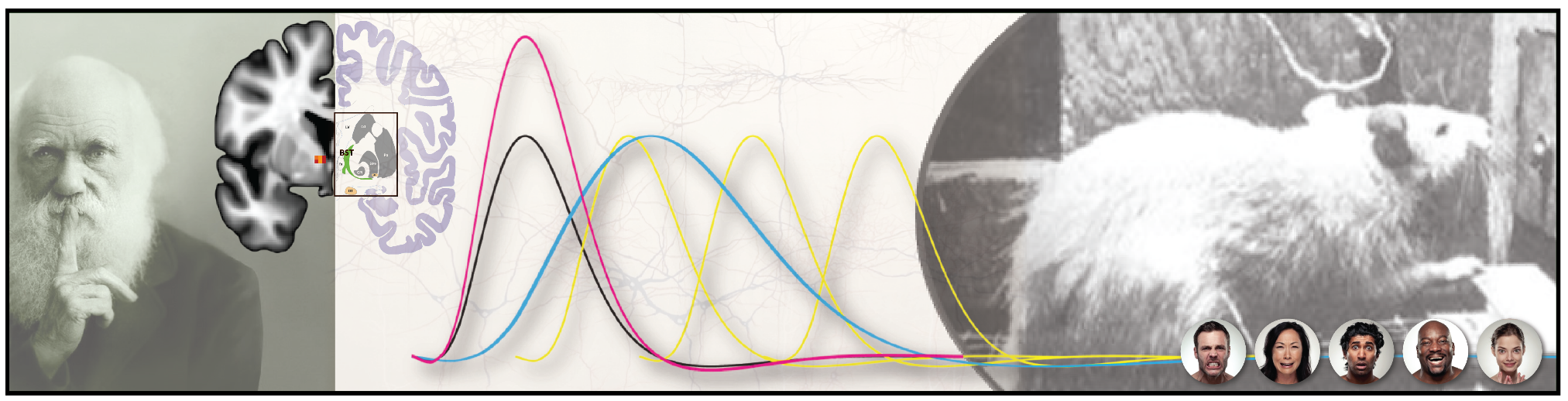
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**PSYCHOLOGY/NACS 612:**

***Affective Science Perspectives on Temperament & Personality (t&p)***

**a graduate-level seminar on Developmental origins, neurogenetic bases, and implications for psychopathology**

**professor alex shackman, uNIVERSITY OF MARYLAND**

**fall 2018**

In this graduate seminar, students will learn about the current state of our scientific knowledge about the major dimensions of temperament and personality (T&P), their neurogenetic bases, and the implications for understanding psychopathology and other important outcomes. Students will also learn about some of the key behavioral and physiological techniques used for measuring and understanding facets of T&P. But we will not systematically review the history of personality research (e.g., Galen, Freud, Jung).

As several leading researchers recently noted—

*Personality psychology has long been identified in the minds of many people with the first (and perhaps only) course in the subject that they took in college. Too often, this was (and sometimes still is) the classic “tour of the graveyard” that focuses on brilliant but long-deceased theorists and leads students to end the semester thinking the burning concern of the field is the disagreement between Freud and Jung…A course that is restricted to theorists like these is an unforgivable misrepresentation of the field, a failure in one’s duty to educate students, and a slap in the face to every contemporary personality researcher*

*It is unacceptable that personality psychology remains, generally, a side trip through the history of psychology while the rest of the science of psychology is presented to students through the lens of the most cutting-edge research.*

—Benet-Martínez, Donnellan, Fleeson, Fraley, Gosling, King, Robins, & Funder (APA *Handbook of Personality and Social Psychol*, 2015)

In general, my emphasis will be on a multi-disciplinary perspective, in which research at different levels of analysis, using different tools, samples, or species, is viewed as complementary and mutually informative. Put another way, the class will not be organized around “biological theories,” “psychoanalytic theories,” and so on.

