Introductory Psychology (PSY 101), Fall 2015
Syllabus and Lab Manual

Section 2, 10-10:50 AM, Monday, Wednesday, Friday, 148 Honors College
Section 1, Noon-12:50 PM, Monday, Wednesday, Friday, 148 Honors College
Honors, Section 4, 11-11:50 AM, Monday, Wednesday, Friday, 148 Honors College

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Office Hours: Mondays from 2-3 PM & Fridays from 1-2 PM; and by appointment. Students with appointments have priority over walk-ins.
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Course Description:
Three themes capture our quest into all things psychological. Despite the breadth and diversity of the field, ranging from the anatomy of the eye, to forms of psychopathology, to psychology’s insights on user-friendly design, all of Psychology embraces the scientific study of human behavior (Theme 1). The scientific approach offers the highest standard of evidence, which affords a powerful approach to determine the validity of commonly made assertions (e.g., “Is watching TV violence really harmless?”). With scientific scrutiny, you can critically evaluate advertising claims, propaganda, and other persuasive appeals. For example, are there really different “learning styles” (the idea that individuals differ in what mode [words vs. pictures vs. speech] of instruction is more effective, so instruction should be tailored accordingly)? Despite common beliefs about “visual learners” and “auditory learners”, hot-of-the-press research found that “there is no adequate evidence base to justify incorporating learning styles assessments into general educational practice.” What type of valuable changes should be made in our education? The “read-recite-review strategy” is a scientifically-proven technique for learning from a textbook that is more effective and efficient than hand-written notes!

The study of psychology reveals how even the simplest human behavior is influenced by a myriad of forces (Theme 2). This insight about the complexity of human behavior fosters avoidance of simplistic, naïve explanations for actions (like, there are two kinds of people in the world—the weak and the strong; the good and the evil). Nothing about human behavior is this simple. Consider the affliction, depression, which is one of the most common, and debilitating psychiatric conditions. With the popularity of antidepressant medications (e.g., Prozac, Zoloft) and the accompanying TV advertisements sponsored by pharmaceutical companies promising a cure, one might conclude that depression is due to a chemical imbalance in the brain. The premise: Fix the imbalance, alleviate the condition. Such a premise is simplistic and wanting. For one, this naïve premise fails to recognize the role of negative life events as risk factors for depression. Second, if a cure was so simple, given the widespread use of antidepressant medications, depression should be a thing of the past. By selectively publishing only the efficacious results of antidepressant trials, the medical community and the public have been misled.

Finally, Psychology has a practical impact on everyday life (Theme 3) by scientifically answering questions like: should I take Ginkgo Biloba to prepare for my next exam, are there elevated risks when driving while talking on the phone, how does the mosquito ringtone evade detection by my professor, and can stress increase my susceptibility to colds? Join me as we scientifically probe the underpinnings of human behavior.

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Course homepage on Blackboard (mybb.gvsu.edu) contains:
1. Documents: Syllabus, lecture notes, readings, study guides, worksheets, and more.
2. Assignments:
   a. Weekly laboratory assignments.
   b. Low-stakes quiz, when opportunity is announced at end of semester.
3. Announcements: Important updates and reminders.

Weekly laboratory participation via APA Online Psychology Lab (OPL): http://opl.apa.org/

Lab ID: 8430


Required reading: Available electronically via “Course Documents” in Blackboard.

Optional readings: Unlike the required readings, these supplemental readings are really optional, and have only been provided should you seek additional information about a select topic.

Course Grade Formula:
Course grades will be based on scores from the following, weighted activities:
Examination #1 20%
Examination #2 20%
Examination #3 20%
Examination #4 20%
Weekly Laboratory Participation 20%
Learning about Psychological Research -12 to +12 percentage points added to an exam
General Education Assessment (Low-stakes Quiz) Up to +8 percentage points added to an exam

Letter Grades will be calculated according to the following scale:
A  93-100%
A- 90-92%
B+ 87-89%
B  83-86%
B- 80-82%
C+ 77-79%
C   73-76%
C- 70-72%
D+ 67-69%
D  60-66%
F Below

Course Attendance:
Although role is not taken, you are expected to attend class. Students who do well in the class attend regularly. By attending class, you benefit by hearing unique content presented exclusively in lecture.
**Forms of Evaluation I-IV:**

**I. Exams:**

To formally assess your understanding of course material, there will be four exams. Exam questions will be based on the: 1) assigned readings (textbook; articles), 2) lectures, and 3) laboratory assignments. Exams questions are clustered by these areas of responsibility. See *Weekly Schedule* for exam dates.

*Make-up exams* will be given for the following circumstances: Official university activities (e.g., participating in sporting events), illnesses, and major life events (e.g., romantic breakup). Please email the professor as soon as possible to explain the situation, and request permission for an alternate exam date.

