



DEPARTMENT OF NEUROBIOLOGY, CARE SCIENCES AND SOCIETY

H1F5767, Psychedelic Science – Past, Present, Future, 1.5 credits (hec)

Psykedelisk vetenskap - dåtid, nutid, framtid, 1,5 högskolepoäng

Third-cycle level / Forskarnivå

Approval

This syllabus was approved by The Committee for Doctoral Education on 2023-12-28, and was last revised on 2025-08-14. The revised course syllabus is valid from autumn semester 2025.

Responsible department

Department of Neurobiology, Care Sciences and Society, Faculty of Medicine

Prerequisite courses, or equivalent

No prerequisite courses, or equivalent, demanded for this course.

Purpose & Intended learning outcomes

Purpose

The purpose of the course is to provide a broad overview of psychedelic science.

Intended learning outcomes

The student should after the course be able to:

- Give an account of the history of psychedelic use and research.
- Describe the current state of knowledge in the field of psychedelic science.
- Discuss methodological challenges and safety concerns related to psychedelic science.
- Present an idea for a future psychedelic research project.

Course content

The course will examine the past, present, and future of psychedelic use and research. The lectures will cover the history of psychedelic use in various cultural contexts, pharmacology and phenomenology of psychedelics, the potential therapeutic effects of psychedelic-assisted

psychotherapy, and the methodological, ethical, and safety issues associated with clinical research on psychedelics. Future avenues in psychedelic research will be discussed in interactive discussions with the students.

Forms of teaching and learning

The course will run day time for one week full-time with a mix of lectures by invited internationally leading scientists, participants group assignments as well as individual studies.

Language of instruction

The course is given in English

Grading scale

Pass (G) /Fail (U)

Compulsory components & forms of assessment

Compulsory components

The group assignments, the oral presentations by the students and the following general discussion between all participants are compulsory. Students that are absent from these parts will have to individually submit a written presentation of the subject that needs to be presented orally to the course examiner.

Forms of assessment

The examination part includes oral presentations by the students and general discussion between all participants. All students are individually assessed.

Course literature

Mandatory course literature:

Aday, J. S., Carhart-Harris, R. L., & Woolley, J. D. (2023). Emerging challenges for psychedelic therapy. *JAMA Psychiatry*, 80(6), 533-534.

<https://jamanetwork.com/journals/jamapsychiatry/article-abstract/2803841>

Carhart-Harris, R. L., & Friston, K. (2019). REBUS and the anarchic brain: toward a unified model of the brain action of psychedelics. *Pharmacological Reviews*, 71(3), 316-344. <https://doi.org/10.1124/pr.118.017160>

Johnson, M. W., Richards, W. A., & Griffiths, R. R. (2008). Human hallucinogen research: guidelines for safety. *Journal of Psychopharmacology*, 22(6), 603-620. <https://doi.org/10.1177/0269881108093587>

Nichols, D. E. (2016). Psychedelics. *Pharmacological Reviews*, 68(2), 264-355. <https://doi.org/10.1124/pr.115.011478>

Simonsson, O., Johnson, M. W., & Hendricks, P. S. (2024). Psychedelic and MDMA-Related

Adverse Effects—A Call for Action. JAMA Health Forum, 5(11), e243630-e243630. <https://jamanetwork.com/journals/jama-health-forum/fullarticle/2825777>

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. <https://jamanetwork.com/journals/jamapsychiatry/article-abstract/2795948>

Recommended course literature:

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, 1-22.

Anderson, B. T., Danforth, A., & Grob, C. (2020). Psychedelic medicine: safety and ethical concerns. Lancet Psychiatry, 7(10).

Barnett, B. S., Vest, M. F., Delatte, M. S., King IV, F., Mauney, E. E., Coulson, A. J., ... & Murnane, K. S. (2025). Practical considerations in the establishment of psychedelic research programs. Psychopharmacology, 242(1), 27-43. <https://doi.org/10.1007/s00213-024-06722-6>

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.

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.

Goodwin, G. M., Aaronson, S. T., Alvarez, O., Arden, P. C., Baker, A., Bennett, J. C., ... & Malievskaia, E. (2022). Single-dose psilocybin for a treatment-resistant episode of major depression. New England Journal of Medicine, 387(18), 1637-1648.

Grossman, D. H., Madden, K. R., Mehtani, N. J., Anderson, B. T., Davis, L. L., Mitchell, J. M., & Hendricks, P. S. (2025). A systematic review of income and education reporting in psychedelic clinical trials. Nature Mental Health, 3(5), 567-574.

Hinkle, J. T., Graziosi, M., Nayak, S. M., & Yaden, D. B. (2024). Adverse events in studies of classic psychedelics: A systematic review and meta-analysis. JAMA Psychiatry.

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.

Rockhill, K. M., Black, J. C., Ladka, M. S., Sumbundu, K. B., Olsen, H. A., Jewell, J. S., ... & Monte, A. A. (2025). The rise of psilocybin use in the United States: a multisource observational study. Annals of Internal Medicine.

Siegel, J. S., Daily, J. E., Perry, D. A., & Nicol, G. E. (2023). Psychedelic drug legislative reform and legalization in the US. JAMA Psychiatry, 80(1), 77-83.

Siegel, J. S., Subramanian, S., Perry, D., Kay, B. P., Gordon, E. M., Laumann, T. O., ... & Dosenbach, N. U. (2024). Psilocybin desynchronizes the human brain. Nature, 632(8023), 131-138.

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.

Simonsson, O., Mosing, M. A., Osika, W., Ullén, F., Larsson, H., Lu, Y., & Wesseldijk, L. W. (2024). Adolescent psychedelic use and psychotic or manic symptoms. *JAMA Psychiatry*, 81(6), 579-585.

Walsh, C. A., Gorfinkel, L., Shmulewitz, D., Stohl, M., & Hasin, D. S. (2024). Use of Lysergic acid Diethylamide by major depression status. *JAMA Psychiatry*, 81(1), 89-96.