

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**Virtual Office Hours:** T/TH 1:00 - 2:00 pm (& 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 both research and theory in 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:**

Upon successful completion of this course students will be able to:

1. **Summarize** the important methods, research findings, and theories of cognition.
2. **Evaluate** current issues in cognition research.
3. **Compare** the strengths and weaknesses of various theories of cognition.
4. **Explain** how cognition is studied empirically.

### **Textbook (Required):**

**Cognitive Psychology: Applying the science of the mind. Fourth Edition. (2017)**, by Gregory Robinson-Reigler & Bridget Robinson Reigler, Allyn & Bacon. Available via GVSU bookstore

**NOTE:** This online textbook will be utilized solely for purposes of a textbook. None of the Revel platform features that come along with it (e.g., assignments, quizzes etc.) will be utilized for this class—all such activities will be handled within the Blackboard environment. Also, a copy of the third edition of this textbook will be fine—please speak to me about this if you obtain one.

### **eReading List:**

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

De Neys, W. (2006). Dual processing in reasoning. Psychological Science, 17(5), 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. Thinking & Reasoning, 11(4), pp. 382-389.

- 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. (2013a). Falsifiability: How to foil little green men in the head. Chapter 2 (pp. 21-36) from *How to Think Straight About Psychology* (10th Ed.)
- Stanovich, K. E. (2013b). Operationism and essentialism: "But, doctor, what does it really mean?" Chapter 3 (pp. 37-52) from *How to Think Straight About Psychology* (10th Ed.)
- Swami, V., Voracek, M., Stiegler, S., Tran, & Furnham, A. (2014). Analytical thinking reduces belief in conspiracy theories. *Cognition*, *133*, 572-585.
- Wegner, D. M., Sparrow, B. & Winerman, L. (2004) Vicarious Agency: Experiencing Control Over the Movements of Others. *Journal of Personality and Social Psychology*, *86*, pp. 838–848.

Assigned readings will be officially announced in class (and blackboard.) These readings will also be indicated via the due dates of the reading assignments (see page 4.) Additional readings may be added on to the above eReserve listing (& not all of the above may be assigned.) Any modifications will always be announced in class (and/or blackboard.)

## Course Evaluation

<b>I. Exams (70% of grade)</b>	
Midterm Exam 1	20 points (20%)
Midterm Exam 2	20 points (20%)
Final Exam (Semi-Cumulative)	30 points (30%)
<b>II. Assignments (20% of grade)</b>	
Reading Assignments	16 points (16%)
Journal Article Review Assignment	4 points (4%)
<b>III. Participation (10% of grade)</b>	10 points (10%)

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**100 points\***

\*Note that since the sum of points is 100, the terminology “points” and “percentage” become interchangeable under this 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, short answer and fill-in the blank questions. Questions will be drawn from both lectures and assigned readings. Although there will be a very large overlap between lecture presented 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 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 present.) Although the second midterm will only *directly* test material covered after the first midterm, some of that material will be built upon an understanding of midterm 1 material—most notably topic 2 content.) The **final exam** will be semi-cumulative. It will consist of material covered after midterm 2 and material throughout the 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.

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.

**Emergency closings:** 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 period.

#### On missing exams . . .

Don't!

Unless having a justified reason for missing an exam, see below, you will not be able to make up a missed exam and will score a zero for that portion of your grade. Scheduling a makeup exam presents problems for support staff in the psychology department, the instructor and potentially the entire class. Numerous people may be inconvenienced by modifications to exam scheduling for a single student (e.g., by limiting/affecting what can be discussed or presented in a post exam lecture/discussion.)

If, however, you miss an exam for an extremely 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 to be taken lightly, you **must** have a justified reason for an exam absence and you **must** be able to document it sufficiently. Please promptly offer your documentation to me rather than waiting for me to initiate that rather “uncomfortable” conversation.

**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 a make-up exam.

**Make-Up Exams:** Any rescheduled make-up exam will most likely consist of an alternative form to the exam given the class on the original scheduled date (e.g., it will most likely consist entirely of short answer questions and may include defining terminology and fill in the blank items.)

### **Assignments: 20% of final grade:**

**Reading assignments (16%)** will require that you thoughtfully read some **eReserve** material(s) and answer a set of provided questions. These assignments will be made available on blackboard and are also to be submitted on blackboard (do not email these to me.) Responses must be made in your own words with no quotations taken from articles. Avoid skimming the assigned readings for “the answers” as this strategy may result in a non-credited assignment due to the superficial responses that usually result from such a strategy. Avoid internet/google searches as this strategy will most likely result in responses that earn you a score of zero. **You are being graded here for your thoughtful engagement with the actual assigned reading(s), and responses that fail to evidence such engagement will result in zero points.** There will *likely* be eight of these assignments, thus each being worth 2 points—but this number is subject to change. Regardless the total number of reading assignments given, they will be equally weighed, and your final reading assignment score will be converted to a score out of 16 points.

