Practicum in the Teaching of Psychology
PSYC GR6200 (1-3 points)
Fall 2017

Course information   Instructor: Caroline Marvin
Day: Wednesday   Office: 317 Schermerhorn
Time: 2:10-4pm   Office hours: Thursdays 2-4pm
Location: 200C Sch   Email: cbm2118@columbia.edu

Course Description: The Practicum is designed with two complementary purposes in mind: to foster the development of graduate students as future teachers of psychology and to enhance their efforts as teaching assistants for our undergraduate program. The course draws on empirical research in our field – from social psychology, cognitive psychology, and neuroscience – to address such topics as: teaching goals and strategies, giving effective lectures in large classes, facilitating productive class discussions, creating and grading student assessments, fostering inclusive classroom environments, and reflective teaching. The Practicum emphasizes the practice of scientific teaching, approaching pedagogy with the methods and rigor of scientific research.

Role in the Psychology Department Curriculum: This class is open to all graduate students in the Psychology Department, and is strongly recommended for both first- and second-year graduate students. Graduate students are expected to participate in the Practicum to fulfill the M.A. requirement.

Senior graduate students – even those who have already completed the Practicum – may also join the course as a "refresher" as they develop their own courses and prepare their applications for teaching scholar awards and academic positions. Graduate students may also attend selected sessions of the course without registering. Psychology Department faculty and postdocs and representatives of other key groups across the university, including the Center for Teaching and Learning and the Writing Center, will be invited to participate in selected sessions.

Schedule: The schedule below is tentative and subject to change based on student interests and the schedules of guest discussants. Readings will comprise empirical and review articles and book chapters; all will be posted on CourseWorks. Please note that if a reading or assignment appears next to a given date/topic, it means you should have completed that reading or assignment before coming to class. Supplemental readings are included for those who would like to explore a topic in greater depth.

Date	Topic	Readings
Week 1	***Why am I in this class?*** Introduction and discussion of	

	course objectives and learning outcomes	
Week 2	***What is scientific teaching?*** Researching and evaluating best practices in pedagogy	Bain, K. (2004). Defining the Best. In *What the best college teachers do* (pp. 1-21). Cambridge, MA: Harvard University Press. Handelsman, J., Ebert-May, D., Beichner, R., Bruns, P., Chang, A., DeHaan, R., ... & Wood, W. B. (2004). Scientific teaching. *Science*, *304*(5670), 521-522. Labov, J. B., Singer, S. R., George, M. D., Schweingruber, H. A., & Hilton, M. L. (2009). Effective practices in undergraduate STEM education part 1: examining the evidence. *CBE-Life Sciences Education*, *8*(3), 157-161. *Supplemental* Handelsman, J., Miller, S., & Pfund, C. (2007). Scientific teaching. In *Scientific teaching*. New York: Macmillan. Tanner, K. D. (2013). Structure matters: twenty-one teaching strategies to promote student engagement and cultivate classroom equity. *CBE-Life Sciences Education*, *12*(3), 322-331. Wieman, C. (Nov. 2007). The "Curse of Knowledge," or why intuition about teaching often fails. *APS News*. Vol. 16 (10).
Week 3	***What are my teaching goals? What kind of teacher do I want to be?*** Writing a teaching philosophy statement Guest discussant: Mark Phillipson from CTL?	Meizlish, D., & Kaplan, M. (2008). Valuing and evaluating teaching in academic hiring: A multidisciplinary, cross-institutional study. *The Journal of Higher Education*, *79*(5), 489-512. Sternberg, R. J. (2007). Critical thinking in psychology: It really is critical. In R. J. Sternberg, H. L. Roediger, & D. F. Halpern (Eds.), *Critical thinking in psychology*. (pp. 289–296). Cambridge, UK: Cambridge University Press. Wiggins, G. & McTighe, J. (2001). What is backward design?, in *Understanding by design* (pp. 7-19). Upper Saddle River, NJ: Merrill Prentice Hall.