**ADMINISTRATIVE INFORMATION**

* **Monday 9:00-11:45 AM in BPS 1234**
* **Instructor:** Dr.Alex Shackman ([shackman@umd.edu](mailto:shackman@umd.edu); 1147D BPS)
* **Teaching Assistant:** n/a
* **Required Materials**
  + **Textbooks**: n/a
  + **Technology**: n/a
  + **Readings:** Available in .pdf format via Canvas ([www.elms.umd.edu](http://www.elms.umd.edu))
* **Class cancellation, room change, or other time-sensitive announcements:** Will be directed to the email account listed in Canvas
* **Academic Calendar:** [**http://www.provost.umd.edu/calendar/**](http://www.provost.umd.edu/calendar/)
* **Office Hours**
  + Dr. Shackman: By appointment

**learning objectives**

Students who successfully complete PSYC 612 will be able to demonstrate a thorough understanding of:

* **Major structural models of T&P** (e.g., Big 5/OCEAN, BIS/BAS)
* **Relevant statistical and psychometric tools and concepts** (e.g., factor analysis, meta-analysis, test-retest stability)
* **Key behavioral and biological approaches** (e.g., BART, EEfRT, EEG/ERP, excitotoxic lesions, EMA/ESM, GWAS, neuroimaging, psychophysiology)
* **Brain systems implicated in T&P** (e.g., extended amygdala, HPA axis, medial forebrain bundle, mesocorticolimbic dopamine system, OFC)
* **Lessons learned from neuropsychological patients** (B-19, EVR, SM, and Phineas Gage)
* **Relations between T&P and mental illness** (addiction, anxiety, and depression), including diagnostic criteria and epidemiology
* **Implications of T&P for health, wealth, and public policy**

course structure

1. Classroom Lectures on the Scientific Study of T&P

You are *strongly* encouraged to attend all course lectures. We have so much interesting material to cover and preciously little time together, so class will begin promptly at 9 AM. Each meeting will be organized around two 75-minute modules with a 15 minute break from 10:15 to 10:30 AM. Each 75-minute module will typically include the following components:

1. Conceptual roadmap outlining the new topics to be covered
2. The science of T&P drawn from your readings and other sources. The lectures will incorporate occasional multimedia elements, such as film clips. There will be plenty of time for questions and discussion. The lectures are designed to provide a broad overview of the core conceptual themes, methodological issues, and highlights from the recent empirical record.
3. Recap of the most important take-home points

**It is critical that you regularly attend class in order to do well in this course**

* I encourage you take notes during class to ensure comprehension of the material. It is important to emphasize that there are many opportunities for us to learn from one another in the classroom. Learning can stem from sharing knowledge or from asking questions.

**Electronic Devices (phones, tablets, computers) are not permitted during our classroom meetings**

* Exceptions for DSS accommodations and Clicker quizzes/surveys
* Research indicates that such devices present an irresistible distraction and interfere with learning and active participation

**The Learning Objectives file available on Canvas provides a powerful tool to guide your independent study and review**

* I strongly recommend using the Learning Objectives to guide your test preparation.
* They also provide an excellent means of identifying the most crucial pieces of information in each lecture. I strongly recommend bringing a hardcopy to each class meeting, and using it as a framework for your own notetaking

**As an instructor, one of my central goals, is to create a safe, welcoming, and respectful environment for students of different genders, races, ethnicities, sexual orientations, socioeconomic groups, political parties, and religious and educational backgrounds.**

* UMD is one of the nation’s most diverse campuses (<https://tinyurl.com/UMDDiversity2018>).
* Students of color comprise ~40% of all undergraduates.
* Many students are first-generation Americans or first-generation college students, and many transferred from smaller schools around the state (as did my own parents). Some of you hail from ‘liberal’ urban areas (like my father’s family), and others come from more conservative, traditional, or rural backgrounds (like my mother’s).
* I will treat all of you equally, without distinction, and do my best to foster an inclusive learning environment.

**The course is designed to promote thoughtful conversation and active student engagement—inside and outside the classroom**

* We’ll begin the semester with a roundtable discussion and most of the lecture modules are peppered with explicit prompts (‘Students: What do \*you\* think’) and group discussion activities (e.g., ‘pair-n-share’).
* Given the sheer number of students and the preciously small amount of time that we have together, on occasion, I may need to redirect or pause the dialogue.
* Please don’t mistake the necessities of time management for a lack of respect or interest. I’m interested in what you have to say and what you think. Please take advantage of other opportunities for continuing our conversation outside the classroom, whether that be via email, office hours, or participating in the optional ‘Snack with Shack, Man.’

**I know that many of you have first-hand experience with adversity, trauma, and mental illness, and you should be aware that our classroom discussions will occasionally touch on these potentially sensitive issues.**

* Please do not hesitate to contact me with any concerns or suggestions. I am more than happy to work with you to create the best possible environment for learning about temperament and personality.

