

MNSES9100 Autumn 2017 (23nd–27th October)

TIMETABLE + READING LIST

*Starred items **are papers that will be discussed in detail during class and students are particularly recommended to read beforehand, *is primary syllabus material, and supports the lectures given. The other entries are suggestions for further reading for those who want to research the lecture topic further, e.g., in connection with writing essays. The essay seminar leaders will be able to recommend additional reading for essay writing material*

Monday 23rd Morning

Helga Engs Hus Aud 1

0915-1000 **Introduction to the Course and History of Philosophy of Science** (*Deborah Oughton*)

1015-1200 **Demarcation of Science from other Disciplines: Popper and Falsification** (*Deborah Oughton*)

1200-1315 **Lunch**

Reading

****Popper, K.** "Conjectures and refutations" in Klemke et al (eds.) *Introductory Readings in the Philosophy of Science* (Prometheus 1998).

<http://www.calpoly.edu/~fotoole/321.1/popper.html>

***Chalmers, A.** *What is this thing called science?* (3rd. edition, Open University Press 1999): Intro., ch. 1, (2), (3), 4, 5, (6) 7 (bracketed chapters less central).

***Ziman, John M.** (1968), "What Is Science?", from John M. Ziman, *Science Is Public Knowledge* (Cambridge, UK: Cambridge University Press).

Monday 23rd Afternoon

Helga Engs Hus Aud 1

1315-1400 **Research Ethics I: Introduction to Research Ethics; Scientific Integrity and Misconduct** (*Deborah Oughton*)

Topics: Intrinsic research ethics; Duties towards other scientists and research subjects (animals, humans); fraud and misconduct in science.

Case studies: Research subjects – Stanley Milgram; Fraud Accusations – Jon Sudbø (Norway), Haruko Obokata (Japan)

1415-1500 **Group Discussion: The “Scientific” Method?**

1515-1600 **Research Ethics I cont:** (*Deborah Oughton*)

Kjemi Aud 2

**#overlyhonestmethods <https://storify.com/BeckiePort/overlyhonestmethods>

Background literature

*Peach, L. An introduction to ethical theory, in: *Research Ethics: Cases and Materials* (Penslar, R.L) Indiana University Press, 1995, 13-26 (article available on MNSES website)

*Shrader-Frechette, K. Introduction to research ethics, in *Ethics of Scientific Research* (K. Shrader-Frechette), Rowman and Little 1994. (article available on MNSES website)

Case Studies

Milgram: Blass, T. 2002. The man who shocked the world. *Psychology Today*

<http://www.psychologytoday.com/articles/200203/the-man-who-shocked-the-world>

Obokata: 2015 .<http://www.theguardian.com/science/2015/feb/18/haruko-obokata-stap-cells-controversy-scientists-lie>

Additional Reading

Helen Longino. Gender and racial biases in scientific research, in *Ethics of Scientific Research* (K. Shrader-Frechette), Rowman and Little 1994, 139-151.

Tuesday 24th Morning

Kristen Nygaards Hus Lille Aud

0915-1200 **Science in education and in society in an international perspective: Is there acrisis?** (*Svein Sjöberg*)

Topics: International studies schools and student achievement. What can we learn from comparative studies in science and mathematics education? On standardization, testing, competition, globalization, commercialization and market-driven policies

*Sjöberg, S. (2016). OECD, PISA, and Globalization. The Influence of the International Assessment Regime. In Tienken, C. H. & Mullen, C. A. (Eds). (2016). *Education Policy Perils. Tackling the Tough Issues*. Routledge

https://www.researchgate.net/publication/286869934_OECD_PISA_and_Globalization_The_Influence_of_the_International_Assessment_Regime

Sjöberg and Schreiner (2010). The ROSE project (The Relevance of Science Education): Overview and Key findings.

http://folk.uio.no/sveinsj/ROSE-overview_Sjoberg_Schreiner_2010.pdf

Sjöberg (2002). *Science and Technology in Education: Current Challenges and Possible Solutions in Innovations in Science and Technology Education*, Paris, UNESCO

http://folk.uio.no/sveinsj/STE_paper_Sjoberg_UNESCO2.htm

1200-1315 **Lunch**

Tuesday 24th Afternoon

Helga Engs Hus Aud 2

1315-1400 **Research Ethics II: Ethical Theories** (*Andreas Carlsson, ConceptLab, IFFIK*)