		Supplemental
		Dweck, C. (2014). How Can You Develop a Growth Mindset About Teaching?. *Educational Horizons*, *93*(2), 15.
		O'Neal, C., Meizlish, D., & Kaplan, M. (2007). Writing a statement of teaching philosophy for the academic job search. *Ann Arbor: University of Michigan*.
Week 4	***Who are my students and how do I support their learning?*** Fostering inclusive environments and supporting the learning of all students Guest discussant: Representative from Purdie-Vaughns lab?	Cohen, G. L., Garcia, J., Purdie-Vaughns, V., Apfel, N., & Brzustoski, P. (2009). Recursive processes in self-affirmation: Intervening to close the minority achievement gap. *Science, 324,* 400-403. Gasiewski, J. A., Eagan, M. K., Garcia, G. A., Hurtado, S., & Chang, M. J. (2012). From gatekeeping to engagement: A multicontextual, mixed method study of student academic engagement in introductory STEM courses. *Research in Higher Education*, *53*(2), 229-261. Yeager, D. S., & Walton, G. M. (2011). Social-psychological interventions in education: They're not magic. *Review of Educational Research, 81,* 267-301. *Supplemental* Ambrose, S.A., Bridges, M.W., DiPietro, M., Lovett, M.C., Norman, M.K. (2010). Why do student development and course climate matter for student learning? In *How Learning Works: Seven Principles for Smart Teaching* (pp. 153-87). San Francisco, CA: John Wiley & Sons, Inc. Borman, G. D. (2017). Advancing values affirmation as a scalable strategy for mitigating identity threats and narrowing national achievement gaps. *Proceedings of the National Academy of Sciences*, 201708813. Jury, M., Smeding, A., Stephens, N. M., Nelson, J. E., Aelenei, C., & Darnon, C. (2017). The Experience of Low-SES Students in Higher Education: Psychological Barriers to Success and Interventions to Reduce Social-Class Inequality. *Journal of Social Issues*, *73*(1), 23-41. Layous, K., Davis, E. M., Garcia, J., Purdie-Vaughns, V., Cook,

		J. E., & Cohen, G. L. (2017). Feeling left out, but affirmed: Protecting against the negative effects of low belonging in college. *Journal of Experimental Social Psychology*, *69*, 227-231. Yamauchi, L. A., Taira, K., & Trevorrow, T. (2016). Effective instruction for engaging culturally diverse students in higher education. *International Journal of Teaching and Learning in Higher Education*, *28*(3), 460-470.
Week 5	***How do students learn best?*** How learning, memory, and motivation research can inform teaching practice Guest discussant: Representative from Metcalfe lab?	Karpicke, J. D., & Roediger, H. L. (2008). The critical importance of retrieval for learning. *Science*, *319*(5865), 966-968. Metcalfe, J., & Kornell, N. (2007). Principles of cognitive science in education: The effects of generation, errors, and feedback. *Psychonomic Bulletin & Review*, *14*(2), 225-229. Metcalfe, J. (2017). Learning from errors. *Annual Review of Psychology*, *68*, 465-489. *Supplemental* Bjork, E. L., & Bjork, R. A. (2011). Making things hard on yourself, but in a good way: Creating desirable difficulties to enhance learning. *Psychology and the real world: Essays illustrating fundamental contributions to society*, *2*, 59-68. Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013). Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. *Psychological Science in the Public Interest*, *14*(1), 4-58. Kornell, N., Rabelo, V. C., & Klein, P. J. (2012). Tests enhance learning – Compared to what?. *Journal of Applied Research in Memory and Cognition*, *1*(4), 257-259.
Week 6	***How do students learn best?*** How learning, memory, and motivation research can	Braver, Todd S., Marie K. Krug, Kimberly S. Chiew, Wouter Kool, J. Andrew Westbrook, Nathan J. Clement, R. Alison Adcock et al. "Mechanisms of motivation–cognition interaction: challenges and opportunities." *Cognitive, Affective, & Behavioral Neuroscience* 14, no. 2 (2014): 443-472.

