



Course Code & Title	LISS2005 Open and Responsible Research Practice		
Convenor(s)	Ze Freeman & Filip Marzecki		
Institution	KCL	Department	Psychology
Academic Year	2025-26	Term	1
Number of Sessions	5	Length of Session(s)	Four 30-minute asynchronous lectures, one full day workshop split into AM and PM
Day, Date	Start and End time		Room Location
Friday October 31st 2025	10am – 5pm (with a lunch break)		Lectures – asynchronous, online Workshop – in-person at WATERLOO FWB 1.68
Enrolment Link:	Available to book on SkillsForge from Tuesday 7th October 2025 . Click to log in and register: https://training.kcl.ac.uk/kcl/#he/dev/eventDetails;em.providerCode=LISS,providerOrgAlias=kcl,number=2005; Questions? Visit our Training FAQ here: Frequently Asked Questions - LISS DTP (liss-dtp.ac.uk)		

Course Description:

This course will be an in-depth introduction to open research. The public have a high degree of trust in scientists and researchers. This course will cover the ways that the goals of research sometimes misalign with research practice, and how we can work to live up to public trust. We will cover what underlies the way we carry out research, how this has gone awry, and the practical ways we can engage in open and responsible research.

Meet your course convenor(s):

Filip Marzecki is a PhD student at the IoPPN, researching social epidemiology of self-harm. Filip specialises in genetically informed research methods, such as twin studies, as well as epidemiological methods, such as longitudinal cohort studies. He has a keen interest in mixed methods research, notably incorporating qualitative methods into twin research, and in philosophy of science.

Ze Freeman is a PhD student in Psychology, interested in understanding the mechanisms of psychological processes. Ze's PhD research focuses on investigating the neural correlates and daily experiences of people with co-occurring psychosis and post-traumatic stress, using functional MRI and experience sampling methodology.

Learning Outcomes:

1. To be able to link philosophical concepts, such as epistemology, to research practice



2. To be able to define key philosophy of science terms
3. To understand what replications in research are
4. To understand how the replication crisis relates to the trustworthiness of research
5. To be able to give some examples of meta-research
6. To be familiar with open research principles regarding data sharing, transparency, etc.
7. To be able to implement open research principles in practice

Course Outline:

This course will be delivered in four asynchronous lectures and one day-long practical workshop.

The four 30-minute lectures will cover:

- (1) A brief background in relevant philosophy of science
- (2) The replication crisis and public trust in research findings
- (3) Research on research (meta-research)
- (4) Constructive guidance for taking open research approaches

1) Philosophy of Science

The first lecture aims to explain why philosophy is important for researchers. It introduces common divisions of reasoning - induction and deduction, as well as empiricism. These are linked to research practice as the orientations that guide the researchers' actions and decisions.

Additionally, it aims to introduce key ontological and epistemological concepts, i.e., different ways of regarding reality and how we come to know it as humans. Links are made to some current research paradigms with an examination of what are their philosophical underpinnings.

2) Are Replication and Trust Synonymous?

We'll start with some background about why we trust research findings in the first place before covering the goals of research and how these should, in theory, make research trustworthy and credible. Then we will look at how these goals play out in practice. We'll discuss the crisis part of the replication crisis, and some of the problems for research that the replication crisis has shed light on. Finding an optimistic route forward, we will finish by covering the lessons learnt, how trust can be held as a central value in research, and how meta-research can help.

3) Meta-Research

Research about the way we carry out and disseminate work has the potential to reveal problems in our practice. We have learned already about issues with replicability of scientific evidence, and here we will cover the ways that large scale 'meta-research' projects can show how different fields are operating when they share this evidence. Meta-research projects take an empirical approach to studying research and help shed light on whether our understanding of the world is progressing in the cumulative fashion we might hope.



4) Open Research Guidance

This session aims to introduce the open research movement and explain what its principles are and how they can address the challenges faced by research, brought up in topics 1-3. It aims to introduce open research practices, such as open data access, code-sharing, and preregistration and introduce the attendees to resources used to implement these practices (e.g., code-sharing platforms, preregistration methods).

Workshop

The aims of the one-day workshop are to discuss the content of the lectures and to practice applying open research principles. Activities will include interdisciplinary group discussion, applying philosophy to examples of research projects, exploring open research tools, and planning how to apply open research approaches to participants' own research projects.

In the morning, we will get to know each other and our research backgrounds, discuss the concepts from the philosophy of science lecture and engage in activities that prompt reflections of philosophical underpinnings of different pieces of research.

In the afternoon, we will discuss the replication crisis, and looking at some research examples, we will consider the practice of replicating, including its challenges. Additionally, we will discuss the importance of building trust in research and how it can be accomplished in different disciplines. This will be followed by a series of activities in which participants will practice implementing open research approaches. We will explore how to use open research tools in relation to participants' own research, which may include planning a preregistration, investigating data sharing tools, or finding out about best open practice in a field. Finally, we will discuss barriers to open research and reflect on the whole day.

Reading:

Recommended:

Okasha, S. (2002). Chapter 1: What is Science? *Philosophy of science: A very short introduction* (Vol. 67). Oxford Paperbacks.

FIGURE 1 from: Moon, K., & Blackman, D. (2014). A guide to understanding social science research for natural scientists. *Conservation biology*, 28(5), 1167-1177.

Ioannidis, J. P. A. (2005). Why most published research findings are false. *PLoS Med* 2(8): e124. <https://doi.org/10.1371/journal.pmed.0020124>

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*, 22(11), 1359–1366. <https://doi.org/10.1177/0956797611417632>

Additional:



Okasha, S. (2002). Chapter 2: Scientific Reasoning. *Philosophy of science: A very short introduction* (Vol. 67). Oxford Paperbacks.

Okasha, S. (2002). Chapter 4: Realism and Anti-Realism. *Philosophy of science: A very short introduction* (Vol. 67). Oxford Paperbacks.

Crotty, M. J. (1998). The foundations of social research: Meaning and perspective in the research process. *The foundations of social research*, 1-256.

Pownall, M. (2024). Is replication possible in qualitative research? A response to Makel et al. (2022). *Educational Research and Evaluation*, 1-7. <https://doi.org/10.1080/13803611.2024.2314526>

Moon, K., & Blackman, D. (2014). A guide to understanding social science research for natural scientists. *Conservation biology*, 28(5), 1167-1177.

Rosenzweig, R. (2006). Can history be open source? Wikipedia and the future of the past. *The journal of American history*, 93(1), 117-146. <https://doi.org/10.2307/4486062>

Pre course preparation

Watch the pre-recorded lectures prior to the workshop day.

Eligibility

There are no eligibility requirements for this course.

Recordings (only on KEATS):

Slides (only on KEATS):

Number of students:

Min: TBD

Max: 30 for in person workshop