**II. Weekly Laboratory Participation via Online Psychology Lab (OPL):** [http://opl.apa.org/], Class ID: 8430

The goal of this laboratory component is to foster your understanding of the scientific process in Psychology. Outside of class time, you will participate in classic and contemporary experiments in Psychology via the web. You may complete the weekly experiments by using the GVSU computer labs (recommended), or your own computer. Working on a GVSU computer, open the “Psychology Folder” on the desktop, then open the “Online Psychology Lab.” If using your own computer, you will need to 1) download the required, complimentary software available at host site, and 2) allow pop-ups from the host site. A few labs require headphones, so please plan accordingly.

For each lab, you are expected to understand: the theoretical motivation; methods and procedures including the independent and dependent variables; predicted results (i.e., the experimental hypothesis); and potential limitations. The answers to most of these questions can be found at the host site by choosing one of two options (“No, but tell me more about this experiment” or “Read about studies”). Finally, you are expected to understand how the weekly labs are related to class material.

To receive full credit, submit proof of completion to Blackboard by midnight on the due date posted in the Weekly Schedule. You are encouraged to submit proof of completion up to two weeks early for maximum flexibility. **LATE** labs will receive ½ credit. **NO** email submissions will be accepted. Keep a copy of the assignment for your personal records.

Take the shortcut when submitting proof of completion. Type the following directly onto the ‘Assignment Submission’ in Blackboard: **Date of Completion, UserId, Your Data.**

1. **Date of Completion**
2. **UserId** (e.g., 47981), furnished with a big red check mark upon completion of each experiment. Careful, this proof of completion pops-up only once from the host site. Copy # immediately.
3. **Your Data.** Some labs automatically provide a summary of your individualized performance upon completion of the experiment. For example, the Monty Hall Lab gives feedback about your “wins” and “losses” after every trial (at the bottom of computer screen). When your individualized results are not provided, use your UserID to look up your results in the **Data** at the
OPL site. See the instructions ‘To Retrieve Data’ elsewhere in the syllabus. Never report ‘Trial-by-trial data.’

NOTE: Participation in all assigned labs is expected. Thus, failure to complete an assigned lab results in a corresponding grade deduction (as shown in the following Laboratory Participation Grade schedule).

**Laboratory Participation Grade:** will be awarded, according to the following schedule:

<table>
<thead>
<tr>
<th>Number of Labs</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>15 (of 15)</td>
<td>100%</td>
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<tr>
<td>14</td>
<td>93%</td>
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<td>13</td>
<td>87%</td>
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<td>12</td>
<td>80%</td>
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<td>11</td>
<td>73%</td>
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<td>10</td>
<td>67%</td>
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<tr>
<td>9</td>
<td>60%</td>
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<td>8 or fewer</td>
<td>50%</td>
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**Instructions for getting started with Online Psychology Lab (http://opl.apa.org/):**

1. Working from a GVSU computer lab, look for and open the ‘Application Folder’ on the desktop.
2. Next, open the ‘Psychology Folder’.
3. Launch the Online Psychology Lab (http://opl.apa.org/). If working from your own computer, be sure to download Adobe Flash plugin (available at host site) and permit pop-ups from host site before launching a lab.
4. Select ‘Students Begin Here’ and then select assigned experiment.
5. Enter class ID: **8430**
6. Enter requested demographic information (e.g., age, handedness) to proceed with experiment.
7. Upon completion of the experiment, write down the UserId (e.g., 47981) furnished with a big red check mark upon completion of each experiment.

**To retrieve data, select the ‘Data’ tab on the homepage of the Online Psychology Lab (http://opl.apa.org/):**

8. Select ‘data format’ by scrolling down to ‘Microsoft Excel’.
9. Select the name of the experiment by scrolling through options.
10. Select our class ‘**Grand Valley State University- 101 PSY Fall 2015 (8430)**’ from the list.
11. Select ‘Download Data’ option. An Excel data file will open in a separate tab.

**III. Learning about Psychological Research**

Students are required to participate in activities designed to acquaint them with the nature and variety of research in psychology. Students must participate in four enrichment activities.

Two kinds of enrichment activities are available. *Option 1* involves participating in research studies, while *Option 2* involves reading and writing about papers that report research in scholarly journals.

Completion of all 4 enrichment activity credits results in 12 percentage points added to your lowest exam score. However, failure to earn these credits results in a deduction of 3 percentage points from your highest exam score for every one enrichment activity credit not earned.

<table>
<thead>
<tr>
<th>Earned enrichment activity credits</th>
<th>Percentage points applied to an exam score</th>
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<tbody>
<tr>
<td>0</td>
<td>-12</td>
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<tr>
<td>1</td>
<td>-9</td>
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<td>2</td>
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**OPTION 1: PARTICIPATION IN PSYCHOLOGICAL RESEARCH**

**Objective**

The objective of this assignment is for you to gain direct experience with psychology research studies and what it is like to participate in them. In class, we shall discuss the social psychology of psychology research and how experimental designs take into account the expectations and beliefs of the participants. By participating in studies yourself, you can gain an understanding of the strengths and limits of psychological research. Psychology Department faculty and their research assistants perform the studies, all of which have been reviewed and approved by the university’s Institutional Review Board.

