ADVANCED TRAINING FOR CAREERS IN PSYCHOLOGICAL SCIENCE

PSYCH-GA.3404

FALL 2021 | Friday 2-4pm| Meyer 465

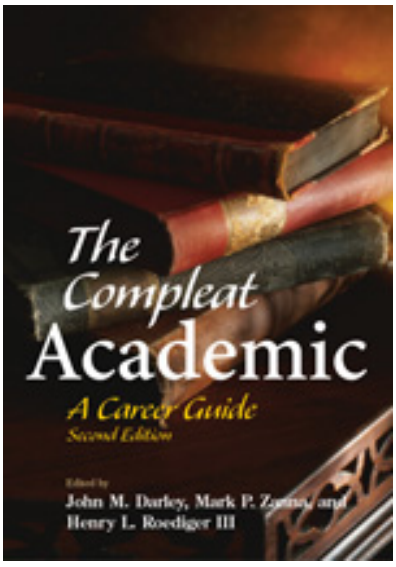
Instructor: Dr. Tessa West
E-mail: tessa.west@nyu.edu
Phone: 212-998-7811
Office: Room , 6 Washington Place
Office Hours: By appointment
Twitter: @TessawestNYU

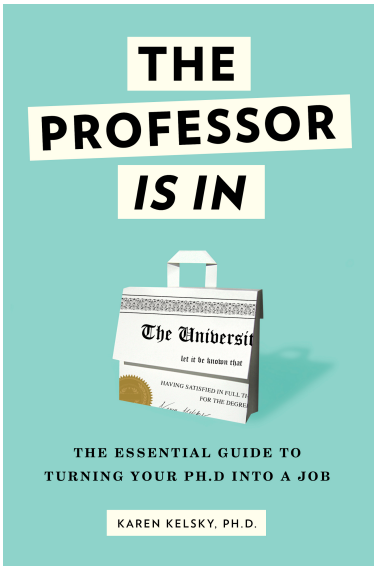
Instructor: Dr. Jay J. Van Bavel
E-mail: jay.vanbavel@nyu.edu
Phone: 212-992-9627
Office: Room 526, 6 Washington Place
Office Hours: By appointment
Twitter: @jayvanbavel

Course Website: available on NYU Brightspace (via your NYU Home account)

Readings: You are responsible for the assigned readings each week (not the additional readings). Most of them will be available on the course website. All journal articles will be posted on the course web site. However, you should buy a copy of The Compleat Academic ($32 new on Amazon.com). The other books are highly recommended reference books for professional issues (e.g., doing high impact research and navigating professional issues).

Darley, J. M., Zanna, M. P., & Roediger, H. L. (2003). *The compleat academic: A career guide*. American Psychological Association: Washington, DC.





Course Description

The goal of this course is to provide hands-on methodological and professional training for psychology PhD students who are interested in a career in psychological science. Although the course is largely focused on academic careers, we will also discuss non-academic career options in psychological science. We will cover skills and requirements for a career in psychology that complement the depth and breadth requirements of the PhD program. The course will include but will not be limited to the following topics: advanced methods, professional ethics, scientific writing, grant writing, reviewing papers, and writing personal statements. Although the course is focused on the best practices underlying the production of rigorous and impactful scientific discoveries, it will require students to produce concrete materials that should help advance their careers as scientists. We will provide concrete feedback on these materials throughout the course.

Course format and grades

Participation (10%): Each student is expected to read the assigned articles each week and participate in discussion of those readings during the class meeting. Students are graded on their ability to understand and integrate the material. We are especially interested in your ability to add to the dialogue, such as by building on a discussion, thinking critically about the materials, or challenging an expressed view. In addition to critical perspectives on the course material, we are looking for evidence that you understand the historical and contemporary value of the discussed work in the broader literature. You will also be graded on your contribution to your classmates.

Leading discussion (10%): Each student will serve as a discussion leader for one class meeting. Each week, the discussion leaders will solicit questions from every student in the class and present them to Tessa and Jay during class. Discussion leaders will identify core themes in the questions and distribute a list of the most important questions to the class at least 24 hours before the class meeting. The questions can focus on articles or themes that connect the articles or expand upon them.

