



OTRP *online*
office of teaching resources in PSYCHOLOGY

PSY 101: Psychological Science Spring 2016

MWF, 9:00-9:50 am, Shadok-Fackenthal Library 106

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Office Hours: Mondays 2:30-4:00pm, Wednesdays 1:30-4:00pm, or by appointment

Course Description

Why are scuttling tarantulas scarier than speeding Toyotas? Do opposites attract in romantic relationships? How accurate are we when we try to figure out what others are thinking? None of these questions can be answered without scientifically investigating what is perhaps the most complex entity in the known universe: the human mind.

PSY 101 is a topics-based, non-lab, non-survey, question- and procedure-oriented discussion of important perspectives in contemporary psychological science. The course will examine origins, support for, and applications of various theoretical positions. In the process of reading sources that illustrate how these procedures occur in actual practice, you will learn to appreciate the empirical procedures through which psychologists formulate and evaluate hypotheses about the mind, behavior, and human nature.

Course Objectives

Psychology pervades the popular media. Front-page articles and news stories assert that violent video games cause people to become more aggressive, state that extraverts are happier than introverts, and claim that “left-brained” people are better at math than “right-brained” people. As an inevitable consumer of these types of information, this class will provide you with tools to capably evaluate the claims being made, as well as to knowledgeably utilize scientific findings to gain insight into some of your own thoughts, values, and personality.

Provided that you attend class regularly, actively participate in class discussions, assiduously complete all assignments, and adhere to all other class policies, you will proficiently achieve the following outcomes by the end of this course, as designated by the requirements of Natural Science in Perspective (NSiP) classes:

- **Recognize** the scope and goals of psychology, the role that it plays in modern society, and the ethical conduct and uses of psychology.
- **Understand** the role of evidence in developing and testing psychological theories and the criteria for constituting acceptable evidence in the scientific investigation of the mind and behavior.
- **Utilize** improved quantitative reasoning skills in assessing psychological data and designing empirical studies.
- **Evaluate** the validity of established theories in the psychological literature and the accuracy of recounted findings in the popular press.
- **Synthesize** psychological literature in grappling with uncertainties, applying evidence to real-world situations, and formulating stances on relevant debates.

Should You Take This Class?

PSY 101 is designed for a very particular subset of students. Please ensure that this is the right class for you.

- **This class CANNOT serve as a prerequisite for any upper-level psychology courses** (except in combination with BIO 110). Therefore, you should not take this course if you are considering pursuing further coursework in psychology. Instead, you should enroll in PSY 100, which will prepare you more directly for higher-level coursework in the Psychology Department.
- **This class examines the scientific tools and theories that inform an empirical understanding of the typical workings of the human mind.** This is a primary aim of psychology, contrary to the common assumption that psychology exclusively involves the characterization and clinical treatment of psychopathologies. We will touch briefly on psychological disorders; however, be aware that this is not the principal focus of the course.

- **This class will be rigorous and will require thorough engagement with the material.** Psychology sometimes has the reputation of being easy – a “soft science”. However, like other scientific disciplines, it requires critical thinking and understanding many counterintuitive concepts. Arguably, psychology addresses some of the most difficult questions ever asked by scientists. Earning a high grade in this course will not be easy, and you will need to consistently keep up with readings, thoughtfully contribute to discussions, and put in substantial effort on assignments.

Required Texts

- Pinker, S. (2002). *The blank slate: The modern denial of human nature*. New York, NY: Penguin.
- Prinz, J. J. (2012). *Beyond human nature: How culture and experience shape the human mind*. New York, NY: Norton.
- Stanovich, K. E. (2013). *How to think straight about psychology* (10th ed.). Boston, MA: Pearson.
- Additional material posted on Canvas (canvas.fandm.edu) or provided via hyperlinks.

Course Requirements and Grading

You have the potential to earn up to 100 points in this course (plus up to 2 points of extra credit), as follows:

Participation	Reading Responses	Presentation	Midterm Exam	Study Design	Active Learning	Final Paper
10 points	20 points	10 points	15 points	15 points	5 points	25 points

Letter grades will be assigned as follows (decimals will be rounded to the nearest whole number):

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	63–66	D-	60–62	F	0–59

Class Participation

Research has convincingly shown that active participation makes learning more effective. You are expected to come to class prepared to discuss all of the assigned readings critically and creatively, making intelligent points and raising thought-provoking questions that touch upon elements ranging from the nitty-gritty (e.g., a flaw in the design of an experiment) to the bigger picture (e.g., the broadest implications of a finding). The grade for participation will reflect the quality – rather than quantity – of your in-class comments and questions, as well as your engagement with classmates and your encouragement of their participation. In order to give everybody an equal opportunity to receive a full 10 points, I may sometimes refrain from calling on frequent participators and I may institute random cold calling at any time. If you do not wish to answer when I cold call on you, simply state that you would like to participate at a later time instead. Do not engage in side conversations; instead, I request that you direct your questions to the whole class. Please respect a diversity of opinions and questions, and aim to contribute constructively and considerately.

