

***MNSES9100 Spring 2015 (18<sup>th</sup>–22<sup>nd</sup> May)***

**TIMETABLE + READING LIST**

*Starred items \*are primary syllabus material (pensum); \*\* are papers that will be discussed during class and students are particularly recommended to read beforehand. 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 18<sup>th</sup> Morning

Fysikkbygningen: Store Aud

0915-1000    **Introduction 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://cla.calpoly.edu/~fotoole/321.1/popper.html>

\*Ziman, J. *What is Science*

\*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).

Monday 18<sup>th</sup> Afternoon

Sophus Bygges Hus: Aud 1

1315-1400    **Group Discussion – What is Science?**

1415-1530    **Science and Pseudoscience** (*Deborah Oughton*)

1530-1600    **Advice on Essay Writing** (*Deborah Oughton*)

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

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

\*Chalmers op. cit.: ch. 10, 11

\*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>

#### Additional material

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*, 2<sup>nd</sup> 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](http://sciencepolicy.colorado.edu/students/envs_5110/collins_the_golem.pdf)

### Tuesday 19<sup>th</sup> Morning

Kristen Nygaards Hus: Store Aud

0915-1000 **Research Paradigms: Kuhn** (*Beate Elvebakk*)

\*Chalmers op. cit.: ch. 8, 9, 11.

\*Kuhn, T. *The Structure of Scientific Revolutions*, 2<sup>nd</sup> 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/>

1015-1130 **Research Ethics I: Ethical Guidelines and Scientific Misconduct** (*Deborah Oughton*)

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

1130-1200 **Group Discussion – Fabrication or social construction?**

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

#### General Research Ethics

\*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 MNSSES website)

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

#### Ethical Guidelines

\*\* The National Committees for Research Ethics in Norway; Guidelines for research ethics in science and technology (2008) <https://www.etikkom.no/Forskningsetikk/Etiske-retningslinjer/Naturvitenskap-og-teknologi/>

This gives a link to the Norwegian version. The guidelines are also available in English, and Guidelines are available from the same site for Research ethics in the social sciences, law and the humanities (2006)

#### Case Studies

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

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 19<sup>th</sup> Afternoon

Helga Engs Hus: Aud 3

1315-1400 **Research Ethics I: cont** (*Deborah Oughton*)

1415-1600 **The Social Construction of Science: Latour, Knorr-Cetina** (*Beate Elvebakk*)

\*\*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

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 MNSSES website)

### Wednesday 20<sup>th</sup> Morning

Kristen Nygaards Hus: Store Aud

0915-1100 **Research Ethics II: Ethical Theories** (*Espen Gamlund*)

Topics: Ethics and ethical theories, examples from Biotechnology

1115-1200 **Group Discussion**

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

1200-1315 **Lunch**

### Wednesday 20<sup>th</sup> Afternoon

Helga Engs Hus: Aud 2

1315-1500 **Environmental Ethics and Animal Rights** (*Espen Gamlund*)

Topics: Animal rights; Ecology and the history of the environmental movement; “Valuing” the environment: anthropocentrism, biocentrism, ecocentrism.

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

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

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

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

Tom Regan. The case for Animal Rights

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

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

### Thursday 21<sup>st</sup> Morning

Kristen Nygaards Hus: Store Aud

0915-1200 **Science in education and in society in an international perspective: Is there a crisis?** (*Svein Sjøberg*)

\*Sjøberg 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](http://folk.uio.no/sveinsj/ROSE-overview_Sjoberg_Schreiner_2010.pdf)

Sjøberg (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](http://folk.uio.no/sveinsj/STE_paper_Sjoberg_UNESCO2.htm)

### Thursday 21<sup>st</sup> Afternoon

Eliert Sundts Hus: Aud 1

1315-1500 **The Modern University** (*Beate Elvebakk*)

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)

1400-1430 **Group Discussion**

1515-1600 **PhDonTrack** (*Torgunn Karoline Moe and Jessica Lønn-Stensrud, UiO Bibliotek*)

See: [www.phdontrack.net](http://www.phdontrack.net) and [www.ub.uio.no](http://www.ub.uio.no) for further information.

Friday 22<sup>nd</sup> Morning

Kristen Nygaards Hus: Store Aud

0915-1100 **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>

\* Ess, Charles. et al. 2002. Ethical decision-making and Internet research: Recommendations from the Association of Internet Researchers (AoIR) for ethical guidelines for internet researchers: <http://aoir.org/reports/ethics.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.

1115-1200 **Research Ethics IV: Publication, Authorship and the Vancouver Recommendations** (*Deborah Oughton*)

"Vancouver Recommendations": ICMJE Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly work in Medical Journals [www.icmje.org](http://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>

1200-1315 **Lunch**

Friday 22<sup>nd</sup> Afternoon

Kristen Nygaards Hus: Store Aud

1315-1400 **Publication/authorship - continued**

1415-1500 **Research Ethics II, Risky Business: Statistics and Uncertainty** (*Deborah Oughton*)

Topics: 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/>