Job Search Evaluation (20%): You are expected to read at least one paper from each job candidate we interview, attend job talks, meet the candidates (when possible) and ask at least one challenging question of candidates during their interviews (ideally after their job talk). You are then expected to write a 250 word summary of each job candidate and rate the *robustness* and *innovation* of their research along with noting any other aspects they think are relevant to hiring (e.g., teaching and mentoring potential, unique methodological skills, etc). Evaluations are due at the first class immediately after the job candidate visits our department and these will be discussed in class (be ready to justify your evaluations to the class). (Due dates will be determined once we book job talk dates)

CV/BioSketch (10%): The success of the job search and grant application process

often depends on the capacity of the scientist. To signal that you are well qualified for positions and funding you will need to have a CV that highlights proof of your research expertise. For this assignment, we would like you to provide your CV (no word limit). We will workshop these in class.

Research Statement (20%): When you apply for an academic job, you need to include a research statement in your materials. For this assignment, you should write up your research statement, no more than 1000 words (the common length for job applications). We will workshop these in class.

Mock Review (10%): You will review a paper that was submitted for publication (we will provide this paper). You will provide a detailed review of all of the studies in the paper, along with a recommended editorial decision. We will grade you based on the quality of your review (not on how positive or negative you are about the paper).

Grant Letter of Intent (20%): In addition to generating important scientific questions, part of the challenge of grant-writing is writing letter of intents. Grant agencies use these letters as a "first pass" to solicit full proposals. In some cases, it is useful to contact program officers directly and then send them a one-pager to gauge interest in your work. For this assignment, find at least one funding agency (e.g., NIH, NSF, SPSSI, APS, APA) and write a letter of intent. The letter should include "broad strokes" paragraphs that emphasize the overarching research ideas and why they are important and relevant to the agency's funding mission, and about 3 bullet-point aims. Make sure you emphasize what is new and innovative about the proposed project, how it will move science forward, etc. No more than 1500 words.

Late assignments will be deducted 5% for every day they are late. Please contact us at least a week before the due date if you require an extension due to an anticipated conflict or delay.

GRADING SCHEME

Participation	10 points
Leading Discussion	10 points
Job Search Evaluation	20 points
CV/Biosketch	10 points
Research Statement	20 points
Mock Review	10 points
Grant Letter of Intent	20 points
Total	**100 points**

A	93-100	C+	77-79
A-	90-92	C	73-76
B+	87-89	C-	70-72
B	83-86	D+	67-69
B-	80-82	D	60-66

F <59

If you have questions or concerns about your grades you should meet with either instructor after class to discuss them.

Topic and Assignment Schedule

Calendar At a Glance

Date	Topic
Sept. 3	**Welcome and overview**
Sept. 10	**The Job Search Process (academic vs. non-academic)**
Sept. 17	**Building a Research Program I (workshopping CVs)** ***CVs are due***
Sept. 24	**Building a Research Program II (workshopping statements)** ***Research statements due***
Oct. 1	**The Peer Review Process (*finding a fit for my work + writing a good review)***
Oct. 8	**NO CLASS due to FALL BREAK & SESP.** Watch*"Naturally Obsessed: The making of a scientist"*
Oct. 15	**The New Statistics & Scientific Writing** ***Mock Reviews are due***
Oct. 22	**Disseminating Research**
Oct. 29	**Building Ethical Practices Into a Lab**
Nov. 5	**Collaboration and professionalism**
Nov. 12	**Starting a Lab**
Nov. 19	**Teaching & Mentoring**
Nov. 26	***NO CLASS due to Thanksgiving Break :)***
Dec. 3	**Managing a Career**
Dec. 10	**Grant Writing** ***Grant Letter of Intent is due***

Welcome and overview

Morgeson, F. P., Seligman, M. E. P., Sternberg, R. J., Taylor, S. E., & Manning, C. M. (1999). Lessons learned from a life in psychological science: Implications for young scientists. *American Psychologist, 54,* 106-116.