2. Background Readings

Readings for this course have been hand-picked by the instructor; many are empirical papers or reviews by leading scientists in the field. What better way is there to learn about T&P then straight from the most exciting researchers working in the field today?

To get the most out of this course, it is important that you understand the key take-home points from the readings

1. **Please read the assigned papers before class (available on Canvas)**
   * This will allow for a better understanding of the lecture and also give you the opportunity to ask questions
2. **Please do not hesitate to ask questions about anything you found confusing or challenging!**
3. **Please focus on the larger take-home points and implications, not the more technical material**
4. A helpful guide to deciphering the papers is provided later in the syllabus and is also available on Canvas.

My aim is to avoid overburdening students with reading. But in some cases, you may find yourself hungry to learn more. The optional readings posted on Canvas are a great place to start. The source material for the lectures is also cited within my slides and I am happy to provide the papers upon request.

# course REQUIREMENTS & GRADING

### 1. Three Cumulative Examinations (10%, 20%, and 30%; Total: 60%)

**Three cumulative exams: 2 mid-terms and a final examination.**

* The first exam is worth 10%, the second exam is worth 20%, and the final exam is worth 30% of the total grade
* Exams will consist of multiple-choice questions that involve critical thinking about concepts drawn from the lectures *as well as the readings*
* It is important to emphasize that much of what is covered in the exams is not contained verbatim in the lecture slides, so attendance and attention during class is absolutely critical to your success in the course.

**You are welcome to bring a single index card of notes to exams**

* 3” x 5” or smaller
* Double sided is OK
* Notes may be handwritten, printed, or photocopied. No other notes, notebooks, materials, or devices will be permitted.

The purpose of the exams is two-fold

* First, you should be able to demonstrate that you have read the material and understand the factual points and arguments
* Second, you should be able to synthesize and integrate the material such that this knowledge can be applied in a broader context
* Because the exams are cumulative and occur on a regular basis, you will need to continuously study in order to be successful. On the other hand, you probably will not need to cram for any particular exam.

**Make-up exams will only be considered in exceptional circumstances**

* Make-up exams will involve different questions than the standard exam (Advice: you want to avoid having to take a make-up exam).

### 2. Homework (Total: 25%; Two lowest grades dropped; ~8 papers total)

Most weeks you will be required to submit a short Reaction Paper (~1-2 pages) describing the 6 major elements of one of the assigned readings (Aims, Background/Significance, Approach, Key Results, Background/Significance, and Limitations/Future Challenges). The goal is to help you to organize your thoughts about the material prior to the classroom discussion. Assignments will be submitted using Canvas.

Detailed instructions: <https://tinyurl.com/ShackReactionPaper2018>

At the end of the semester, your 2 lowest response grades will be dropped—so there is no need to stress when the occasional unexpected issue crops up (e.g. illness, spaced out, etc.).

**3. Informal Flash Talk (15%)**

This assignment will take the form of a brief, in-class presentation (5-10 minute “flash talk”). The flash talk can be done solo or with a group. It must be related to class material, but can be in any format you choose. Examples include:

1. A live powerpoint presentation
2. A pre-recorded video (e.g. public service announcement)

The presentation could be focused on

1. A nano-lecture (e.g. a course-relevant topic incorporating outside scholarly readings)
2. A mobile-friendly app that you develop to nudge T&P
3. A proposed solution or intervention to a public health problem that is related to the class material
4. An intervention targeting a facet of T&P discussed in class
5. An (informal) analysis of your own traits (e.g. present the results of a 10+ day daily diary study)
6. A hypothetical experiment aimed at discovering some aspect of T&P
7. A videotaped interview(s) focused on a key aspect of T&P or the measurement of T&P

Groups of 2 or more can stage a scientific debate. Debates will be allotted (*N* \* 10 min) total, where N is the number of debaters.

Feel free to be creative on this assignment, but the topic and format must be pre-approved by the Dr. Shackman (see the Timetable).

Flash talks will be assigned one of the following grades: 1 (full credit), 1⁄2 (half-credit), 0 (no credit). Grades will be made available in Canvas. Unexcused late responses will be assigned a score of 0.

### http://thestamp.umd.edu/portals/0/Images/Food/coffeeBar.jpg4. Optional Snack with Shack, Man

Graduate seminars can be very impersonal. To address this, I would like to invite you to join me for a snack at *The Coffee Bar* (Stamp Union). Your choice of coffee, tea, juice and a pastry on me!