Participation grades will be assigned according to the following benchmarks. Borderline grades will be adjusted based on attendance and punctuality. I will periodically update participation grades on Canvas.

- 10 = Always prepared for discussion, having thought critically about all assigned readings and formulated questions for discussion. Comments are thoughtful and reveal a deep engagement with the material. Respectfully engages others and generously listens to their contributions, and consistently elevates the level of discussion.
- 8 = Comes to class having completed the readings, but does not have discussion questions in mind. Comments are often thoughtful, but they do not always elevate the level of discussion.
- 6 = Waits for others to raise interesting questions and comments infrequently, often only when prompted.
- 4 = Infrequently comes to class prepared and rarely contributes to discussion.
- 2 = Almost never participates in discussion, and is not actively engaged during class.

Weekly Reading Responses

Each Sunday by 5:00pm (with the exceptions of Weeks 1, 6, and 8), you are required to write a short (approx. 250-word) reading response (“RR”) that critically discusses the assigned reading(s) for the next week. This can either take the form of a brief paragraph or bullet points, and can additionally include questions for discussion. These responses should be written in the Discussion forum on Canvas. (However, note that these will be openly viewable by the other students in the class. If you would ever like to submit something less publicly, you may instead submit your RR to me via email.)

Possible content includes discussing potential applications to your own life or the lives of others, contradictions or agreements between different readings, comments or questions about particularly interesting or confusing aspects of the readings, potential follow-up research, and/or critiques of the readings (including discrepancies between the data and the interpretation of the results). Please be civil in your responses, and focus on details that are specific to the assigned readings. Because you are writing brief responses, it is important that you stay focused and do not include irrelevant

details. You must turn in a total of 10 RRs, which means that you are allowed 1 “pass”. If you submit an additional RR, your lowest grade will be dropped. Each RR will be worth 2% of your final grade, and will be scored as follows:

- 2 = Demonstrates a deep engagement with the readings. Provides shrewd insights or raises provocative questions.
- 1 = Merely summarizes readings, and/or does not provide insightful fodder for discussion.
- 0 = Does not provide evidence of having completed the readings, and/or is considerably below the word limit.

Team Presentation

In small groups of three or four, you will lead a 20-minute class presentation on representations of psychology in the popular media. Your team will identify a television clip, news article, blog, or any other secondary source that describes a specific psychological finding. You will be required to find the primary source in which the experimental data were published and then present on the discrepancies between how the work is presented in the media and in the original paper. Describe what the journalist did well and what they could have improved upon. Each team member is expected to contribute equally to this project, and (with the exception of unusual circumstances) every member of your group will receive the same grade. The presentation will be graded according to the following benchmarks:

- 10 = Provides insightful, high-level commentary about discrepancies and similarities between secondary and primary sources. Displays excellent teamwork.
- 8 = Provides some insightful commentary about discrepancies and similarities between secondary and primary sources, but does not go into depth. There are indications that the team struggled to work together effectively.
- 6 = Merely summarizes the articles being discussed. Teamwork is lacking.
- 4 = Provides only a cursory summary of the articles being discussed. Teamwork is lacking.
- 2 = Assignment was not fully completed and the team is unprepared for their presentation.

Midterm Exam

The exam will cover all material from the first half of the semester, and will include a total of 30 multiple-choice questions. It will be open-book and open-note; you may use any non-electronic aids that you would like to bring to class (NB: this does not mean that you will be able to earn a high grade without studying). You will not be assessed on your memorization of isolated facts, but rather on your ability to synthesize and apply the information that you have learned, which will require a deep understanding of the material.