Lawrence, P. A. (2007). The mismeasurement of science. *Current Biology, 17*, R583-585.

Van Bavel, J. J., Cunningham, W. A., Somerville, L., & Lewis, N. A. Jr. (2020). How to navigate conflict with your research advisor. *Science*.

A number of useful resources for graduate students on writing, conducting research, and achieving career success: http://psych-your-mind.blogspot.com/2014/02/pyms-graduate-student-guide-blog.html

Additional reading

Cacioppo, J. T. (2007). Psychology is a hub science. *Observer, 20,* 5 & 42.

Cacioppo, J. T. (2007). Better interdisciplinary research through psychological science. *Observer, 20,* 3 & 48-49.

Cacioppo, J. T. (2007). The structure of psychology. *Observer, 20,* 3 & 50-51.

Cacioppo, J. T., Semin, G. R., & Berntson, G. G. (2004). Realism, instrumentalism, and scientific symbiosis: Psychological theory as a search for truth and the discovery of solutions. *American Psychologist, 59,* 214-223.

McGuire, W. J. (2013). An additional future for psychological science. *Perspectives on Psychological Science, 8,* 414-423.

The Job Search Process (visit from Diego Reinero)

Ferguson, M. A., & Crandall, C. S. (2010). Trends in graduate training in social psychology: Training social psychology's trainers. *Basic and Applied Social Psychology, 29,* 311-322.

Reinero, D. A. (2019). The path to professorship by the numbers and why mentorship matters. *Behavioural and Social Sciences.*

Somerville, L. H., Van Bavel, J. J., Cunningham, W. A., & Lewis, N. A. Jr. (2020). How to find a postdoc position that's right for you. *Science*.

Van Bavel, J. J., Lewis, N, A, Jr., & Cunningham, W. A. (2019). In the tough academic job market, two principles can help you maximize your chances. *Science*.

Somerville, L. H., Van Bavel, J. J., Cunningham, W. A., & Gruber, J. (2018). How to put your best foot forward in faculty job interviews. *Science*.

Additional reading

Kyllonen, P. (2004). Broadening the job search: Jobs outside of academia. In J. M. Darley, M. P. Zanna, & H. L. Roediger III (Eds.), *The Compleat Academic: A Career Guide*. Washington DC: American Psychological Association.

McDermott, K., & Braver, T. S. (2004). After graduate school: A faculty position of a postdoctoral fellow? In J. M. Darley, M. P. Zanna, & H. L. Roediger III (Eds.), *The Compleat Academic: A Career Guide*. Washington DC: American Psychological Association.

Darley, J. M., & Zanna, M. P. (2004). The hiring process in academia. In J. M. Darley, M. P. Zanna, & H. L. Roediger III (Eds.), *The Compleat Academic: A Career Guide*. Washington DC: American Psychological Association.

Warner, J., & Clauset., A. (2015). The academy's dirty little secret. *Slate*.

Building a research program I and II

Lord, C. G. (2004). A guide to PhD graduate school: How they keep score in the big leagues. In J. M. Darley, M. P. Zanna, & H. L. Roediger III (Eds.), *The Compleat Academic: A Career Guide*. Washington DC: American Psychological Association.

Van Bavel, J. J., Gruber, J., Somerville, & Lewis, N. A. Jr. (2020). How to write a clear, compelling CV. *Science*.

Lewis, N. A. Jr., Gruber, J., Van Bavel, J. J., & Somerville, L. H. (*2019*). Three tips for giving a great research talk. *Science*.

Sample research statements

Additional reading

Davis, M. (1971). That's interesting: Towards a phenomenology of sociology and a sociology of phenomenology. *Philosophy of the Social Sciences, 1*, 309-344.

Nisbett, R. E. (1990). The anticreativity letters: Advice from a senior tempter.

McGuire, W. J. (1997). Creative hypothesis generating in psychology. *Annual Review of Psychology, 48*, 1-30.

Van Lange, P. A. M. (2012). What we should expect from theories in social psychology: Truth, abstraction, profess, and applicability as standards (TAPAS). *Personality and Social Psychology Review, 17,* 40-55.