My hope is that this will provide an opportunity to get to know one another a little better and a relaxed, informal setting for chatting about the material covered in the class, other aspects of psychological science, your experiences as students on campus, or professional development.

Each week, one student is identified in the Timetable. When it’s your week, please send me a note letting me know:

* Whether you are interested—‘Snack with Shack, Man’ is completely optional
* If so, what days/times work for you and whether you would prefer to meet at the Union for a snack or in my faculty office

**Timetable**

|  |  |
| --- | --- |
| Date | Activity |
| Mon 8/27 | Module 1: Introductions, Course Mechanics, and Fundamental Questions Roundtable |
| Mon 9/3 | Labor Day Holiday |
|  | |
| Section 1: Foundational Issues in the Scientific Study of Temperament & Personality | |
| Mon 9/10 | Module 2: Is T&P Impactful?  *Optional Snack with Shack, Man: Melanie Arensen* |
| Mon 9/10 | Module 3: How is T&P Defined? What are the Fundamental Dimensions of T&P?  *Optional Snack with Shack, Man: Emma Chad-Friedman* |
| Mon 9/17 | Module 4: How Did We Discover and How Should We Measure Individual Differences in T&P?  *Optional Snack with Shack, Man: Jinny Choi* |
| Mon 9/17 | Module 5: How Are Traits and States Related? (Part 1)  *Optional Snack with Shack, Man: Jordan Epistola* |
| Mon 9/24 | \*\*No class |
| Mon 10/1 | Module 6: How Are Traits and States Related? (Part 2)  *Optional Snack with Shack, Man: Adam Factor* |
| Mon 10/1 | Module 7: What Do Traits Do? (Part 3)  *Optional Snack with Shack, Man: Hsin Jaw* |
| Mon 10/8 | Module 8: Intermediate Phenotypes and Brain Imaging Tools, Part 1  *Optional Snack with Shack, Man: Colleen Kase* |
| Mon 10/8 | Module 9: Intermediate Phenotypes and Brain Imaging Tools, Part 2  *Optional Snack with Shack, Man: Heather Killen* |
| Mon 10/15 | **Cumulative Midterm Exam #1** |
|  | |
| Section II: The Nature and Nurture of Temperament & Personality | |
| Mon 10/22 | Module 10: Nature & Nurture (Part 1): Behavioral Genetics and Heritability  *Optional Snack with Shack, Man: Yuqing Lei* |
| Mon 10/22 | Module 11: Nature & Nurture (Part 2): Molecular Genetics  *Optional Snack with Shack, Man: Danielle Novick* |
| Mon 10/29 | Module 12: Nature & Nurture (Part 3): Neurogenetics and Epigenetics  *Optional Snack with Shack, Man: Lauren Oddo* |
|  | |
| Section IV: Neuroticism/Negative Emotionality | |
| Mon 10/29 | Module 13: Neuroticism/Negative Emotionality and Psychopathology  *Optional Snack with Shack, Man: Xinyue Pan* |
| Wed 10/31 | **Flash Talk Proposals Due to Dr. S** |
| Mon 11/5 | Module 14: Behavioral Inhibition and Psychopathology  *Optional Snack with Shack, Man: Noor Qasmieh* |
| Mon 11/5 | Module 15: Role of the Extended Amygdala in Negative Emotionality, Behavioral Inhibition, and Psychopathology  *Optional Snack with Shack, Man: Ryan Sappington* |
| Mon 11/12 | Module 16: Splitting Negative Emotionality into Its Constituents, Part 1  *Optional Snack with Shack, Man: Christina Savage* |
| Mon 11/12 | Module 17: Splitting Negative Emotionality into Its Constituents, Part 2  *Optional Snack with Shack, Man: Joshua Strauss* |
|  | **Cumulative Midterm Exam #2** |
|  | |
| Section V: Extraversion/Positive Emotionality and Constraint/Self-Control | |
| Mon 11/19 | Module 18: Positive Emotionality, Self-Control, and Dopamine (Part 1): Depression and Anhedonia  *Optional Snack with Shack, Man: Kateryna Turkot* |
| Mon 11/19 | Module 19: Positive Emotionality, Self-Control, and Dopamine (Part 2): Substance Abuse, Impulse Control Disorders, and Everyday Temptation |
| Fri 11/23 | Flash Talk A/V Materials Due to Dr. S for those presenting on Monday, November 26th  *You will not be allowed to present if you do not share your A/V Materials at least 24 hours before your scheduled presentation time* |
| Mon 11/26 | **Student Flash Talks:** *Melanie Arenson, Emma Chad-Friedman, Jinny Choi, Jordan Epistola, <<take a break>>, Adam Factor, Hsin Jaw, Colleen Kase, Heather Killen, Yuqing Lei* |
| Fri 11/30 | Flash Talk A/V Materials Due to Dr. S for those presenting on Monday, December 3rd  *You will not be allowed to present if you do not share your A/V Materials at least 24 hours before your scheduled presentation time* |
| Mon 12/3 | **Student Flash Talks:** *Danielle Novick, Lauren Oddo, Xinyue Pan, Noor Qasmieh, <<take a break>>, Ryan Sappington, Christina Savage, Joshua Strauss, Kateryna Turkot* |
| Mon 12/10 | **Semester Re-Cap, Opportunity to Discuss Final Exam Material** |
| TBA | **Cumulative Final Exam** (Led by TA or Proctor) |