### **The following will result in an assignment NOT receiving full credit:**

1. **Failure to follow assignment instructions.** Make sure to read the instructions on each assignment. A standard detail across these assignments will be that you must submit them into Blackboard in **MS Word format (.doc, .docx extensions)**.
2. **Late submissions.** Assignments that are less than 24 hours late will receive an automatic 50% deduction (likely 1 point). Assignments more than 24 hours late will receive a zero.
3. **Incomplete assignments.** Missing a single response to a question will result in an automatic 50% deduction (likely 1 point). Missing more than one response will result in a score of zero.
4. **Insufficient effort.** Responses that do not clearly evidence a reflective reading of the assigned material (e.g., superficial responses, or being too skimpy on the required details) will result in a score of zero points. Your assignment does not need to present the “correct” response to each question for full credit, but **what it does need to do is provide clear evidence that you thoughtfully engaged the assigned material and generated “appropriate” responses** to the provided set of questions.

A related point: These assignments require that **all of your responses are made using your own wording**—e.g., do not make use of any quotations from the assigned reading(s). You will not be using citations or incorporating a reference section into these assignments. Do not incorporate the work of anyone else

(including fellow students) into your responses. Doing so will be considered **plagiarism** (as described in the catalog and in the Student Code.) Assignments incorporating plagiarized material will at minimum receive an automatic grade of zero and may even result in a failing grade for the course. See the GVSU policy on this matter of academic honesty:

<https://www.gvsu.edu/catalog/navigation/academic-policies-and-regulations.htm#anchor-28>

### **Journal Article Review (JAR) Assignment. (4%)**

Details concerning the JAR assignment will be outlined in class shortly after the first midterm exam. Suffice to say for now that the content of the research methods unit (topic 2) will be very relevant to this assignment.

### **Participation: 10% of final grade**

This portion of the grade will take on several possible forms. It will predominately consist of **in-class activities** which will almost always be unannounced and will be graded simply on the basis of participation (attended vs. not attended). Some of these in-class activities will amount to quick “mini” experiments generating class data that will serve to illustrate upcoming course concepts/material. Some other in-class activities may take the form of pop quizzes. Brief homework assignments due by the next class in which they are made available may also be utilized here. If you have a valid reason (e.g., illness) for missing one of these activities, obtain documentation for this absence (e.g., doctor’s note) and supply this to me. Note that the in-class activities themselves will be brief in duration (typically no more than 10 minutes) and **you must be in class during the time of their administration to be credited. There will be no make-up opportunities for these activities.**

**Scoring Details:** You will not receive any deductions for a missed activity if you have a valid reason for missing it. The first two “unexcused” absences will not impact your score either. A third unexcused absence will result in a one-point deduction. The fourth and all subsequent absences will each result in a 2-point deduction. **You will not be able to make-up any in-class activity you miss due to absence.**

### **Course Grade Schedule:**

<b>A</b>	<b>93-100%</b>	<b>B+</b>	<b>88-89%</b>	<b>C+</b>	<b>78-79%</b>	<b>D+</b>	<b>68-69%</b>
<b>A-</b>	<b>90-92%</b>	<b>B</b>	<b>82-87%</b>	<b>C</b>	<b>72-77 %</b>	<b>D</b>	<b>60-67%</b>
		<b>B-</b>	<b>80-81%</b>	<b>C-</b>	<b>70-71%</b>	<b>F</b>	<b>&lt; 60&amp;</b>

For purposes of letter grade submission, numerical scores are rounded up from the **second decimal place value** to the nearest whole number (i.e., xx.45 and greater). For example, 81.45, (a **B-**) would be rounded up to an 82 (a straight **B**.) An 81.44, however would remain a B- (the grade threshold does need to be placed somewhere.)

## Attendance

While attendance is expected (and most strongly urged), attendance will not be directly assessed. 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 lecture/discussion; iii) an unannounced in-class activity may have been conducted (see above Participation section above on this); and 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.** While you can certainly mitigate some of these consequences (see the A helpful suggestion section below), **there simply is no substitute for physically attending classes, and your final grade will most certainly reflect your level of attendance in this class.**

**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. No, sorry. See the A helpful suggestion section below.
3. Maybe.

## 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 copy her/his notes for the missed 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 **FIRST** x minutes. Those first few minutes of class is when the context for all the remaining lecture material often gets outlined. Your comprehension of lecture material will often be “challenged” when you miss the preceding material.

## 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 (e.g., neither discriminating or privileging (a) student(s) over other students)

Your responsibilities as a student include...