The Peer Review Process

Peer review: The nuts and bolts

Read articles for peer review

Raff (2003). How to become good at peer review: A guide for young scientists.

Hilten. (2015). 3 tips for responding to reviewer comments on your manuscript

Rusk, N. (2013). How to write a rebuttal letter. *Nature Methods*.

The New Statistics & Scientific Writing

Cumming, G. (2014). The new statistics: Why and how. *Psychological Science, 1, 7-29*.

Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2012). A 21-word solution. *SPSP Dialogue*.

Lindsay, S. D. (2017). Preregistered direct replications in Psychological Science. *Psychological Science*.

Van Bavel, J. J., & Gruber, J. (2019). Struggling with your academic writing? Try these experiments to get the words flowing. *Science*.

Additional reading

Crandall, Leach, Robinson & West (2017). PSPB Editorial

Silvia, P. J. (2007). *How to write a lot: A practical guide to productive academic writing*. Washington, DC: APA.

Pinker, S. (2014). The sense of style: The thinking person's guide to writing in the

21st century.

Multiple authors. (2015). How to get published in an academic journal: Top tips from editors. *The Guardian*.

Schimmack, U. (2012). The ironic effect of significant results on the credibility of multiple-study articles. *Psychological Methods, 17,* 551-566.

Disseminating research

Bourne, P. E. (2005). Ten simple rules for getting published. *PLoS ONE Computational Biology,* 1, e57.

Gargouri et al., (2010). Self-selected or mandated, open access increases citation impact for higher quality research. *PLoS ONE*.

Sumner, P. et al. (2014). The association between exaggeration in health related science news and academic press releases: Retrospective observational study. *BML, 349,* 7015.

Lewis, N. A. Jr., Van Bavel, J. J., Somerville, L. H., & Gruber, J. (2018). A social media survival guide for scientists. *Science*.

Additional reading

Gernsbacher, M. A. (2018). Writing empirical articles: Transparency, reproducibility, clarity, and memorability. *Advances in Methods and Practices in Psychological Science*.

Hamblin, J. (2014). The point when science becomes publicity. *The Atlantic*.

You suck at powerpoint: 5 shocking design mistakes you need to avoid.

Here is a great resource for presenting your research: *TED Talks: The official TED Guide to Public Speaking*

Gentil-Boccot, Mele, & Brooks (2009). Citing and reading behaviours in high-energy physics. How a community stopped worrying about journals and learned to love repositories. *arXiv.*

Building Ethical Practices Into a Lab

Lee, S. M. (2018). Here's how Cornell scientist Brian Wansink turned shoddy data

into viral studies about how we eat. *Buzzfeed*.

Cunningham, W. A., Van Bavel, J. J., Somerville, L. (2020). How to be an ethical scientist. *Science*.

Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2011). False-positive psychology: Undisclosed flexibility in data collection and analysis allows presenting anything as significant. *Psychological Science*.

Funder, D. C., Levine, J. M., Mackie, D. M., Morf, C., Sansone, C., Vazire, S., & West, S. G. (2014). Improving the dependability of research in personality and social psychology: Recommendations for research and educational practice. *Personality and Social Psychology Review, 18,* 3-12.

Finkel, E. J., Eastwick, P. A., & Reis, H. T. (2015). Best research practices in psychology: Illustrating epistemological and pragmatic considerations with the case of relationship science. *Journal of Personality and Social Psychology, 108,* 275-297.

Additional reading

John, L. K., Loewenstein, G., & Prelec, D. (2012). Measuring the prevalence of questionable research practices with incentives for truth telling. *Psychological Science, 23*, 524-532.

Kerr, N. (1998). "HARKIN": Hypotheses after the results are in. *Personality and Social Psychology Review, 2*, 196-217.

Nosek, B. A., & Bar-Anan, Y. (2012). Scientific utopia I: Opening scientific communication. *Psychological Inquiry, 217-243.*

Nosek, B. A., & Bar-Anan, Y. (2012). Scientific utopia II: Restructuring incentives and practices to promote truth over publishability. *Psychological Inquiry, 7, 615-631.*

Spellman, B. (2015). A short (personal) future history of revolution 2.0. Perspectives on Psychological Science, 10, 886-899.