Study Design Project

For this assignment, you will identify a psychological hypothesis and describe how it could be scientifically tested by detailing two studies: one correlational and one experimental. You can address a nearly endless array of phenomena, so choose a topic that is of genuine interest to you. This assignment will be submitted in two stages: First, a one-sentence proposed hypothesis is due via email by March 4. After receiving approval, you should write a 1,000-word paper (± 250 words) describing your hypothesis, your intended participants, your methods, and the possible limitations of your studies in confirming or disconfirming your hypothesis. You should imagine that a researcher will be conducting your study based on the information you provide; be sure to include sufficient detail about your methods (you may wish to include an Appendix presenting specific questions that will be given to participants). This will be due by March 25, and should be uploaded to Canvas with only your F&M ID number for identification. This project will be graded as follows:

- 15 = Demonstrates a solid understanding of correlational and experimental design. Formulates a creative and realistic means of testing a hypothesis, with precise detail about methods and limitations.
- 12 = Demonstrates a good understanding of correlational and experimental design, with minor misconceptions. Formulates a passable means of testing a hypothesis, with adequate detail about methods and limitations.
- 9 = Demonstrates some understanding of research design, but has several prominent misconceptions. Formulates an unrealistic or mistaken method for testing a hypothesis, with vague details about methods and limitations.
- 6 = Demonstrates an inaccurate understanding of research design. Fails to present a reasonable methodology.

Active Learning Requirement

You are required to participate in three hours of research in the Psychology Department, which will involve taking part in a combination of several studies lasting for 30–90 minutes each. This experience will allow you to contribute to psychological science while simultaneously gaining first-hand insight into how actual experiments are conducted. You can sign up to participate at fandm.sona-systems.com (check back regularly for new postings). If you do not wish to participate in research, or if you fail to show up for more than one study without cancelling your appointment, you will need to complete a writing assignment as an alternative for receiving credit (please contact me for details).

You are additionally required to attend the Psychology Research Symposium on April 19 from 7pm–10pm, during which the experimenters will present the findings of their research projects (including those in which you participated). You will receive 1 point for handing in summaries of two of the presentations, which will be graded on a pass/fail basis.

Finally, you will receive 1 point for writing 500 words about either (a) a personal life experience as interpreted through the lens of psychology, or (b) an outside lecture related to psychology that you attend during the course of the semester. This can be submitted anytime before the end of the semester, and will be graded on a pass/fail basis.

Final Paper

In 2,500 words (± 500 words), you should attempt to convincingly resolve the nature/nurture debate once and for all. This need not be an all-or-none argument, but rather should evaluate the evidence in a nuanced way to reach a reasonably tempered conclusion. In doing so, you should heavily utilize information from class readings (primarily Prinz's and Pinker's books, but also Stanovich's book and other assigned articles) to demonstrate a thorough grasp of psychological science and the fundamental issues at stake in disputes about nature and nurture. Optionally, you may also find it helpful to incorporate at least one academic paper that you have found via Google Scholar or a library database (NB: one way to find these is to look up the references that are cited in the endnotes of your books). Finally, you should briefly discuss the potential ethical ramifications of your argument.

You may choose to be creative in your approach (for example, you could write a short play involving a dramatic dialogue between Pinker and Prinz, as long as it includes appropriate citations). However, keep in mind that you will be graded on your application of evidence and your understanding of psychology, as well as your ability to synthesize multiple readings from the semester and your success in formulating a persuasive argument. This paper must be uploaded to Canvas during finals week (date/time T.B.A.) with only your F&M ID number for identification. If you would like to receive feedback on this paper, please "opt in" by adding a note in the Comments section on Canvas.

I am happy to provide extensive feedback on outlines or drafts that are submitted on or before the last day of class (April 20). **I strongly encourage you to take advantage of this opportunity.**

The paper will be graded according to the following benchmarks:

- 25 = Presents a clear argument that thoroughly and insightfully analyzes the strengths and weaknesses of both naturist and nurturist claims in order to support a clear position in this debate. Accurately evaluates and synthesizes a range of evidence – and in doing so, demonstrates a thorough grasp of experimental design, a deep understanding of how theory informs the interpretation of scientific data, and an awareness of the role that uncertainty plays in psychology.
- 20 = Presents a good argument that makes an effort to analyze the strengths and weaknesses of both naturist and nurturist claims in order to support a clear position in this debate. Evaluates and synthesizes evidence from multiple readings in a way that demonstrates an emerging grasp of experimental design, a basic understanding of how theory informs the interpretation of scientific data, and a imprecise awareness of the role that uncertainty plays in psychology.
- 15 = Presents a weak argument that only cursorily analyzes the strengths and weaknesses of the opposing position and neglects a complete discussion of the strengths and limitations of the thesis being maintained. Does not adequately evaluate or synthesize evidence from the readings. Provides a limited degree of understanding how methodology, theory, and uncertainty play important roles in drawing conclusions about scientific data.
- 10 = Struggles to present an argument, and fails to address relevant textual evidence. Provides only hints of understanding how methodology, theory, and uncertainty play important roles in drawing conclusions about scientific data.
- 5 = Incomplete and unfocused. Displays minimal reflection on the topic and no evidence of understanding the purpose of the assignment. Many elements are entirely absent.