**Online Registration**

To participate in studies, you must register on the *Study Scheduling System*, accessible from the Psychology Department website (http://www.gvsu.edu/psychology/). The vendor maintains a strict policy protecting privacy and confidentiality. (This policy is available for review in the Psychology Office.) Navigating the Study Scheduling System is straightforward, and if you need guidance, detailed instructions are available on the Psychology Department website.

**Prescreening Survey**

An on-line prescreening questionnaire is available during the first two weeks of the semester. Completing this survey counts as one Enrichment Activity. It will appear the first time that you log into the *Study Scheduling System*, and you can access it from your My Profile page. If you opt to complete
the survey, plan to complete it in a single, one-hour sitting. Several of the studies taking place later in the semester determine eligibility according to the responses on the Pre-Screening Survey, so completing it may increase the number of studies you will be eligible to choose. (You may receive invitations based on the Pre-Screening responses.) The last date to participate in the prescreening survey is **Sunday, September 13th.**

**Participating in Studies**

Register for studies on the Study Scheduling System. Before you sign up to participate in a study, review any listed restrictions (for example, “left-handed people only”). If you sign up for a study and you do not meet the posted eligibility requirements, you will not receive credit for the study.

Arrive before the scheduled time, as studies start punctually. You will be given a description of what participating in the study will involve, and you will be asked for your consent before the study begins. If you then choose not to participate, you may leave without penalty. You can check to see that you have received credit by selecting My Schedule/Credits, where credits are typically posted within a week after you participate in a study.

If you sign up for a study but cannot attend, please cancel your session on-line.

**Under 18?**

Special rules apply to students who are under 18. If you are under 18, please use Option 2, or see the Laboratory Secretary, Nicole O’Leary, for information about permission requirements before participating in studies.

**Need Help?**

If you need assistance registering for studies, please contact Nicole O’Leary, the Psychology Laboratory Secretary, who can be reached in the Psychology Department Office (2224 Au Sable Hall, 616.331.2195) or by sending an email to psychlab@gvsu.edu.

**Option 1 Deadline**

The last day to participate in studies is **Tuesday, December 8th.**

**Option 2: Papers on Research in Scholarly Journals**

A second Enrichment Activity option is to read a selected journal article and then write a brief report on the article.

**Summary of the Assignment**

Pick a current, empirical article from a psychological journal listed below. Read the abstract, introduction, and conclusions of the article and skim the remainder of it to understand the gist. You are not expected to understand the details of the article; your task is to understand the article's general thrust, content, and conclusions. Write a brief summary (as detailed below) to document your reading. **Be sure to use your own words. Do not copy or paraphrase the abstract or the paper.**

**Objective**
This option, like the first, is intended to familiarize you with the nature and variety of psychological research. The objective to broaden your understanding of psychological research and how it is conducted.

**Selecting an Article**

Choose a current article published in 2015 that reports an empirical study (i.e. one that is based on the collection of data). The large majority of the papers published in the journals listed below are suitable for this assignment, but a few are not. In particular, reviews, meta-analyses, and other comparisons of studies from separate researchers are not appropriate for this assignment. The article you read should have sections labeled “Methods” and “Results.” Note that there are other journals, not acceptable for this assignment, which have misleadingly similar names. Make sure the title of the journal matches exactly one on this list:

- Behavioral Neuroscience
- Developmental Psychology
- Experimental and Clinical Psychopharmacology
- Health Psychology
- Journal of Abnormal Psychology
- Journal of Applied Psychology
- Journal of Comparative Psychology
- Journal of Consulting and Clinical Psychology
- Journal of Counseling Psychology
- Journal of Educational Psychology
- Journal of Experimental Psychology: General
- Journal of Experimental Psychology: Animal Behavior Processes
- Journal of Experimental Psychology: Applied
- Journal of Experimental Psychology: Human Perception and Performance
- Journal of Experimental Psychology: Learning, Memory, and Cognition
- Journal of Personality and Social Psychology
- Neuropsychology
- Psychological Science
- Psychology and Aging

**Finding the Journals**

The journals are available electronically through databases you can access through the GVSU Library website. Base your paper on the “full text” version of the journal article. You can watch a video titled “Finding Journals by Title” by going to [http://libguides.gvsu.edu/psych](http://libguides.gvsu.edu/psych). Access the journals only through the GVSU Library, not other sources or websites, as such materials may be incomplete or from the wrong journal.

**Documenting Your Reading**

Write a brief, double-spaced paper summarizing the article. The body of your essay should contain three sections, each between 100-300 words. Start each of the three sections with a heading, copying the exact words for each heading described below. No separate introduction or conclusion is required, simply answer the three questions. Under each heading write a well-organized paragraph that specifically addresses the question posed in the heading:
1. What question or questions does the article address?

2. Why are the question(s) that the article addresses important ones to consider?

2. What answers does the article provide?

The Paper Must Be Your Own Work and Written in Your Own Words
At the core of Grand Valley State University’s policy on plagiarism (described in the catalog and in the Student Code) is the principle that “[a]ny ideas or material taken from another source… must be fully acknowledged.” This means that your paper must be written strictly in your own words, and it must acknowledge any ideas that you take from another source. Try to avoid quoting from the article, but if you must quote to make a point, take care that the phrases quoted are in quotation marks. All quoted phrases must be in quotation marks, even if the phrases are only two or three words long. Words or ideas borrowed from a source other than the target article should be acknowledged and completely referenced. If you submit a paper that violates this policy, you may receive a failing grade for the course.