Collaboration & professionalism

Cunningham, W. A., Van Bavel, J. J., Lewis, N. A. Jr. & Gruber, J. (2021). Science relies on criticism, here is how to keep it useful and respectful. *Science*.

See the APA Authorship Determination Scorecard as a concrete tool for

determining authorship

Capaldi, E. D. (2004). Power, politics, and survival in academia. In J. M. Darley, M. P. Zanna, & H. L. Roediger III (Eds.), *The Compleat Academic: A Career Guide*. Washington DC: American Psychological Association.

Additional reading

APA Science Student Council. (2006). A student's guide to determining authorship credit and authorship order.

Cacioppo, J. T. (2007). The rise in collaborative psychological science. *Observer, 20,* 3 & 52.

Fine, M. A. & Kurdek, L. (1993). Reflections on determining authorship credit and authorship order on faculty-student collaboration. *American Psychologist, 11*, 1141-1147.

Wuchty, S., Jones, B.F., & Uzzi, B. (2007). The increasing dominance of teams in production of knowledge. *Science, 316*, 1036-1039.

Starting a lab

Somerville, L. H., Cunningham, W. A., Gruber, J., Van Bavel, J. J., & Lewis, N. A. Jr. (2019). Three keys to launching your own lab. *Science*.

Cunningham, W. A., Gruber, J., Van Bavel, J. J., & Lewis, N. A. Jr. (2019). Conflict in your research group? Here are four strategies for finding a resolution. *Science*.

Webb., S. A. (2009). Starting an academic lab. *Science*.

Gould, J. (2015). The postdoc series: Setting up your own lab. *Nature*.

Additional reading

Penner, L. A., Dovidio, J. F., & Schroeder, D. A. (2004). Managing the department chair and navigating the department power structure. In J. M. Darley, M. P. Zanna, & H. L. Roediger III (Eds.), *The Compleat Academic: A Career Guide*. Washington DC: American Psychological Association.

Best, D. (2004). Varieties of college and university experiences. In J. M. Darley, M. P. Zanna, & H. L. Roediger III (Eds.), *The Compleat Academic: A Career Guide*. Washington DC: American Psychological Association.

Nagpal, R. (2013). The awesomest 7-year postdoc or: How I learned to stop worrying and love the tenure-track faculty life. *Scientific American*.

Zacks, J. M. & Roediger, H. L. III (2004). Setting up your lab and beginning a program of research. In J. M. Darley, M. P. Zanna, & H. L. Roediger III (Eds.), *The Compleat Academic: A Career Guide*. Washington DC: American Psychological Association.

Teaching & Mentoring

Van Bavel, J. J., Gruber, J., Somerville, L. H., & Lewis, N. A. Jr. (2019). Three research-based lessons to improve mentoring.

Bernstein, D. A. & Lucas, S. G. (2004). Tips for effective teaching. In J. M. Darley, M. P. Zanna, & H. L. Roediger III (Eds.), *The Compleat Academic: A Career Guide*. Washington DC: American Psychological Association.

Zanna, M. P., & Darley, J. M. (2004). Mentoring: Managing the faculty-graduate student relationship. In J. M. Darley, M. P. Zanna, & H. L. Roediger III (Eds.), *The Compleat Academic: A Career Guide*. Washington DC: American Psychological Association.

Managing a Career

Carroll, S. (2011). How to get tenure at a major research university. *Discover*.

Taylor, S. E., & Martin, J. (2004). The academic marathon: Controlling one's career. In J. M. Darley, M. P. Zanna, & H. L. Roediger III (Eds.), *The Compleat Academic: A Career Guide*. Washington DC: American Psychological Association.

Roediger, H. L. III., Balota, D. A. (2004). Managing your career: The long view. In J. M. Darley, M. P. Zanna, & H. L. Roediger III (Eds.), *The Compleat Academic: A Career Guide*. Washington DC: American Psychological Association.

