**Psychedelic Medicine**

PSYC S3471

Course Syllabus - Summer 2024

**Instructor:** Dr. Richard Zeifman **Seminar Time:** TBD

**E-mail**: [TBD](mailto:ih2194@columbia.edu) **Seminar Location:** TBD

**Office Hours:** TBD **Number of Credits:** TBD

**Course Description:**

Psychedelics are receiving growing attention in the fields of psychology, psychiatry, neuroscience, as well as in the general public. These substances produce a wide range of effects, ranging from changes in visual perception to alterations in one’s sense of self. When combined with psychological support or psychotherapy, these substances also appear to show therapeutic potential for a wide range of mental health concerns, including major depressive disorder and posttraumatic stress disorder. This course will focus on the current state of research on the psychological and neurobiological effects of psychedelics, as well as the interaction between psychedelic drugs and contextual influences. The course will begin by introducing and defining psychedelics, and surveying past and current research. Next, we will explore the effect of context on the acute and long-term effects of psychedelics, including traditional contexts in which psychedelics have been used and Western practices of combining psychedelics with psychotherapy. A core element of the course will include reviewing methodological approaches to studying the effects of psychedelics as interventions for clinical/psychiatric disorders. We will focus on clinical research that has examined the effects of psychedelics for the treatment of major depressive disorder, posttraumatic stress disorder, and existential distress. We will also review research that aims to understand how psychedelics work. The course will explore acute psychedelic experiences and the short and long-term neurobiological and psychological effects of psychedelics, as well as their role in facilitating potential therapeutic effects. Throughout the course, there will be a specific focus on critical appraisal of research, identifying strengths and limitations surrounding current research (e.g., sample selection, expectancy, blinding), and important avenues for future research.

The format of the course will include lectures, class discussions and presentations, and guest speakers.

**Prerequisites:** PSYC 1001 or permission of the instructor.

**Course Role in the Department:**

This seminar is designed for undergraduates majoring in Psychology or Neuroscience & Behavior, and for students participating in the Psychology Post-Baccalaureate Certificate program. It fulfills the following degree requirements:

- For the Psychology major or concentration in Columbia College and in the School of General Studies, and for the Psychology Post-Baccalaureate Certificate program, this course will meet the Group 2 (Neuroscience and Psychobiology) distribution requirement.

- For the Neuroscience and Behavior joint major, it will fulfill the Psychology requirement for an advanced psychology seminar (P5).

- For Psychology Post-Baccalaureate students and for Psychology majors, it will fulfill the seminar requirement.

**Class participation:**

**Your class participation grade will be based on your active participation in the course**. Active participation in the course involves making effective comments that integrate material, drawing on real-world experiences and observations, addressing questions raised by others, posing new questions to the class, offering thoughtful critiques of the research methodology used in a study and providing suggestions for how it might be improved, and participating in discussions following class presentations. Students who are concerned about their ability to contribute to class discussions should contact me during the first week of class. Additionally, if you expect that you will be unable to participate in a specific class due to being unable to attend because of emergency, religious reasons, sickness or some other unavoidable conflict, it is always a good idea to email me to let me know.

**Class Presentations:** Students will give a 10-minute presentation and lead a subsequent 10-minute class discussion on one of the articles assigned as homework. Depending on the number of students in the course, these presentations may be done individually or in groups. You will be providing your top 3 preferences for the week that you would like to present on. Detailed instructions for class presentations will be provided during the first week of class.

**Response papers:** To help prepare for class discussions, you will be asked to turn in 5 response papers (500-word minimum) that engages with the reading assignments for that week. You may select the classes for which you would like to submit your responses. In your papers, you may, among other things, synthesize findings and ideas presented in the readings and other materials, compare and contrast relevant viewpoints, identify criticisms, and present personal reflections on the materials. Response papers must be submitted to Courseworks before the beginning of class. Late papers will not receive credit. Grading criteria for response papers will be provided during the first week of class.