Required Identifying Information
At the top left-hand corner of the first page of your summary, on separate lines, put your name, your student number (G-number), your professor’s name, and the date. Immediately below this, provide a full reference to the article, with the information in the following order: Names of all authors (last name, comma, initials), the year of publication (in parentheses), the exact title of the article, the full name of the journal, the volume number, and the page numbers. Here is a sample of a reference with the information in the proper order:


If the article you select has not yet appeared in print, instead of page and volume numbers, include the words “Advanced online publication. doi:” and then give the doi number. The doi number is typically found in the upper right hand corner of the first page of the full-text paper. This reference information must be complete and accurate for you to receive credit for the paper.

Copy of First Page of Journal Article
To the back of your summary, staple a photocopy or printout of the first page of the full-text version of the article that you read. Make sure that the photocopy includes the exact name of the journal, the title of the paper, the volume number, the page numbers, and the abstract and first paragraph of the article. If you copy from the printed journal, all of the required information will usually be on the first page of the article, but if you download the “full text” version of the article from a library database, you may have to print several pages to make sure all the required information is present. If you select an article that has not yet been published in print version, volume and page numbers will typically not be available. In such cases, make sure the photocopy or printout you submit includes the doi number of the article, which is usually in the upper right hand corner of the first page of the full-text article.

Credit/No Credit Grading of Papers
The papers will be graded on a Credit/No Credit basis. No partial credit will be given. Most papers that receive a failing grade are ones where the writer fails to follow the instructions. Double-check your paper before you submit it, to make sure it conforms exactly to all the rules described above.

**Submitting Papers for Grading & Deadline**

*Option 2* papers can be turned in anytime during the semester until the last day of class (Friday, 12/11).

**IV. General Education Assessment (Low-stakes Quiz):**

During the last week of class, you will have the opportunity to earn extra credit (by taking a short quiz administered via Blackboard), while providing the university with assessment data (a snapshot of student learning in general education courses). More details about the extra credit opportunity will be announced later in the semester. Information about GVSU’s self-assessment plans can be found here: [http://www.gvsu.edu/assessment/](http://www.gvsu.edu/assessment/)

**Weekly Schedule:**

**Week 1**  
**Introduction:** What constitutes science?  
**Research Methods:** Experimental tools—Correlations and Experiments  
*Testing washing machines relies on same scientific methods as does testing the mind*

pp. 1-27, Chapter 1, Foundations for the Study of Psychology  
pp. 29-55, Chapter 2, Methods of Psychology


**Qs for exam:** Offer science-based advice on how to efficiently and effectively learn from a textbook according to McDaniel and colleagues’ (2009) research. Explain the 3R method. What were the control conditions? Which study condition took the most time? Which study condition produced the best learning on immediate testing, delayed testing, and when answering inference-based test questions. What makes the 3R technique mnemonically so effective? How can you use, in a 3R-way, the study guides provided for the textbook?

**Lab (Friday, 9/4):** In preparation for the weekly laboratory assignments, please familiarize yourself with the APA Online Psychology website at: [http://opl.apa.org/](http://opl.apa.org/)  See ‘Instructions for getting started with Online Psychology Lab (OPL)’

**Labor Day Recess, September 6-8**

**Week 2**  
**Research Methods:** Does TV violence cause violence among viewers?  
**Classical Conditioning:** The role of timing and contingencies.  
**Worksheet:** Classical conditioning in daily life
pp. 101-126 and pp. 136-143, Chapter 4, Basic Processes of Learning


Lab #1: Monty Hall (due Friday, 9/11)
(Select “quit” to complete lab after at least 40 total trials, comprised of 20 “Stay” and 20 “Switch”)

Your Data:
When you stayed with your first door choice, what percentage of times did you win the grand prize? When you switched to a new door, what percentage of times did you win the grand prize?

The Monty Hall Lab was inspired by a television game show called, Let’s Make a Deal, hosted by Monty Hall, first airing in 1963. In the television game show, contestants won BIG prizes if they correctly picked one (of three) doors, behind which the grand prize (e.g., a car) was hidden. Two of the doors, when opened, revealed booby prizes (e.g., a month’s worth of Comet cleanser; a scrawny goat). In the show, after each contestant made her/his initial door choice, Monty opened one of two non-revealed doors to reveal a booby-prize. Then, Monty typically offered each contestant the option to STAY with his/her first door-choice, or to CHANGE by picking the other (non-revealed) door.