	inform teaching practice Guest discussant: Representative from Higgins or Shohamy lab?	Paunesku, D., Walton, G. M., Romero, C., Smith, E. N., Yeager, D. S., & Dweck, C. S. (2015). Mind-set interventions are a scalable treatment for academic underachievement. *Psychological science*, *26*(6), 784-793. Rodriguez, S., Romero-Canyas, R., Downey, G., Mangels, J. A., & Higgins, E. T. (2013). When school fits me: How fit between self-beliefs and task benefits boosts math motivation and performance. *Basic and Applied Social Psychology*, *35*(5), 445-466. *Supplemental* Murayama, K., Matsumoto, M., Izuma, K., & Matsumoto, K. (2010). Neural basis of the undermining effect of monetary reward on intrinsic motivation. *Proceedings of the National Academy of Sciences*, *107*(49), 20911-20916. Pashler, H., McDaniel, M., Rohrer, D., & Bjork, R. (2008). Learning styles: Concepts and evidence. *Psychological science in the public interest*, *9*(3), 105-119. Renaud-Dubé, A., Guay, F., Talbot, D., Taylor, G., & Koestner, R. (2015). The relations between implicit intelligence beliefs, autonomous academic motivation, and school persistence intentions: a mediation model. *Social Psychology of Education*, *18*(2), 255-272.
Week 7	***How do I assess student learning?*** Writing effective test questions	Kerkman, D. D., & Johnson, A. T. (2014). Challenging Multiple-Choice Questions to Engage Critical Thinking. *InSight: A Journal of Scholarly Teaching*, *9*, 92-97. Tractenberg, R. E., Gushta, M. M., Mulroney, S. E., & Weissinger, P. A. (2013). Multiple choice questions can be designed or revised to challenge learners' critical thinking. *Advances in Health Sciences Education*, *18*(5), 945-961. Wideman, M. A. (2008). Academic dishonesty in postsecondary education: a literature review. *Transformative Dialogues: Teaching & Learning Journal*, *2*(1), 1-12.

		Supplemental
		Lynd-Balta, E. (2006). Using literature and innovative assessments to ignite interest and cultivate critical thinking skills in an undergraduate neuroscience course. *CBE-life sciences education*, *5*(2), 167-174.
		Macfarlane, B., Zhang, J., & Pun, A. (2014). Academic integrity: a review of the literature. *Studies in Higher Education*, *39*(2), 339-358.
		Räisänen, M., Tuononen, T., Postareff, L., Hailikari, T., & Virtanen, V. (2016). Students' and Teacher's Experiences of the Validity and Reliability of Assessment in a Bioscience Course. *Higher Education Studies*, *6*(4), 181-189.
Week 8	***How do I assess student learning?*** Grading written work Guest discussant: Sue Mendlesohn, Director of the Writing Center?	Bensley, D. A., Crowe, D. S., Bernhardt, P., Buckner, C., & Allman, A. L. (2010). Teaching and assessing critical thinking skills for argument analysis in psychology. *Teaching of Psychology*, *37*(2), 91-96. Roig, M. (1997). Can undergraduate students determine whether text has been plagiarized?. *The Psychological Record*, *47*(1), 113. Verkade, H., & Lim, S. H. (2016). Undergraduate science students' attitudes toward and approaches to scientific reading and writing. *Journal of College Science Teaching*, *45*(4), 83. *Supplemental* Bretag, T. (2013). Challenges in addressing plagiarism in education. *PLoS medicine*, *10*(12), e1001574. Gullifer, J. M., & Tyson, G. A. (2014). Who has read the policy on plagiarism? Unpacking students' understanding of plagiarism. *Studies in Higher Education*, *39*(7), 1202-1218. Park, C. (2003). In other (people's) words: Plagiarism by university students--literature and lessons. *Assessment & evaluation in higher education*, *28*(5), 471-488.
Week 9	***How do I teach a large class?***	deWinstanley, P. A., & Bjork, R. A. (2002). Successful lecturing: Presenting information in ways that engage

