

## **Second semester specialisation 2006: *Science and Politics in Controversies on Nature***

(course TIK4010)

Spring semester 2006

Centre for Technology, Innovation and Culture,  
University of Oslo

### ***Schedule and Reading list***

*Most of the literature is now available electronically, either by links from this document, or from a private archive (documents marked **pdf**). A link to this archive cannot be published on the net, for reasons of copyright. Write to [lars.risan@tik.uio.no](mailto:lars.risan@tik.uio.no) for a link to the electronic documents. (Paper versions can be picked up at my office, from Lars Risan, University of Oslo, The TIK centre, office number 544, phone: (+47) 22 84 16 07.)*

### **Table of Contents**

<b>Second semester specialisation 2006:</b> .....	<b>1</b>
Week 1: Introduction: the role of science in society and in controversies on nature....	2
13. feb, 10.15-12: All .....	2
13. feb, 14.15-16: Silje Rem.....	2
16. feb, 10.15-12: Lars + all.....	2
16. feb, 12.15-16: Kristin.....	2
Week 2: Science as social relations: Critiques of expertise, matter of fact natures and science as ideology.....	2
20. feb, 14.15-16: Ingunn.....	2
23. feb, 10.15-12: Lars.....	3
Week 3: The emergence of the new nature of science, of matters of fact, and of nature/science as arbiter.....	3
27. feb, 10.15-12: Lars.....	3
27. feb, 14.15-14: Brita.....	3
2. mar, 10.15-12: (Tore T.).....	3
2. mar, 14.15-16: Workshop.....	3
Week 4: Public Involvement in Science.....	3
6. mar, 10.15-12: Lars.....	4
6. mar, 14.15-16: Lars.....	4
9. mar, 10.15-12: Workshop.....	4
Week 5: Bridging the divide: from two cultures, epistemology and de/construction to ontology, enactment and involvement in the generative powers of science and technology.....	4
13. mar, 10.15-12: Ingunn.....	4
13. mar, 14.15-16: Lars.....	5
16. mar, 10.15-12: Kristin.....	5
16. mar, 14.15-16: Workshop.....	5
Week 6: Ways of interfering in the politics of nature.....	5
20. mar, 10.15-12: Lars.....	6
20. mar, 14.15-16: Lars.....	6
23. mar, 10.15-12: Ingunn.....	6
23. mar, 14.15-16: Lars (1. hour) + All (2. hour).....	6
Examples of thesis topics.....	6
Members of staff that may act as thesis supervisors for the specialization .....	7
Practical information.....	7

## **Week 1: Introduction: the role of science in society and in controversies on nature**

The first week will start by introducing students a set of cases of controversies on nature in different cultural, historical and institutional settings, in which science, technology and politics play different roles, will be presented.

### **13. feb, 10.15 - 12: All**

Presentation of the course and of tutors, potential supervisors and thesis topics.

Introducing science studies: 4 images. (15 minutes each).

### **13. feb, 14.15 - 16: Silje Rem**

Lecture: Unpacking a controversy. *An ESST-thesis: Silje Rem presents her work on GM-Food*

Literature: Silje Rem (2002) *Biotechnology and Food Security. Can GM tilpias ensure improved access to food?* TIK, University of Oslo / University of Maastricht

### **16. feb, 10.15 - 12: Lars + all**

Lecture: Unpacking a controversy. *The Barents Sea – Discussion*

### **16. feb, 12.15 - 16: Kristin**

Seminar: From ‘the two cultures’ and critiques of positivism to critical epistemology, social construction and STS

Literature:

Jürgen Habermas, “Appendix. Knowledge and Human Interests: A General Perspective” i *Knowledge and human interests*, Beacon Press, Boston 1971(1968) [PDF](#)

Asdal, Kristin, “Returning the Kingdom to the King. A Post-Constructivist Response to the Critique of Positivism”, *Acta Sociologica*, vol. 48 (3): 253-261. [PDF](#)

Extra:

*C.P Snow, The two cultures, 1993, (1959)*

## **Week 2: Science as social relations: Critiques of expertise, matter of fact natures and science as ideology**

The class meetings this week deal with different ways in which the power of science and technology became addressed in the 20<sup>th</sup> century; different ways of approaching controversies on nature as political matters; and different ways of problematizing science and technology as involved in doing politics. We also start unpacking the theoretical resources, analytical tools and methodological approaches mobilized in different approaches.