- **attending classes** and being punctual--especially for exams!
- paying attention, taking notes, and asking questions about material you do not understand
- seeking help with material if you're having difficulty (e.g., meeting with me)
- doing the assigned readings and studying the course material
- being courteous to your fellow students (& instructor) by not creating distractions during class (e.g., **silence your phones** and refrain from "chatting" with other students during presentations.)

## Lap-top Computers:

- If you must use a lap-top computer in class, please insure that you are utilizing it for the sole purpose of taking notes (don't be watching videos, playing games etc).

## 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. 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** (e.g., discuss this with me during an office hour.) 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. It is ultimately YOU as a student that is 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). Topics are not of equal length (i.e., the duration of time we devote to them.) **Please note that Topic # ≠ Chapter #.** Throughout the course I will often refer to the topic number as indicated below.

Topic #	Topic Title	Assigned Readings† [eReadings are indicated in square brackets]
1	History & Foundations	Chapter 1 [Shimamura, 2010; Satel & Lelienfeld, 2013]
2	Common Methods Used to Study Cognition	eChapter Supplement on blackboard: <a href="#">Research in Cognition: Investigating Mind and Brain</a> [Stanovich, 2013a; Stanovich 2013b]
3	Perception & Consciousness	Chapter 2: 2.0 - 2.3.2 [Pavani et al., 2000] Chapter 5: all of 5.2 Chapter 2: all of 2.4 [Wegner et al., 2004]
4	Attention & Working Memory	Chapter 3 Chapter 4 [Colom et al., 2003]
5	Memory Processes & Knowledge Representation	Chapter 6 Chapter 7 [Roediger & Karpicke, 2006] Chapter 8: 8.0 - 8.3.1
6	Reasoning, Judgment & Decision Making	Chapter 11 [De Neys, 2006; Swami et al., 2014]

**†IMPORTANT:** The above readings should **not** be viewed as the official assigned readings that you are responsible for and is presented here only as a useful guide. **Additional readings may be added and some of the above may be scaled back or dropped.** Any modifications will always be announced.



## Important dates:

Last day 100% refund	Jan 14 (5 pm)
Last day 75% refund	Feb 4 (5 pm)
<b>Midterm 1 Exam</b>	<b>Feb 10</b>
No classes due to Spring Break	March 8 & 10
Drop deadline with a grade of "W"	March 11 (5pm)
<b>Midterm 2 Exam</b>	<b>March 24</b>
JAR due date (hard-copy in class)	March 31
<b>Final Exam</b>	<b>Thursday April 28</b> <b>10:00 am - 11:50 am</b>

### ***Important:***

**Your continuation in this course indicates your acceptance of all the above scheduling and procedural details along with the acceptance that some modifications may have to be made in the event of extenuating circumstances.**

This course is subject to the GVSU policies listed at:

<http://www.gvsu.edu/coursepolicies/>

## Reading Assignment 1

**Due:** Wed Jan 19, 11 pm (via Blackboard submission)

**Instructions:** Please see the Blackboard version of this assignment for instructions (under the **Assignments** link).

**FYI:**

**Reductionism:** An approach in which one attempts to reduce one level of explanation to a more basic or fundamental level of explanation (not a “simpler” level).

**Localization:** The strategy of specifying the specialized region(s) of the brain that specifically underly a given mental (or behavioral) process.

**Dualism** = Mentalist view (as used in assigned readings)

**Materialism** = Monist view (as used in assigned readings), or also called Physicalism

**eReading 1:**

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

1. What is **cognitive neuroscience**? (2 - 3 sentences)
2. What was meant by Shimamura’s use of **naive reductionism**? (2 - 3 sentences)
3. What does Shimamura mean by a **mentalist** view (note that we will use the term **dualist** view (**dualism**) in this course to refer to this concept. (2 - 3 sentences)
4. What is meant by **materialism**? (2 - 3 sentences)

**eReading 2:**

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.

5. What is meant in reference to “levels of explanation” and how do the authors’ use of the term “**neurocentrism**” relate to this idea? (~4 sentences)
6. Would Shimamura (your reading 1 author) consider Satel and Lilienfeld (your reading 2 authors) as having a **dualist (mentalist)** view or a **materialist (monist)** view on the basis of what they wrote in the assigned chapter (note Satel and Lilienfeld use the term **monist** view as opposed to **materialist** view in referring to the very same concept)? Provide at least one reason for your response here. (~paragraph)

**Optional reading:** *(this does not have to be read to complete the assignment, but it does provide further context and elaboration for those interested in reading further about these issues):*

Miller G. A. (2010). Mistreating psychology in the decades of the brain. Perspectives on Psychological Science, 5(6), 716-743.