**Final Paper:** You will write an 8-10 page paper (double-spaced, Times New Roman 12-point font, one-inch margins) integrating and synthesizing research on a topic related to the course. Detailed instructions for the paper will be provided in class and posted on Courseworks. The final paper is due on TBD. Grades for late papers will be reduced by 10% for each day they are late.

**Grading:**

20%: Class participation

20%: Response papers

20%: Class Presentation   
40%: Final Paper (due on TBD)

**Part 1: Introduction**

**Week 1 — Introduction to the Course; What are psychedelics?; A brief review of the history of psychedelics and survey of current research**

Reading:

* Nutt, D., & Carhart-Harris, R. (2021). The current status of psychedelics in psychiatry. *JAMA Psychiatry*, *78*(2), 121-122.
* Johnson, M. W., Hendricks, P. S., Barrett, F. S., & Griffiths, R. R. (2019). Classic psychedelics: An integrative review of epidemiology, therapeutics, mystical experience, and brain network function. *Pharmacology & Therapeutics*, *197*, 83-102.
* Nichols, D. E., & Walter, H. (2020). The history of psychedelics in psychiatry. *Pharmacopsychiatry*, *54*(04), 151-166.

**Part 2: Set and Setting**

**Week 2 — Psychedelics and the Role of Context**

Readings:

* Carhart-Harris, R. L., Roseman, L., Haijen, E., Erritzoe, D., Watts, R., Branchi, I., & Kaelen, M. (2018). Psychedelics and the essential importance of context. *Journal of Psychopharmacology*, *32*(7), 725-731.
* Aday, J. S., Davis, A. K., Mitzkovitz, C. M., Bloesch, E. K., & Davoli, C. C. (2021). Predicting reactions to psychedelic drugs: A systematic review of states and traits related to acute drug effects. *ACS Pharmacology & Translational Science*, *4*(2), 424-435.
* Golden, T. L., Magsamen, S., Sandu, C. C., Lin, S., Roebuck, G. M., Shi, K. M., & Barrett, F. S. (2022). Effects of setting on psychedelic experiences, therapies, and outcomes: A rapid scoping review of the literature. In Barret, F. S., & Preller, K. H. (Eds.), *Disruptive Psychopharmacology. Current Topics in Behavioral Neurosciences, (vol. 56).* Springer.

**Week 3 — Psychedelic-Assisted Psychotherapy and Psychological Support**

Readings:

* Johnson, M. W., Richards, W. A., & Griffiths, R. R. (2008). Human hallucinogen research: Guidelines for safety. *Journal of Psychopharmacology*, *22*(6), 603-620.
* Mithoefer, M. (2013). MDMA-assisted psychotherapy: How different is it from other psychotherapy. MAPS Bulletin.
* Greenway, K. T., Garel, N., Jerome, L., & Feduccia, A. A. (2020). Integrating psychotherapy and psychopharmacology: Psychedelic-assisted psychotherapy and other combined treatments. *Expert Review of Clinical Pharmacology*, *13*(6), 655-670.

Additional Reading:

* Garcia-Romeu, A., & Richards, W. A. (2018). Current perspectives on psychedelic therapy: Use of serotonergic hallucinogens in clinical interventions. *International Review of Psychiatry*, *30*(4), 291-316.

**Part 3: Clinical Research and Methodology**

**Week 4: Methodological Approaches to Research and Challenges**

Readings:

* Aday, J. S., Heifets, B. D., Pratscher, S. D., Bradley, E., Rosen, R., & Woolley, J. D. (2022). Great Expectations: recommendations for improving the methodological rigor of psychedelic clinical trials. *Psychopharmacology*, *239*(6), 1989-2010.
* O’Donnell, K. C., Mennenga, S. E., & Bogenschutz, M. P. (2019). Psilocybin for depression: Considerations for clinical trial design. *Journal of Psychedelic Studies*, *3*(3), 269-279.
* van Elk, M., & Fried, E. I. (2023). History repeating: Guidelines to address common problems in psychedelic science. *Therapeutic Advances in Psychopharmacology*, *13*, 20451253231198466.