Qs for exam: If you were a contestant on the show, would you STAY with your first door choice or CHANGE to another door, if given the opportunity? Are your odds at winning the grand prize better if you STAY or CHANGE? In the lab, were your door choices influenced by probabilities? If not, what governed your door selection? The answers to these questions are television history. Check out the puzzler. Amusement guaranteed! (A fun simulation of the lab is available here: http://www.nytimes.com/2008/04/08/science/08monty.html?_r=1)

Week 3 Classical Conditioning: How do we learn to like, or dislike, something?
Operant Conditioning: The power of consequences!
Worksheet: Operant conditioning in daily life

Readings: pp. 195-205, Chapter 6, Mechanisms of Motivation and Emotion
pp. 57-85, Chapter 3, Genetic and Evolutionary Foundations of Behavior

**Stroop (due Friday, 9/18) via alternate site:** [https://faculty.washington.edu/chudler/java/ready.html](https://faculty.washington.edu/chudler/java/ready.html)

**Your Data:**
Your reaction time for Word Set 1 _____
Your reaction time for Word Set 2 _____
What is the difference between your Word Set 2 time and Word Set 1 time? (To calculate the difference: Word 2 time - Word 1 time = Difference Time) _____
Speculate on which condition you were more accurate in and why this occurred __________________

**Qs for exam:** Can you stop from reading billboards plastered along highways? To fully answer this question, tell me what behavior was automatic (i.e., uncontrollable) in the Stroop experiment? What behavior was controlled (i.e., stoppable) in the experiment? Under what condition was your performance facilitated (made faster)? When did your performance suffer from interference effects (made slower and more error-prone)? Can you clarify the role of practice in the acquisition of automatic behaviors?

**Week 4 Operant Conditioning:** *Can we reduce human suffering through conditioning?*
In-class movie (time-permitting): *The Dog Nose Knows,* or *The Behavioral Treatment of Autistic Children*

**Exam 1, Friday, 9/25**

(EXAM 2 MATERIAL BEGINS HERE)


**Lab #3: Lexical Decision Making (due Friday, 9/25)**

**Your Data:**
Related Accuracy: Words= ___%; Nonwords= ___%
Related Reaction Time: Words= ___ sec; Nonwords= ___ sec
Unrelated Accuracy: Words= ___%; Nonwords= ___%
Unrelated Reaction Time: Words= ___ sec; Nonwords= ___ sec

**Qs for exam:** How is our mental dictionary similar to, and different from, a physical dictionary? You have a vocabulary in excess of 60,000 words stored in a mental dictionary. However, within fractions of a second, you can easily decide if “rimmelnode” is word you know. How might you do that? You may be fooled when asked, “how many animals of each kind did Moses take on the ark?” However, you are not fooled if “Moses” is replaced with “Nixon.” Why not? Dictionaries alphabetically organize entries. Based on the experimental findings from the Lexical Decision Making Lab, how is information organized in our mental dictionary? What is the role of “context” (i.e., priming) in the lab? What
appears to automatically spread in our minds? By the way, why did the experiment include “non-words” (fake words)?

How is the Lexical Decision Making Lab related to Siegel’s (2005) article on drug addiction? Be sure to provide a conceptual link between the contingencies in the Lexical Decision Making Lab and the contingencies in addiction. Include the role of external and internal cues, and the concept of “spreading activation” in your answer. How does tolerance develop? Explain the power of context (situational-specificity) in the maintenance of addiction? What are the goals of cue-exposure therapies, and what makes addiction so difficult to treat? Tell me, do you think addiction boils down to the lack of self control?

Week 5  Sensation and Perception: *Psychology applied to engineering, for better living.*

Readings:  pp. 281-319, Chapter 8, The Psychology of Vision
 pp. 245-279, Chapter 7, Smell, Taste, Pain, Hearing and Psychophysics

**Lab #4: Ponzo Illusion (due Friday, 10/2)**

**Your Data:**
Background present: Adjusted lower line to an average of ___% longer than the top line; judging the top line to be ___ [longer/shorter] than it actually was.
Background not present: Adjusted lower line to an average of ___% longer than the top line; judging the top line to be ___ [longer/shorter] than it actually was.

**Qs for exam:**  Is perception veridical (truthful)? What do visual illusions reveal about perception? Incorporate this week’s lab in your answer, and identify the visual features that led to perceptual misjudgments. How is understanding the world an interaction of “sensation (bottom-up processing)” and “perception (top down processing)”? In what sense, and under what sort of circumstances, might “errors” such as perceptual misjudgments be problematic? When might these illusions be useful? Support your answers by generating novel examples of 1) a beneficial perceptual misjudgment, and 2) a deleterious one.

For fun….How well can you judge gender based on motion cues? Go here to find out: [http://www.biomotionlab.ca/Experiments/BMLmdsex/](http://www.biomotionlab.ca/Experiments/BMLmdsex/)
Poke around the website to see other cool demos.

  Memory: *Memory feats, foibles, and fallacies.*

Readings:  pp. 321-365, Chapter 9, Memory and Consciousness

**Optional Reading:**  Wittlinger, M., et al. (2006). The ant odometer: Stepping on stilts and stumps.

**Lab #5 Numerical Memory (NOTE: requires headphones) (due Friday, 10/9)**

**Your Data:**
Time: ___ sec
Audio # Correct (AUD): ___
Visual # Correct (VIS): ___

Lab #6 Mental Rotation (due Friday, 10/9)

Your Data:
(Copy and paste your data line from OPL site)
ANG0COR  ANG0TIME  DANG0COR  DANG0TIME …etc.