Grant writing

Bourne, P. E. & Chalupa, L. M. (2006). Ten simple rules for getting grants. *PLoS ONE Computational Biology,* 2, e12.

Porter, R. (2007). Why academics have a hard time writing good grant proposals. *Journal of Research Administration, 38,* 37.

Powell, K. (2017). The best-kept secrets to winning grants. *Nature*.

Steinberg, J. (2004). Obtaining a research grant: The applicants view. In J. M. Darley, M. P. Zanna, & H. L. Roediger III (Eds.), *The Compleat Academic: A Career Guide*. Washington DC: American Psychological Association.

MOVIE DAY! "*Naturally Obsessed: The making of a scientist*"

Jay and Tessa are gone this week. Please use class time to watch the PBS documentary *"Naturally Obsessed: The Making of a Scientist"*. This documentary delves into the lab of professor Dr. Lawrence Shapiro, and follows three irrepressible graduate students on their determined pursuit of a PhD and scientific success. As if the pressure of scientific discovery isn't enough, the students are also competing in a worldwide race to be the first to publish their findings. Their road to success: years of trial and error, unflinching dedication, rock-climbing, rumors of pickle juice, and the music of The Flaming Lips. Although the research is outside psychology, many of the lessons are the same. We will discuss the following week.

Course website

Log in and you should see this course. If you don't, please let us know. Readings, grades, assignments and handouts will be posted on the website if they are not already directly linked to the syllabus. There is also a discussion board for questions. If you have a question you can email, or post it online. If several people email a similar question we will post it on the website. Please treat the website as a collective resource to ask questions of common interest and share ideas with one another. If you have a dispute or concern with another member of the class, please email us directly and do not try to deal with it on the course website.

Academic Conduct

All work must be your own. Cheating or plagiarism will be reported through official university channels, and the consequences will be severe. If you are unwise enough to plagiarize, the minimum punishment is usually failure in the course. If the case of plagiarism or cheating is especially blatant, you may be expelled from the university. The papers and assignments are designed for what you can do based on what we are covering in this class and the skills you have already learned. If you are unsure if an action constitutes academic misconduct, please email us before the assignment is due and/or review NYU's and CAS' academic integrity policies (here & here).

Accomodation

Disability Disclosure Statement: Academic accommodations are available for students with disabilities. The Moses Center website is www.nyu.edu/csd. Please contact the Moses Center for Student Accessibility (212-998-4980 or mosescsd@nyu.edu) for further information. Students who are requesting academic accommodations are advised to reach out to the Moses Center as early as possible in the semester for assistance. We will work with the Moses Center to administer exams and ensure other educational activities are accessible.

Wellness Services
NYU offers a rigorous academic environment, devoted to scholarship, teaching, and learning. NYU's approach to the health of our students is one of "wellness": supporting students in all aspects of their lives in order to enable them to achieve academic success. However, the demands of academic life, coupled with work, family, community, and personal responsibilities can create a stressful environment for students. As such, NYU offers an extensive network of physical and mental health resources here as well as a 24/7 hotline (**212-443-9999).** Please use these resources if you need additional support outside the classroom (unfortunately our staff is not equipped to help with these issues, but we are happy to direct you to these resources when necessary).

Diversity and Constructive Disagreement
This class requires and supports a diversity of backgrounds and perspectives and respectful, critical inquiry through the free exchange of ideas. The following principles will guide discussions:

- Treat every member of the class with respect, even if you disagree with their opinion
- All backgrounds and viewpoints are welcome as long as they are respectful
- Science is an evolving process, and no ideas are immune from scrutiny in the classroom (including any ideas presented by the professor)
- But please try to bring light, not heat, to any discussion
- Please allow time and space for other people to contribute to the discussion
- Reasonable people can differ on a number of perspectives and conclusions
- Because diverse perspectives and constructive disagreement sharpens thinking, deepens understanding, and reveals novel insights, it is encouraged
- No harassment of staff or students will be tolerated.

Course Withdrawal
To learn how to withdraw from this course go to this website