**Week 5 — Psychedelic Therapy for Major Depressive Disorder**

Readings:

* Raison, C. L., Sanacora, G., Woolley, J., Heinzerling, K., Dunlop, B. W., Brown, R. T., ... & Griffiths, R. R. (2023). Single-dose psilocybin treatment for major depressive disorder: A randomized clinical trial. *JAMA*, *330*(9), 843-853.
* Ko, K., Kopra, E. I., Cleare, A. J., & Rucker, J. J. (2022). Psychedelic therapy for depressive symptoms: A systematic review and meta-analysis. *Journal of Affective Disorders*, *322*, 194-204.

Additional Reading:

* Sloshower, J., Guss, J., Krause, R., Wallace, R. M., Williams, M. T., Reed, S., & Skinta, M. D. (2020). Psilocybin-assisted therapy of major depressive disorder using acceptance and commitment therapy as a therapeutic frame. *Journal of Contextual Behavioral Science*, *15*, 12-19.

**Week 6 — Psychedelic Therapy for Existential Distress**

Readings:

* Griffiths, R. R., Johnson, M. W., Carducci, M. A., Umbricht, A., Richards, W. A., Richards, B. D., ... & Klinedinst, M. A. (2016). Psilocybin produces substantial and sustained decreases in depression and anxiety in patients with life-threatening cancer: A randomized double-blind trial. *Journal of Psychopharmacology*, *30*(12), 1181-1197.
* Whinkin, E., Opalka, M., Watters, C., Jaffe, A., & Aggarwal, S. (2023). Psilocybin in palliative care: An update. *Current Geriatrics Reports*, *12*, 50-59.
* Patchett-Marble, R., O’Sullivan, S., Tadwalkar, S., & Hapke, E. (2022). Psilocybin mushrooms for psychological and existential distress: Treatment for a patient with palliative lung cancer. *Canadian Family Physician*, *68*(11), 823.

**Week 7 — MDMA-Assisted Psychotherapy for Posttraumatic Stress Disorder**

Readings:

* Mitchell, J. M., Ot’alora G, M., van der Kolk, B., Shannon, S., Bogenschutz, M., Gelfand, Y., ... & MAPP2 Study Collaborator Group. (2023). MDMA-assisted therapy for moderate to severe PTSD: A randomized, placebo-controlled phase 3 trial. *Nature Medicine*. Advance online publication.
* Sessa, B. (2017). Why psychiatry needs 3, 4-methylenedioxymethamphetamine: A child psychiatrist’s perspective. *Neurotherapeutics*, *14*(3), 741-749.
* Feduccia, A. A., & Mithoefer, M. C. (2018). MDMA-assisted psychotherapy for PTSD: Are memory reconsolidation and fear extinction underlying mechanisms?. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, *84*, 221-228.

**Week 8 — Ketamine and Ketamine-Assisted Psychotherapy**

Readings:

* Dore, J., Turnipseed, B., Dwyer, S., Turnipseed, A., Andries, J., Ascani, G., ... & Wolfson, P. (2019). Ketamine assisted psychotherapy (KAP): patient demographics, clinical data and outcomes in three large practices administering ketamine with psychotherapy. *Journal of Psychoactive Drugs*, *51*(2), 189-198.
* Dakwar, E., Nunes, E. V., Hart, C. L., Foltin, R. W., Mathew, S. J., Carpenter, K. M., ... & Levin, F. R. (2019). A single ketamine infusion combined with mindfulness-based behavioral modification to treat cocaine dependence: A randomized clinical trial. *American Journal of Psychiatry*, *176*(11), 923-930.
* Mathai, D. S., Mora, V., & Garcia-Romeu, A. (2022). Toward synergies of ketamine and psychotherapy. *Frontiers in Psychology*, *13*, 868103.