Lab #5:
Qs for exam: Explain this statement, “Short-term memory is the primary bottleneck in human information processing.” Short-term (a.k.a., Working) Memory is conceptualized as a limited storage space that operates for a brief duration. (In contrast, Long-term Memory is conceptualized as a permanent repository with vast capacity, yet prone to retrieval difficulties.) How do the experimental findings of the Numerical Memory Lab elucidate the characteristics of the hear-and-now-memory? That is, what is the capacity of short-term working memory for spoken material? For visually-presented material? What modality (visual vs. auditory) produced longer “spans,” and speculate on what might account this pattern of findings? Are the spans for both modalities consistent with Miller’s Magical Number? Besides number of items presented, what other factors influence the capacity (digit span length) of short-term memory? For example, did you engage in any strategic rehearsal process to remember the digits? Explain.

More generally, do you think you have limited memory to focus on the hear-and-now? How might this attentional “bottleneck” affect your ability to do two things simultaneously? Imagine that you had to complete the lab again, but this time, you were asked to both hold the digits in temporary memory while simultaneously saying repeatedly “blah, blah, blah…” (i.e., an articulatory suppression task) until prompted to recall the digits. What would this articulatory suppression task actually suppress? My daughter insists that she can do her homework while simultaneously watching television. I disagree. Explain how the Numerical Memory Lab’s findings offer support for mom’s intuition.

Lab #6:
Qs for exam: Some memories are described as picture-like. Let’s try to elicit this type of memory in you. How many windows are on the front of your residence? In which hand do es the Statue of Liberty hold the torch? To answer these questions, most report “seeing” a visual image. What was your phenomenological experience when answering these questions? Could your “memory” be wrong regarding the number of windows at your residence and the Statue of Liberty’s handedness? Our subjective experience about the form of a mental image is not necessarily veridical (truthful). For example, if we look at a scene, we see height, width, and depth (3-dimensions). Yet, our retinas (in the back of the eyes) only record 2-dimensions, similar to how only two dimensions are captured by a “flat” photo. The third dimension of depth is restored by our minds. Thus, there is good reason to be skeptical about introspective evidence.

Instead of relying on introspections, how did the Mental Rotation experiment explore “mental images” in a scientific way? According to Shepard and colleagues’ Mental Rotation experiments, if it takes you one second to mentally rotate an object thirty degrees, how long will it take you to mentally rotate the object sixty degrees? What are the implications (i.e., take home message) of Shepard and colleague’s mental rotations experiments? How could a researcher redesign the Mental Rotation
experiment to examine if blind participants could perform mental rotation? Could such a version of the Mental Rotation experiment with blind participants potentially settle the debate about whether there are really “pictures” in our heads?

**Week 7  Memory: Strategies for improvement.**
**Thinking: Rational and seemingly irrational thought investigated.**

**Readings:** pp. 369-387, Chapter 10, Reasoning and Intelligence


**Lab #7: Self Reference (due Friday, 10/16)**

**Your Data:**
Self Hit Rate (SELF HR): ___
Self False Alarm Rate (SELF FAR): ___
Self Discrimination Index (SELF DI): ___
E-word Hit Rate (EWORD HR): ___
E-word False Alarm Rate (EWORD FAR): ___
E-word Discrimination Index (EWORD DI): ___
My data is ____ [consistent/inconsistent] with the hypothesis because the ratio of hits to misses for self-reference words is ____ [greater/less] for E-words.

**Qs for exam:** In the movie Memento (2000), the lead character is a man suffering from anterograde amnesia, unable to form new memories since his wife died. Thus, he cannot remember new names, dates, faces, and events. Rehearsal has no long-term effects on retention in his memory. When momentarily distracted, this amnesiac will completely forget what he has been holding in temporary, conscious memory. To hunt down his wife’s killer, the amnesiac makes up for his inability to retain new information by annotating instant snapshots, compiling sticky notes, and consulting his permanent record in the form of tattoos.

Commonly, people complain about the inability to remember the name of someone just introduced—a la Memento style. Based on: 1) the Self-Reference Lab and 2) Craik and Tulving’s (1975) research on Depth (Levels) of Processing (see textbook), offer science-based advice on how to minimize the “just-forgot-the-name” phenomenon. Be specific about the processes that influence the movement of information from short-term to long-term storage? Include the mnemonic benefits of “elaboration,” “organization,” and the power of a well-developed construct of self or intimate-other in your answer.

**Week 8  Attention: Can you simultaneously talk on that cell phone and safely drive, really?**
Exam 2, Wednesday 10/21

(EXAM 3 MATERIAL BEGINS HERE)


Lab #8: Social Balance (due Friday, 10/23)

Your Data:
(Copy and paste your data from OPL site.)
Likes—Dislikes: ___
Likes—Loves: ___
Likes—Hates: ___
Likes—Likes: ___
Likes—Neutral: ___; .....