### **20. feb, 14.15 - 16: Ingunn**

Seminar: Marxist critiques of expertise, ideology and depolitization

Literature:

Soper, Kate: ‘Nature/’nature” in Robertson, G et al (eds) *FutureNatural . Nature, science, culture*, pp. 22-34. London, Routledge, 1996. [PDF](#)

Smith, Neil: ‘The production of nature’ in Robertson, G et al (eds) *FutureNatural . Nature, science, culture*, pp. 35 – 54. London, Routledge, 1996. [PDF](#)

### **23. feb, 10.15 - 12: Lars**

Seminar: Feminist and anti-racist critiques of naturalizations and exclusions

Literature:

Haraway, Donna. (1986). Primatology is politics by other means. In Ruth Bleier (Ed.), *Feminist Approaches to Science*. London: Pergamon Press. [PDF](#)

Thompson, Charis 1999 "Confessions of a Bioterrorist: subject position and reproductive technologies" in *Playing dolly : technocultural formations, fantasies, and fiction*, E. Ann Kaplan and Susan Squier (eds), New Brunswick: Rutgers University Press. [PDF](#)

### **Week 3: The emergence of the new nature of science, of matters of fact, and of nature/science as arbiter**

In the second week students will deal with 17<sup>th</sup> and 18<sup>th</sup> century forms of nature and controversies; with the history of the emergence of experimental science and matters of fact; the social, political and religious conflicts they were enrolled in; and the institutional reordering in which they were involved.

### **27. feb, 10.15 - 12: Lars**

Seminar: The emergence of experimental science, matters of fact, and a modern world order.

Literature:

Shapin, Steven and Schaffer Simon (1985) Chapter II, "Seeing and Believing" in *Leviathan and the air-pump*, Princeton: University Press. [PDF](#)

Latour, Bruno (1990) "Postmodern? No, simply amodern: steps towards an anthropology of science." *Journal for the history and philosophy of science* 21, 1, 145-71. [PDF](#)

### **27. feb, 14.15 - 14: Brita**

Seminar: The nature of nature – the transition from moral and lively natures to modern matter of fact natures.

Literature:

Schaffer: "The Earth 's Fertility as a Social Fact in Early Modern Britain" in Teich, Mikulás [Hrsg.], Porter, Roy [Hrsg.], Gustafson, Bo [Hrsg.]: *Nature and society in historical context*, 1997. [PDF](#)

Daston, Lorraine: "The Nature of Nature in Early Modern Europe", *Configurations* vol. 6, nr. 2 (1998) 149-172 **WEB:** <http://muse.jhu.edu/journals/configurations/v006/6.2daston.html>

### **2. mar, 10.15 - 12: (Tore T.)**

Excursion to the Norwegian Board on Technology

### **2. mar, 14.15 - 16: Workshop**

Workshop: Individual presentations of sketch of themes, research questions, possible case studies and sources of data for the students' research

### **Week 4: Public Involvement in Science**

So if natural realities emerge or become produced in social practices and processes of interpretation and representation, and so are political matters, and the sciences are powerful actors in these processes, what are the different responses to this condition? What answers and ways of handling this condition have been proposed? How have the challenges been articulated? What roles have been assigned to science, technology, and other actors, including

social sciences, politics and civil society? These are questions that we'll start dealing with this week. And again we also attend to the theoretical resources, analytical tools, methodological approaches and forms of data mobilized in different approaches.

### **6. mar, 10.15 - 12: Lars**

Seminar: Public Understanding of Science, Public Concern with Science and Public Involvement in Science.

Literature:

Wynne, Brian, "Public Understanding of Science" in *Handbook of Science and Technology Studies*, Jasanoff et al eds [PDF](#)

Nelkin, Dorothy "Science Controversies: The Dynamics of Public Disputes in the United States", in *Handbook of Science and Technology Studies*, Jasanoff et al eds. [PDF](#)

### **6. mar, 14.15 - 16: Lars**

Seminar: Public Involvement in Science and Democratization of Science and Technology approaches

Literature:

Mark Elam, (2005) "When Scientists Meet Film-Makers: Inventing a Swedish Approach to Public Engagement with Biotechnology", *Acta Sociologica* 2005 48: 237-251. [PDF](#)

Casper Bruun Jensen, (2005) "Citizen Projects and Consensus-Building at the Danish Board of Technology: On Experiments in Democracy", *Acta Sociologica* 2005 48: 221-235. [PDF](#)

### **9. mar, 10.15 - 12: Workshop**

Workshop: Individual presentations of sketch of themes, research questions, possible case studies and sources of data for the students' research

## **Week 5: Bridging the divide: from two cultures, epistemology and de/construction to ontology, enactment and involvement in the generative powers of science and technology**

The seminars this week will engage with a set of moves in science studies that challenge the divide between 'the two cultures' of science and engineering on the one hand, and of the social sciences and the arts and humanities on the other – and with it also the distinction between nature and culture. This opens up the possibility for moving beyond the de/constructions of science and technology, to tracing natures as generated and emerging in particular sociomaterial practices. These include, but are not reducible to scientific and technological practices. They also include enactments of nature in social science and humanities' research; in the different 'apparatuses' or 'technologies' of politics and administration; and in cultural practices and institutions such as museums, film and fiction.