**Week 8 – Psychedelics, Micro-dosing, and Additional Outcomes (Alcohol use, Well-being, Smoking, Eating Disorders)**

Readings:

* Griffiths, R. R., Johnson, M. W., Richards, W. A., Richards, B. D., Jesse, R., MacLean, K. A., ... & Klinedinst, M. A. (2018). Psilocybin-occasioned mystical-type experience in combination with meditation and other spiritual practices produces enduring positive changes in psychological functioning and in trait measures of prosocial attitudes and behaviors. *Journal of psychopharmacology*, *32*(1), 49-69.
* Smigielski, L., Scheidegger, M., Kometer, M., & Vollenweider, F. X. (2019). Psilocybin-assisted mindfulness training modulates self-consciousness and brain default mode network connectivity with lasting effects. *NeuroImage*, *196*, 207-215.
* Polito, V., & Liknaitzky, P. (2022). The emerging science of microdosing: A systematic review of research on low dose psychedelics (1955–2021) and recommendations for the field. *Neuroscience & Biobehavioral Reviews*, *139*, 104706.

Additional Readings:

* Bogenschutz, M. P., Ross, S., Bhatt, S., Baron, T., Forcehimes, A. A., Laska, E., ... & Worth, L. (2022). Percentage of heavy drinking days following psilocybin-assisted psychotherapy vs placebo in the treatment of adult patients with alcohol use disorder: A randomized clinical trial. *JAMA Psychiatry*, *79*(10), 953-962.
* Johnson, M. W., Garcia-Romeu, A., Cosimano, M. P., & Griffiths, R. R. (2014). Pilot study of the 5-HT2AR agonist psilocybin in the treatment of tobacco addiction. *Journal of Psychopharmacology*, *28*(11), 983-992.
* Szigeti, B., Kartner, L., Blemings, A., Rosas, F., Feilding, A., Nutt, D. J., ... & Erritzoe, D. (2021). Self-blinding citizen science to explore psychedelic microdosing. *Elife*, *10*, e62878.

**Part 4: How Do Psychedelics Work?**

**Week 9 — How Do Psychedelics Work?: Acute Psychedelic Experiences**

Readings:

* Roseman, L., Nutt, D. J., & Carhart-Harris, R. L. (2018). Quality of acute psychedelic experience predicts therapeutic efficacy of psilocybin for treatment-resistant depression. *Frontiers in Pharmacology*, *8*, 974.
* Davis, A. K., Barrett, F. S., So, S., Gukasyan, N., Swift, T. C., & Griffiths, R. R. (2021). Development of the Psychological Insight Questionnaire among a sample of people who have consumed psilocybin or LSD. *Journal of Psychopharmacology*, *35*(4), 437-446.
* Nautiyal, K. M., & Yaden, D. B. (2023). Does the trip matter? Investigating the role of the subjective effects of psychedelics in persisting therapeutic effects. *Neuropsychopharmacology*, *48*(1), 215-216.

Additional Readings:

* Nour, M. M., & Carhart-Harris, R. L. (2017). Psychedelics and the science of self-experience. *The British Journal of Psychiatry*, *210*(3), 177-179.
* Rosenblat, J. D., Leon-Carlyle, M., Ali, S., Husain, M. I., & McIntyre, R. S. (2023). Antidepressant effects of psilocybin in the absence of psychedelic effects. *American Journal of Psychiatry*, *180*(5), 395-396.

**Week 10 — How Do Psychedelics Work?: Post-Acute Psychological Effects**

Readings:

* Crowe, M., Manuel, J., Carlyle, D., & Lacey, C. (2023). Experiences of psilocybin treatment for clinical conditions: A qualitative meta‐synthesis. *International Journal of Mental Health Nursing*, *32*, 1025-1037.
* Watts, R., Day, C., Krzanowski, J., Nutt, D., & Carhart-Harris, R. (2017). Patients’ accounts of increased “connectedness” and “acceptance” after psilocybin for treatment-resistant depression. *Journal of Humanistic Psychology*, *57*(5), 520-564.
* Swanson, L. R. (2018). Unifying theories of psychedelic drug effects. *Frontiers in Pharmacology*, 172.