Please note: This schedule is subject to change. Any updates will be announced in class and posted on Canvas.

**readings**

* Please check Canvas for the most up-to-date list of readings
* <https://tinyurl.com/ShackReadings2018a>

**tips for deciphering the assigned papers**

Please see this handy guide:

* <https://tinyurl.com/DecipheringPapers2018>

**get some help!**

I expect you to take personal responsibility for you own learning. This includes acknowledging when your performance does not match your goals and doing something about it. Everyone can benefit from some expert guidance on time management, note taking, and exam preparation, so I encourage you to consider visiting <http://ter.ps/learn> and schedule an appointment with an academic coach. Or, if you just need someone to talk to, I encourage you to visit <http://www.counseling.umd.edu>.

Remember, everything is free because you already paid for it and everyone needs help…all you have to do is ask for it.

**additional policies**

Students are responsible for knowing relevant course and University policies

* <http://www.ugst.umd.edu/courserelatedpolicies.html>
* <https://tinyurl.com/ShackPolicies2018>

**ABOUT THE course**

Professor Alex Shackman

Dr. Shackman is an Assistant Professor in the Department of Psychology & Neuroscience (Clinical & CNS Area Groups), a member of the executive board for the interdepartmental Neuroscience and Cognitive Science (NACS) Program, a core faculty member of the Maryland Neuroimaging Center (MNC), and the Director of the Affective and Translational Neuroscience Laboratory at the University of Maryland. His work is supported by the NIMH (R01-MH107444, 2016-21) and NIDA (R21-DA040717, 2016-18) and has led to more than 60 papers and chapters. Dr. Shackman is Co-Editor of *The Nature of Emotion* (Oxford University Press), serves as Associate/Consulting Editor at several journals (e.g., *Emotion*), and has co-edited two special issues focused on the neurobiology of emotional states, traits, and disorders. He regularly chairs symposia at international scientific meetings and regularly lectures at other institutions around the world. Dr. Shackman is an active member of the Hierarchical Taxonomy of Psychopathology (HiTOP) consortium, helped organize the SOBP annual meeting for 3 years, and frequently reviews grant applications for the NIH and NSF. To learn more about his lab, please visit <http://shackmanlab.org>.

Acknowledgements

This course was developed more or less from scratch by Dr. Shackman, but it owes a heavy debt of gratitude to a number of individuals, including Dr. June Gruber (Boulder), Dr. Leah Somerville (Harvard), Tara Augenstein, Dr. Hill Goldsmith (Wisconsin), Dr. Heather Abercrombie (Wisconsin), Dr. Brad Bushman (OSU), Dr. Brent Roberts (UIUC), Dr. Rebecca Shiner (Colgate), Dr. Koraly Perez-Edgar (Penn State), Dr. Ned Kalin (Wisconsin), Dr. Richie Davidson (Wisconsin), Gloria Kim (Maryland), Dr. Jason Smith (Maryland), Dr. Dave Yager (Maryland), Dr. Scott Roberts (Maryland), Dr. Ryan Curtis (Maryland), and Dr. Andrew Fox (Davis). The feedback that I have received from students enrolled in prior semesters has also proven invaluable for refining and strengthening the course.