Extra Credit Opportunities

- You can receive 0.25 points of extra credit for coming to my office hours at least once in the month of January.
- You can receive 0.25 points of extra credit for visiting the Writing Center at least once for help on an assignment.
- You can receive 0.25 points of extra credit for sending me a current news article that is relevant to psychology (not including the article you use in your team presentation). You may be called upon to describe the major findings during class. You can send up to 4 articles during the course of the semester (up to 1 point total).

Appealing Grades

If you receive a grade that is inconsistent with what you believe you should have earned, you have one week to set up an appointment with me to appeal your grade. When scheduling this appointment, you must submit a written statement explaining your case. After one week has passed, all grades are considered final.

Revising Assignments

You have the opportunity to revise all of your RRs, as well as your Study Design Project, within a week of receiving a grade. For each additional point that you earn in your revision, an extra half point will be added to your original grade (e.g., if your grade on your initial RR was a 1, and your revision is worth 2 points, you will receive 1.5 on that RR).

Policy on Late Assignments

You will lose one point for every day that an assignment is late. In extreme cases when unexpected and unavoidable circumstances prevent you from completing an assignment on time, please inform me as soon as possible, and I will use my discretion to determine whether to waive the late penalty.

Policy on Electronic Devices

One of the wonderful aspects of studying psychology is that experimental results can often be applied to everyday life. Improving learning and retention of classroom material has been studied empirically, and it has been found that learning is significantly hindered when electronic devices are permitted in classrooms. For example, a recent paper (Mueller & Oppenheimer, 2014) found that understanding of lecture material was improved for students who took notes using paper notebooks compared to students who took notes using laptops (even when these students were prevented from also using Facebook, etc.). Laptops and cellphones have also been showed to pose substantial distractions for other students. Therefore, **you may not use ANY electronic devices during class** unless you have a compelling reason for using a laptop to take notes (if this is the case, please speak with me privately).

Academic Integrity

I take academic honesty **very** seriously. You risk severe consequences by committing acts of plagiarism (i.e., representing someone else's work as your own), cheating, falsification, impersonating, or other similar offenses, including facilitating another student in committing an act of academic dishonesty. Penalties for these offenses will be carefully assessed on a case-by-case basis, and may include receiving a failing grade in the course or expulsion from F&M. Please refer to the Franklin & Marshall College Catalog for additional details.

Disability Accommodations

Academic accommodations are available for students with disabilities. Please schedule an appointment with me immediately to discuss any accommodations for this course that have been supported by appropriate documentation and approved by the Office of Disability Services. I will keep all information confidential.

Communication

Email is generally the best way to reach me. Unless I announce otherwise, I will almost always respond within 24 hours. I will also be available to talk in my office during the times listed at the top of the syllabus, by appointment, and whenever my door is open. I encourage you to take advantage of this. Because this course involves some discussion of sensitive topics, it may trigger a stress response or lead to uncomfortable emotional reactions. I will ensure that the classroom atmosphere remains compassionate; however, you may wish to speak with me privately about any concerns that lectures, readings, or discussions bring up for you. I value open communication, and invite you to be frank with me.

Other Tips

This class will be rigorous and intensive. It will require a great deal of reading and writing, and you will be expected to learn a lot of difficult material in a short time span. However, I am here to help you succeed, and I encourage you to chat with me about any difficulties you are having with the material and/or assignments. Additionally, please feel free to take advantage of the many resources that Franklin & Marshall has to offer! For example, the Writing Center (on the second floor of Diagonthian Hall) can assist you with writing and other academic skills. ESOL tutoring is also available (you can make appointments at fandmesl.simplybook.me). Counseling Services (in the basement of Appel Infirmary) can support your wellbeing, and offers free initial consultations and emergency visits. Your peers can also be great resources; reaching out to your fellow students and forming study groups can be a fun and collaborative way to learn. Finally, if any issues arise that have the potential to interfere with your success in the course, please be in touch with me as soon as possible.