Additional Reading:

* Nayak, S. M., & Griffiths, R. R. (2022). A single belief-changing psychedelic experience is associated with increased attribution of consciousness to living and non-living entities. *Frontiers in Psychology*, *13*, 1035.
* Barone, W., Beck, J., Mitsunaga-Whitten, M., & Perl, P. (2019). Perceived benefits of MDMA-assisted psychotherapy beyond symptom reduction: Qualitative follow-up study of a clinical trial for individuals with treatment-resistant PTSD. *Journal of Psychoactive Drugs*, *51*(2), 199-208.

**Week 11 — How Do Psychedelics Work?: Neurobiological Effects**

Readings:

* Carhart-Harris, R. L. (2019). How do psychedelics work?. *Current Opinion in Psychiatry*, *32*(1), 16-21.
* Wall, M. B., Harding, R., Zafar, R., Rabiner, E. A., Nutt, D. J., & Erritzoe, D. (2022). Neuroimaging in psychedelic drug development: Past, present, and future. Advance online publication.
* van Elk, M., & Yaden, D. B. (2022). Pharmacological, neural, and psychological mechanisms underlying psychedelics: A critical review. *Neuroscience & Biobehavioral Reviews*, 104793.

Additional Reading:

Doss, M. K., Považan, M., Rosenberg, M. D., Sepeda, N. D., Davis, A. K., Finan, P. H., ... & Barrett, F. S. (2021). Psilocybin therapy increases cognitive and neural flexibility in patients with major depressive disorder. *Translational Psychiatry*, *11*(1), 574.

**Part 4: Limitations, Concerns, and Future Directions**

**Week 12 — Psychedelics: Ethical and Safety Concerns; Course Wrap-Up**

Readings:

* Schlag, A. K., Aday, J., Salam, I., Neill, J. C., & Nutt, D. J. (2022). Adverse effects of psychedelics: From anecdotes and misinformation to systematic science. *Journal of Psychopharmacology*, *36*(3), 258-272.
* Johnson, M. W. (2020). Consciousness, religion, and gurus: Pitfalls of psychedelic medicine. *ACS Pharmacology & Translational Science*, *4*(2), 578-581.
* Thrul, J., & Garcia-Romeu, A. (2021). Whitewashing psychedelics: racial equity in the emerging field of psychedelic-assisted mental health research and treatment. *Drugs: Education, Prevention and Policy*, *28*(3), 211-214.

Additional Readings:

* Yaden, D. B., Potash, J. B., & Griffiths, R. R. (2022). Preparing for the bursting of the psychedelic hype bubble. *JAMA psychiatry*, *79*(10), 943-944.
* Gukasyan, N. (2023). On blinding and suicide risk in a recent trial of psilocybin-assisted therapy for treatment-resistant depression. *Med*, *4*(1), 8-9.
* Simonsson, O., Hendricks, P. S., Chambers, R., Osika, W., & Goldberg, S. B. (2023). Prevalence and associations of challenging, difficult or distressing experiences using classic psychedelics. *Journal of Affective Disorders*, *326*, 105-110.

**Course Policies**:

**Fostering an Inclusive Classroom**: Together, we will work to develop a classroom that is focused on curiosity, exploration, and critical thinking within an environment that is welcoming of a diversity of perspectives and identities. Please contact me if you experience any concerns that you feel threaten this element of the class throughout the course and we will work together to ensure these principles are upheld.

Students with special needs who may require classroom/test 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 <https://health.columbia.edu/content/disability-services>, or by calling (212) 854-2388.

**Academic Integrity**:

Academic honesty will be strongly enforced. Columbia students commit to the Honor Code as follows: “I affirm that I will not plagiarize, use unauthorized materials, or give or receive illegitimate help on assignments, papers, or examinations. I will also uphold equity and honesty in the evaluation of my work and the work of others. I do so to sustain a community built around this Code of Honor.” For further details on academic integrity, please see [Academic Integrity | Columbia College](https://www.college.columbia.edu/academics/academicintegrity).