Topics: Ethics and ethical theories, examples from Biotechnology

1415-1500 **Group Discussion**

1515-1600 **Research Ethics II: Ethical Theories cont .**

*Beauchamp, T. and Childress. *Principles of Biomedical Ethics*. Fifth Edition. 2001. Chapters 1, 2, 8 & 9 (article available on MNSES website)

Wednesday 25th Morning

Helga Engs Hus Aud 2

0915-1000 **Science, Pseudoscience and Ideology** (Deborah Oughton)

Topics: From scientific objectivity to social construction of science (Kuhn, Lakatos, Feyerabend); "Alternative Facts", Links between science, politics and ideology.

Case Studies: Galileo, Lysenko, Creationism, Alternative medicine, Climate change research

1015-1100 **Group Discussion**

1115-1200 **Science, Pseudoscience and Ideology cont.** (Deborah Oughton)

Kjemi Aud 1

**Feyerabend, P. "How to defend society against science" in Klemke et al op. cit.

<http://www.calpoly.edu/~fotoole/321.1/feyer.html>

Chalmers op. cit.: ch. 8, 9, 10, 11.

Kuhn, T. *The Structure of Scientific Revolutions*, 2nd edition (University of Chicago Press), Postscript (pp.174-210)

*Ian Hacking on Thomas Kuhn's Legacy as "The Paradigm Shift" Turns 50. *Scientific American* (2012). <http://www.scientificamerican.com/article/kuhn/>

Kitcher, P. „Believing where we cannot prove“ in Klemke et al (eds.) *Introductory Readings in the Philosophy of Science* (Prometheus 1998) (article available on MNSES website)

*Thagard, P.R. „Why astrology is a pseudoscience“ in Klemke et al (eds.) *Introductory Readings in the Philosophy of Science* (Prometheus 1998).

<http://watarts.uwaterloo.ca/~pthagard/Articles/astrology.pdf>

Latour, B. 1983. Give me a laboratory and I will raise the world. In *Science Observed: Social Perspectives on Science* <http://www.bruno-latour.fr/sites/default/files/12-GIVE-ME-A-LAB-GB.pdf>

Additional Reading

Collins, H. and Pinch, T. "Edible Knowledge: the chemical transfer of memory" and "Two experiments that 'proved' the theory of relativity", in *The Golem: What Everyone should know about Science*, 2nd Edition (Cambridge University Press, 2012). The First edition, with both chapters can be downloaded from:

http://sciencepolicy.colorado.edu/students/envs_5110/collins_the_golem.pdf

Knorr, K.D.: "Tinkering Towards Success: Prelude to a Theory of Scientific Practice". In *Theory and Society* Vol 8 (1979), pp. 347-376 (article available on MNSES website)

1200-1315 **Lunch**

Wednesday 25th Afternoon

Helga Engs Hus Aud 1/3

1315-1330 Discussion Feedback

1330-1500 **Research Ethics III: Risky Business: Societal Consequences of Research (Deborah Oughton)**

Topics: Societal consequences of research; Risky technologies, Risk Assessment and management, probability, statistics and bias.

*Oughton and Strand: Risk and Uncertainty As a Research Ethics Challenge

<https://www.etikkom.no/Vart-arbeid/Hva-gjor-vi/Publikasjoner/Risk-and-Uncertainty---as-a-Research-Ethics-Challenge/>

1515-1600 **The Modern University (Deborah Oughton)**

The role of universities in society; funding, political control of research; patents and intellectual property rights

**Ziman, 2009. Is Science losing its objectivity? *Nature* (article available on MNSES website)

*Schwartz, S. (2006) Value, Ethics and Teaching. In: "*Values and Ethics: Managing Challenges and Realities in Higher Education*", IMHE /OECD: Paris (article available on MNSES website)

1800 – Film and discussion organised by UiODoc <https://foreninger.uio.no/uiodoc/events/> (voluntary)