Important Dates

January 26	February 9	March 12–20	April 11
Last day to add classes or	Last day to elect the	Spring	Last day to withdraw

withdraw without record P/NP grading option break classes with record

January 29	February 15–19	March 2	March 4	March 25	April 19	T.B.A.
Team meetings for presentations	In-class team presentations	Midterm exam	Study design hypothesis due	Study design project due	Research symposium	Final paper due

Semester Schedule

Week #	Lecture Topic	Reading Assignments (to be completed by the beginning of each week)
Designing, Conducting, Applying, and Disseminating Psychological Research		
Week 1 (1/13, 1/15)	Introduction to the course: What psychology is(n't)	Course syllabus [Posted on Canvas] Stanovich, K. (2013). <i>How to Think Straight about Psychology</i> (pp. 1–19). Dunn, E.W., & Norton, M. (2014, April 25). <i>The New York Times</i> . [http://nyti.ms/1m2QooS]
Week 2 (1/18, 1/20, 1/22)	Psychology in the real world: Promises, limitations, and ethical issues	Konnikova, M. (2015, January 14). <i>The New Yorker</i> . [http://bit.ly/1KOoHUv] Hughes, V. (2013, July 29). <i>Aeon</i> . [http://bit.ly/1WOIMmC] Dixit, J. (2006, January 26). <i>Slate</i> . [http://slate.me/1hWXx61] Costandi, M. (2013, August 15). <i>Nature</i> , 500, 268–270. [Posted on Canvas] Spiegel, A., & Miller, L. (2015, January 9). <i>NPR</i> . [http://n.pr/1DIIPgs]
Week 3 (1/25, 1/27, 1/29)	Psychological science in the popular press and academic journals	Mehr, S.A. (2015). <i>Frontiers in Psychology</i> , 6, 988. [Posted on Canvas] Marcus, G. (2012, November 30). <i>The New Yorker</i> . [http://bit.ly/1YncnH4] Jacobs, T. (2014, June 17). <i>Pacific Standard</i> . [http://bit.ly/1mdBMRT] Lee, K., et al. (2014). <i>Psychological Science</i> , 25, 1630–1636. [Posted on Canvas]
Week 4 (2/1, 2/3, 2/5)	Correlations and experiments: Determining causation	Stanovich, K. (2013). <i>How to Think Straight about Psychology</i> (pp. 73–106).
Week 5 (2/8, 2/10, 2/12)	Designing and understanding psychological research	Stanovich, K. (2013). <i>How to Think Straight about Psychology</i> (pp. 37–52, 107–121, 151–165).
Week 6 (2/15, 2/17, 2/19)	Team presentations	
Week 7 (2/22, 2/24, 2/26)	Additional topics in introductory psychology	T.B.A., based on class interest [will be posted on Canvas] (Choices include personality, neuroscience, psychopathology, cognition, sleep, and parenting) Stanovich, K. (2013). <i>How to Think Straight about Psychology</i> (pp. 185–205).
Week 8 (2/29, 3/2, 3/4)	Review for midterm (M); Midterm exam (W); Exams returned and recap (F)	
Interpreting Psychological Evidence: The Nature/Nurture Debate		
Week 9 (3/7, 3/9, 3/11)	The nature/nurture debate and its implications	Prinz, J. (2012). <i>Beyond Human Nature</i> (pp. 1–14, 365–368). Pinker, S. (2002). <i>The Blank Slate</i> (pp. vii–xii, 5–6, 14–26, 141–158).
Week 10 (3/21, 3/23, 3/25)	Universals, variation, and the idea of human nature	Prinz, J. (2012). <i>Beyond Human Nature</i> (pp. 193–212). Pinker, S. (2002). <i>The Blank Slate</i> (pp. 30–41).
Week 11 (3/28, 3/30, 4/1)	Genes and heritability	Prinz, J. (2012). <i>Beyond Human Nature</i> (pp. 17–51). Pinker, S. (2002). <i>The Blank Slate</i> (pp. 45–51, 372–399).
Week 12 (4/4, 4/6, 4/8)	Evolution, learning, and plasticity	Prinz, J. (2012). <i>Beyond Human Nature</i> (pp. 137–169). Pinker, S. (2002). <i>The Blank Slate</i> (pp. 51–58, 73–102, 219–223).
Week 13 (4/11, 4/13, 4/15)	Debate: Is gender a biological or cultural phenomenon?	Prinz, J. (2012). <i>Beyond Human Nature</i> (pp. 213–238). Pinker, S. (2002). <i>The Blank Slate</i> (pp. 337–359).

Week 14 (4/18, 4/20)	Additional topics in the nature/nurture debate	T.B.A., based on class interest [from Prinz (2012) and/or Pinker (2002)] (Choices include IQ, morality, infancy, sexual behavior, aesthetics, religion, and violence)
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Note: Components of this syllabus are subject to change.

Please bring all required readings to class with you each day, and check Canvas regularly for updates.