Qs for exam: Would you be more prone to litter on campus (e.g., throw items from the Little Mac Bridge into the ravine), if you just witnessed students cheating on an exam? To help answer this question, begin with these: What was the role of environmental influences on disorderly behavior, as demonstrated by Keizer & colleague’s (2008) experimental findings? Does the mere presence of graffiti, littering, or other acts of vandalism trigger disorderly behavior and petty crimes? Be specific. What evidence in the study supports the “cross-norm inhibition effect”? Could fixing the “broken window” (so to speak) fix the problem? Finally, name one change/movement on campus that could potentially reduce an unwanted disorderly student behavior on campus.

Fall Breather on October 24 and 25—No academic homework for the entire weekend. Practice the three “R”s: Relax. Restore. Reinvigorate.

Week 9 Social: Subtle, unconscious ways in which the social world shapes how we act and think. Zajonc’s (1960) concepts of balance, congruity, and dissonance.

Drop Deadline - grade W, October 30

Reading: pp. 539-570, Chapter 14, Social Influences on Behavior


Lab #9: Facial Recognition (due 10/30)

Your Data:
Condition: _____ [Control / Experimental]
Day 1:
Hits: ___; Misses: ___; False alarms: ___; Correct rejections: ___
Discrimination index (DI): ___
Day 2:
Hits: ___; Misses: ___; False alarms: ___; Correct rejections: ___
Discrimination index (DI): ___

Qs for exam: Imagine that you are a member of a jury deliberating a criminal case. The only evidence against the defendant is the testimony of an eyewitness who, under cross-examination, reported that the defendant was at the scene of the crime. The night before the jury’s final deliberations, you completed this lab assignment (so the relevant research is fresh in your mind). To your fellow jury members, explain the purpose of the Facial Recognition lab. In your oration, explain the “discrimination index,” and how this estimate is calculated differently than simple judgments of “old” and “new.” Explain the “source monitoring error.” Do the experimental findings reveal this type of recognition error? How are all these issues related to the criminal case?

Week 10 Social: Cognitive processes in prejudice.
In-class Film: Obedience

Readings: pp. 503-537, Chapter 13, Social Perception and Attitudes
pp. 231-241, Chapter 3, Foundations for Understanding Emotions

Lab #10 First Impressions (due Friday, 11/6)

Your Data:
Alphas (A)
Sum of Positive: ___
Sum of Negative: ___
Percent of Negative: ___%
Betas (B)
Sum of Positive: ___
Sum of Negative: ___
Percent of Negative: ___%

Week 11 Personality: Cognitive processes in personality.
Social and Emotional Development.
Do parent-child attachments become part of personality?
Do we have a need to belong?

Readings: pp. 573-594, Chapter 15, Personality
pp. 461-468, Chapter 12, Social Development

Lab #11 Implicit Association Test Race (due Friday, 11/13)

Lab #12 Weapons Implicit Association Test (due Friday, 11/13)
Note: This lab is located here: https://implicit.harvard.edu/implicit/ via “Demonstration Tests.” Proof of completion is a one-sentence summary of attitudes provided upon completion of the experiment.
**Qs for exam:** Historically, people’s attitudes and beliefs have been measured by self-report. Yet, self-report is vulnerable to social desirability (changing responses in accordance with presentation of one’s desired image) (Greenwald & Banaji, 1995). For example, individuals may fail to self-report racial prejudices out of a fear of social reprimand. Self-report also relies on conscious introspection. Yet, research reveals that many mental processes occur outside awareness (Bargh & Chartrand, 1999). Thus, self-reporting individuals may fail to recognize that they harbor prejudices (Uhlmann, Greenwald, & Banaji, 2009). By comparison, because the IAT relies on automatic, associative processes involved in attitudes and beliefs, participants’ responses are difficult to fake or control. Explain.

What similarities exist between the IAT Lab and the Stroop Lab? In the IAT Lab, what conditions yielded longer reaction times (and were more error prone)? Under what conditions were reactions times faster and more accurate? What, then, are reaction times measuring? The IAT researchers never explicitly labeled an object, person, or group with derogatory terms. Then, how did the researchers evaluate stereotypic views, without the use loaded words? Based on your understanding of the IAT Lab’s findings, can words be “loaded”? For example, should we remove words such as “he” and “chairman” from our language? Defend your answer. Finally, if you wanted to plan a university-wide intervention at GVSU to reduce, or potentially eliminate race bias, what plan of action might you propose to the Student Senate?