Thursday 26th Morning

Kristen Nygaards Hus Lille Aud

0915-1000 **Advice on Essay Writing (Deborah Oughton)**

1015-1200 **Ethical Challenges in Information Technology (Charles Ess)**

**Ess, Charles 2015. New selves, new research ethics? In: Fossheim, Hallvard and Ingierd, Helene. Internet Research Ethics

<http://press.nordicopenaccess.no/index.php/noasp/catalog/book/3>

*Markham, A. and Buchanan, E. 2012. Ethical Decision-Making and Internet Research: Recommendations from the AoIR Ethics Working Committee (Version 2.0):

<http://aoir.org/reports/ethics2.pdf>

Additional Reading

Ess, Charles. 2014. Ethics at the Boundaries of the Virtual. In The Oxford Handbook of Virtuality, ed. Mark Grimshaw, 683-697. Oxford: OUP.

1200-1315 **Lunch**

Thursday 26th Afternoon

Store Auditorium: Fysikkbygningen

1315-1400 **Environmental Ethics and Animal Rights** (*Andreas Carlsson, ConceptLab, IFFIK*)

1415-1500 Group Discussion

1515-1600 **Environmental Ethics and Animal Rights (cont)** Helga Engs Aud 3

Topics: Animal rights; “Valuing” the environment: anthropocentrism, biocentrism, ecocentrism.

**Elliot, R. Environmental Ethics, in: A Companion to Ethics (Singer, P. ed) 1992, 284-510 (Blackwell) (article available on MNSES website)

*Singer, Peter. Animal Liberation, In: *Environmental Philosophy* (Zimmerman et.al.) 1993, 22-32

See also: <http://www.utilitarian.net/singer/by/1979----.htm>

Regan, Tom. Animal Rights. In: *Environmental Philosophy* (Zimmerman et.al.), 1993, 33-48. Tom Regan. The case for Animal Rights

<http://faculty.webster.edu/corbetre/philosophy/animals/regan-text.html>

Naess, A. The deep ecological movement: Some philosophical aspects. *Philosophical Inquiry*, 1986, 10-31

Friday 27th Morning

Helga Engs Hus Aud 2

The final day of the course is dedicated to a series of lectures and discussions that primarily address ethical challenges with publication and dissemination of research, but also aims to provide students with information on where they can find practical support to help them in during their PhD studies. In addition to publication and authorship, information will be

provided on research ethics committees, ethical guidelines and the various services available from the UiO library.

0915-0935 **Library 101: A brief introduction to PhD on Track and the University Library** (*Torgunn Karoline Moe, Science Library, UiO*)

Useful websites:

<http://www.ub.uio.no/>

<http://www.phdontrack.net/>

0935-1100 **Research Ethics IV: Research Ethics Guidelines: Publication, Authorship and the Vancouver Recommendations** (*Deborah Oughton*)

1115-1200 Group Discussion – publication and authorship

** The National Committees for Research Ethics in Norway; Guidelines for research ethics in science and technology. 2nd Edition (2016) <https://www.etikkom.no/en/ethical-guidelines-for-research/guidelines-for-research-ethics-in-science-and-technology/>

This gives a link to the English version. The guidelines are also available in Norwegian, and Guidelines are available from the same site for Research Ethics in the Social Sciences, Law and the Humanities (2016), as well as Internet Research (2014)

"Vancouver Recommendations": ICMJE Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly work in Medical Journals www.icmje.org See particularly *Defining the Roles of Authors and Contributors*.

<http://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html>

Friday 27th Afternoon

Helga Engs Hus Aud 2

1315-1335 Group discussion feedback

1335-1500 **Prepare to publish: A guide to the publishing process, Open Access publication, self archiving, data management, and managing your impact.** (*Torgunn Karoline Moe, Heidi Sjursen Konestabo, Edina Pózer Bue, Science Library*)

Useful websites:

<http://www.sherpa.ac.uk/romeo/index.php>

<https://doaj.org/>

http://www.nsd.uib.no/nsd/english/scientific_journals.html

<https://arxiv.org/>

<https://www.duo.uio.no/>

<http://www.cristin.no/english/>