	Giving effective lectures and promoting active learning in large groups Guest discussant: Carl Hart?	effective processing. *New directions for teaching and learning*, *2002*(89), 19-31. Freeman, S., Eddy, S. L., McDonough, M., Smith, M. K., Okoroafor, N., Jordt, H., & Wenderoth, M. P. (2014). Active learning increases student performance in science, engineering, and mathematics. *Proceedings of the National Academy of Sciences*, *111*(23), 8410-8415. Preszler, R. W., Dawe, A., Shuster, C. B., & Shuster, M. (2007). Assessment of the effects of student response systems on student learning and attitudes over a broad range of biology courses. *CBE-Life Sciences Education*, *6*(1), 29-41. *Supplemental* Allen, D. & Tanner, K. (2005). Infusing active learning into the large-enrollment biology class: Seven strategies, from simple to complex. *Cell Biology Education, 4*, 262-68. Halgin, R.P., & Overtree, C.E. (2002). Personalizing the large class in psychology. In C.A. Stanley & M.E. Porters (eds), Engaging large classes: Strategies and techniques for college faculty (pp. 290-8). Boston, MA: Anker. Race, P. (2014). Lectures in the digital age. In *The lecturer's toolkit: a practical guide to assessment, learning and teaching* (pp. 132-163). New York: Routledge. Wilson, K., & Korn, J. H. (2007). Attention during lectures: Beyond ten minutes. *Teaching of Psychology*, *34*(2), 85-89.
Week 10	***How do I teach a small class?*** Leading productive seminar discussions and lab sections Guest discussant: Psychology faculty member?	Bachiochi, P., Everton, W., Evans, M., Fugere, M., Escoto, C., Letterman, M., & Leszczynski, J. (2011). Using empirical article analysis to assess research methods courses. *Teaching of Psychology*, *38*(1), 5-9. Curzan, A., & Damour, L. (2006). Running a discussion. In *First day to final grade: A graduate student's guide to teaching*. Ann Arbor, MI: University of Michigan Press. Koenig, K. M., Endorf, R. J., & Braun, G. A. (2007). Effectiveness of different tutorial recitation teaching

		methods and its implications for TA training. *Physical Review Special Topics-Physics Education Research*, *3*(1), 010104. *Supplemental* Nilson, L. B. (2016). Leading effective discussions. In *Teaching at its best: A research-based resource for college instructors*. New York: John Wiley & Sons.
Week 11	***How do I improve my teaching?*** Scientific teaching, self-assessment, and reflection	Allen, D., & Tanner, K. (2005). Approaches to biology teaching and learning: from a scholarly approach to teaching to the scholarship of teaching. *Cell biology education*, *4*(1), 1-6. Kreber, C. (2002). Teaching excellence, teaching expertise, and the scholarship of teaching. *Innovative higher education*, *27*(1), 5-23. Richardson, M. O. (2000). Peer observation: Learning from one another. *Thought and Action*, *16*(1), 9-20. *Supplemental* Batzli, J. M., Ebert-May, D., & Hodder, J. (2006). Bridging the pathway from instruction to research. *Frontiers in Ecology and the Environment*, *4*(2), 105-107. Al-Qahtani, A. A., & Higgins, S. E. (2013). Effects of traditional, blended and e-learning on students' achievement in higher education. *Journal of computer assisted learning*, *29*(3), 220-234. Kirkwood, A., & Price, L. (2014). Technology-enhanced learning and teaching in higher education: what is 'enhanced' and how do we know? A critical literature review. *Learning, media and technology*, *39*(1), 6-36.
Week 12	***What have we learned?*** Teaching demonstrations and feedback	

Week 13	***Where do we go from here?*** Teaching demonstrations and feedback continued. Wrap-up.	*Supplemental* Dikker, S., Wan, L., Davidesco, I., Kaggen, L., Oostrik, M., McClintock, J., ... & Poeppel, D. (2017). Brain-to-brain synchrony tracks real-world dynamic group interactions in the classroom. *Current Biology*, *27*(9), 1375-1380. Stockwell, B. R., Stockwell, M. S., Cennamo, M., & Jiang, E. (2015). Blended learning improves science education. *Cell*, *162*(5), 933-936. Romero, C., & Ventura, S. (2013). Data mining in education. *Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery*, *3*(1), 12-27. Wieman, C., Perkins, K., & Gilbert, S. (2010). Transforming science education at large research universities: A case study in progress. *Change: The Magazine of Higher Learning*, *42*(2), 6-14.