**Week 12  The Biology of Mind and Behavior**

*The neuroscience of reading faces and recognizing words*

*In-class Movie: The Man with Two Brains*

**Exam 3, Wednesday, 11/18**

(Exam 4 Material Begins Here)

**Readings:** pp. 159-164 and pp. 172-177 and pp. 180-192, Chapter 5, Neural Control of Behavior

pp. 205-230, Chapter 6, Sex: An Example of a Non-regulatory Drive; The Sleep Drive


**Lab #13: Word Recognition (due Friday, 11/20)**

NOTE: To fully appreciate the lab, you will view in class the Scientific American Frontiers segment titled, *Man With Two Brains.*

**Your Data:**

Hand Preference: _____ [Right/Left]

Right: ___ (proportion correct); Left: ___ (proportion correct)

**Lab# 14: Mirror Drawing (due Friday, 11/20)**

**Your Data:**

Hand Preference: _____ [Right/Left]

Time for Left: ____ sec; Time for Right: ____ sec
Qs for exam for Labs 13 & 14: Are the two hemispheres of the brain created equal? To answer this question, offer as evidence the results of this week’s lab that investigates hemispheric specialization. Which hemisphere should have the advantage in word recognition? Which hemisphere should have the advantage in visual spatial tasks? Include the concepts of “brain lateralization” and “contralateral control” in your answer. To further elucidate the hemispheric specializations of the brain, where is face recognition in our brain? As depicted in the film “Man With Two Brains,” if a split-brain patient was shown to the right visual field a painting of a face-made-out-of-books by the famous 16th Century Italian artist Giuseppe Arcimboldo (who constructed faces from ordinary objects [e.g., flowers; books]), what would this patient report seeing? What would happen if the face-made-out-of-books painting was presented to the patient’s left visual field? Based on your answer, what advice would you give product package designers on the placement of verbal and visual elements on product packaging?

Week 13: Stress, Health and Coping: Can stress increase susceptibility to the common cold? In-class Movie: To heal or not to heal Psychological Disorders: The suffering mind: Forms of mental disorders. Worksheet: Diagnosing Psychological Disorders

Readings: pp. 617-659, Chapter 16, Mental Disorders

Thanksgiving Break, November 25 – 29.

Week 14: Social and genetic influences in schizophrenia and depression Biology of Mind and Behavior: Can depression result from a chemical imbalance?

Readings: pp. 617-659, Chapter 16, Mental Disorders (Cont.)

Week 15 Treatment: Scientific evidence on the effectiveness of psychological therapy Can talking about personal problems relieve suffering? Can relationships protect people from illness?

Readings: pp. 663-692, Chapter 17, Treatment

Lab #15: Dichotic Listening (NOTE: requires headphones) (due Friday, 12/11)

Your Data:
Hand Preference: ___
Number Correct Left Ear: ___; Number Correct Right Ear: ___
Q: Using the Dichotic Listening experiment to screen for depression, you will ask soldiers to shadow (repeat aloud) neutral words and phrases presented to their right ear. A depressed soldier, compared to a nondepressed one, will more likely attend to what type of words/phrases presented to his/her left, unshadowed ear? That is, generate five examples of words and/or phrases which will be uniquely distracting to a depressed person when presented in the nonattended ear? To use the Dichotic Listening experiment to screen for PTSD, what five words or phrases would be uniquely distracting to these sufferers when presented to their nonattended ear? Upon making a diagnosis of PTSD, explain to these soldiers what are the mechanisms considered crucial to overcoming a traumatic event. Include “habituation,” “exposure (self-confrontation),” and “cognitive reappraisal” in your tutorial.

Your esteemed colleagues, the soldiers, and your professor thank you for recommending scientifically-validated therapeutic practices!

Final Exam Schedule:

Section 2 (Class meets 10-10:50 AM): Tuesday, December 15, Noon-1:50 PM
Section 1 (Class meets Noon-12:50): Wednesday, December 16, 2-3:50 PM
Section 4, Honors (Class meets 11-11:50 AM): Wednesday, December 16, 10-11:50 AM
This course is part of GVSU’s General Education Program. PSY 101 is designed to help you learn:
1. How knowledge in the social or behavioral sciences is created and applied.
2. The major approaches, methods, theories, and substantive findings of the field.
3. An informed critical stance that will allow students to weigh and apply ideas and claims from the social and behavioral sciences outside the classroom.
4. Critical and creative thinking, which uses systematic reasoning to examine and evaluate ideas, leading to new ways of thinking or doing. Students will:
   • Assess differing perspectives and assumptions.
   • Evaluate evidence and the logic of arguments.
   • Formulate novel approaches or create alternative interpretations.
5. Ethical reasoning, which is a decision making process based on defining systems of value. Students will:
   • Recognize ethical issues when presented in a complex situation.
   • Demonstrate their understanding of key concepts and principles underlying various systems of reasoning.
   • Participate in activities that engage them in ethical reasoning.
   • Demonstrate the ability to deal constructively with ambiguity and disagreement.

Teaching in the liberal tradition is at the heart of Grand Valley's identity, and this focus is critical in our General Education Program. Liberal education transcends the acquisition of information; it goes beyond the factual to ask important evaluative and philosophical questions. Liberal learning holds the fundamental principles and suppositions of a body of knowledge up to inquiry, question, and discussion. It helps a person recognize the assumptions under which he or she operates and encourages the examination and questioning of those assumptions. Liberal learning begins in the General Education Program and continues through the more specialized studies comprising each student's major and minor areas of study.

*Grand Valley State University educates students to shape their lives, their professions, and their societies.*