Course Components:

The goal for this course is really to give graduate students – especially students in their first year – the chance to get together as a group and share experiences. Our focus will be scientific teaching, of course, but the goal will be to get to know each other and members of our department and to get acquainted with some of the research being done in our department and how it can be applied to education. Readings are designed to facilitate thoughtful class discussions, and assignments are structured to provide you with the opportunity to practice your teaching in a supportive setting.

Class preparation and participation: The assigned readings are designed to expand your knowledge of scientific teaching and to ask you to think critically about your own teaching process. The topics we'll discuss this semester will be important to your work as Teaching Assistants in graduate school and to any teaching-related activities you pursue outside or after graduate school. Your strong preparation will enable us to have thought-provoking discussions. I do understand that for some people participating regularly in class discussions can be difficult. Those students who might be concerned about their ability to contribute to class discussions should see me. In such cases, we might be able to work out a way for you to participate thoughtfully through reading responses. I don't want this course to be overly burdensome in terms of time commitment, so you will be asked to read only two-three short articles each week; additional readings will be entirely optional.

Leading discussions: You'll be responsible for presenting an article and leading the class discussion for at least two class meetings. The goal of this exercise is to give you practice in leading discussions and lab sections of your own. You'll briefly lead us through one of the

assigned articles, describing methods and results, highlighting any strengths and weaknesses of the study design, and giving your thoughts on the meaning and importance of the findings. But the focus will really be on leading a discussion among your peers, so you'll want to prepare discussion questions, in-class activities, or other ways of engaging your "students."

Teaching demonstrations: A primary of goal of the Practicum is to prepare you to teach. Toward that end, you will have several opportunities to demonstrate your teaching and to receive feedback from your peers. Throughout the course, we'll have "ten-minute teaching" opportunities, during which you'll have a chance to teach us anything you'd like in seven minutes, with three minutes for discussion. The last three sessions of the course will be devoted to more in-depth teaching, in which you'll have a longer time period in which to teach us about your own research or an important concept in your field. These are opportunities to practice your teaching in front of a friendly and supportive audience.

Teaching observations: Ongoing feedback is essential to the practice of scientific teaching. You'll be asked to provide structured feedback to your peers on their teaching demonstrations throughout the course. We'll first ask the person giving the demonstration what they'd like feedback on, and then we'll write up short evaluations focusing on those particular areas and more broadly on things like clarity, organization, engagement, etc. Peer observations are designed to be supportive, low-stress and low-stakes opportunities to work together with colleagues on your teaching practice.

Class policies:
Academic integrity: As members of this academic community, we are responsible for maintaining the highest level of personal and academic integrity: "[E]ach one of us bears the responsibility to participate in scholarly discourse and research in a manner characterized by intellectual honesty and scholarly integrity.... The exchange of ideas relies upon a mutual trust that sources, opinions, facts, and insights will be properly noted and carefully credited. In practical terms, this means that, as students, you must be responsible for the full citations of others' ideas in all of your research papers and projects... [and] you must always submit your own work and not that of another student, scholar, or internet agent" (from the Columbia University Faculty Statement on Academic Integrity: https://www.college.columbia.edu/faculty/resourcesforinstructors/academicintegrity/statement).

Attendance: Class participation is the foundation of this course. Of course, there are times when life gets in the way of things, but more than one absence will be detrimental to your learning.

Class Etiquette: Research shows that many of us think we're good multi-taskers. Research also shows that most of us are not. If you typically take notes or read papers on a laptop, you can, of course, use the laptop in class. But, out of respect for your classmates and in the interest of your own learning and ability to actively participate in class discussions, please refrain from using your laptop inappropriately.

Students with Disabilities: Students with special needs who may require classroom/assignment accommodations should make an appointment with me before or during the first week of class. You should also contact the Office of Disability Services (ODS) in Lerner Hall before the start of the course to register for these accommodations. The procedures for registering with ODS can be found at http://health.columbia.edu/services/ods or by calling (212) 854-2388.

Syllabus is subject to revision. Updates will be posted on CourseWorks.