### **13. mar, 10.15 - 12: Ingunn**

Seminar: The turn to ontology and the laboratory as site for the making of nature

Literature:

Knorr-Cetina, Karin: 'Laboratory Studies. The cultural approach to the study of science' in Sheila Jasanoff et al (eds) *Handbook of Science and Technology Studies*, pp. xx, London, Sage. [PDF](#)

Latour, Bruno: 'Give me a laboratory and I will raise the world!' in *Science Observed*, ed Karin Knorr-Cetina and Michael Mulkay, pp 141-170. Beverly Hills, Sage, 1983. [PDF](#)

### **13. mar, 14.15 - 16: Lars**

Seminar: Turning outwards again: From social construction of natural facts to co-productions of science, politics and natures

Literature:

Collins, Harry (1996) In Praise of Futile Gestures: How Scientific is the Sociology of Scientific Knowledge?, pp. 229-244, *Social Studies of Science*, Vol. 26, No. 2, Special Issue on 'The Politics of SSK: Neutrality, Commitment and beyond', May, 1996 [PDF](#)

Brian Wynne (1996) "SSK's Identity Parade: Signing-Up, Off-and-On" in *Social Studies of Science*, Vol. 26, No. 2, Special Issue on 'The Politics of SSK: Neutrality, Commitment and beyond'. (May, 1996), pp. 357-391. [PDF](#)

**BACKGROUND:** Pam Scott; Evelleen Richards; Brian Martin, "Captives of Controversy: The Myth of the Neutral Social Researcher in Contemporary Scientific Controversies" in *Science, Technology, & Human Values*, Vol. 15, No. 4. (Autumn, 1990), pp. 474-494. [PDF](#)

### **16. mar, 10.15 - 12: Kristin**

Seminar: The technologies of politics and their natures

Literature:

Andrew Barry, kap 1, "The technical and the political", p.1-33 i *Political Machines*, The Athlone Press, London and New York 2001 [PDF](#)

Kristin Asdal, "Re-inventing politics of the state. Science and the politics of contestation", forthcoming i Asdal, Brenna, Moser (eds) *Technoscientific cultures. The politics of intervention*, - **WEB:** <http://www.tik.uio.no/natureculture/papers/re-inventingpolitics.pdf>

Extra:

Michel Foucault: "Governmentality" i Graham Burchell, Colin Gordon og Peter Miller (eds): *The Foucault effect. Studies in Governmentality*, Chicago 1991, p. 87-104.

### **16. mar, 14.15 - 16: Workshop**

Workshop: Working on approaches, methods, analytical tools and theoretical resources

### **Week 6: Ways of interfering in the politics of nature**

The infamous 'Sokal affair' attacked science studies for undermining science and not least public trust in science and the possibility of rational, science based policy. In this way, science studies with its alleged relativism would become implicit in the failure to come to consensus and closure in international negotiations over climate issues, and to commit states and industries to change their current policy regimes. The class meetings this week will engage with these charges and challenges to science studies, and introduce students to the most current debates and responses, as well as ways of working on from them in non-relativist ways.

## **20. mar, 10.15 - 12: Lars**

Seminar: the Sokal affair and its responses

Literature:

Alan Sokal (1996) "Transgressing the Boundaries: Towards a Transformative Hermeneutics of Quantum Gravity in *Social Text*" #46/47, pp. 217-252 (spring/summer 1996) **WEB:**

[http://www.physics.nyu.edu/~as2/transgress\\_v2/transgress\\_v2\\_singlefile.html](http://www.physics.nyu.edu/~as2/transgress_v2/transgress_v2_singlefile.html)

More on the controversy at [http://en.wikipedia.org/wiki/Sokal\\_Affair](http://en.wikipedia.org/wiki/Sokal_Affair)

## **20. mar, 14.15 - 16: Lars**

Seminar: The move from matters of fact to matters of concern and the parliament of things.

Literature:

Bruno Latour (2004) "Why Has Critique Run out of Steam? From Matters of Fact to Matters of Concern", in *Critical Inquiry*, Volume 30 no. 2. **WEB:**

<http://www.muhenberg.edu/mgt/provost/frg/LatourCriticalInquiry.pdf> (Also as local PDF)

## **23. mar, 10.15 - 12: Ingunn**

Seminar: Indigenous knowledge systems and post-colonial knowledge practices

Literature:

Verran, Helen 'A postcolonial moment in science studies: Alternative firing regimes of environmental scientists and aboriginal landowners', in *Social Studies of Science*, 32/5-6, 2002, pp. 729-762. **PDF**

Verran, Helen, and Turnbull, David, 'Science and other indigenous knowledge systems' in Sheila Jasanoff et al (eds) *Handbook of science and technology studies*, London, Sage, pp. 115-139. **PDF**

## **23. mar, 14.15 - 16: Lars (1. hour) + All (2. hour)**

Seminar: Doing ontological politics

Literature:

John Law, (2004) "Enacting Naturecultures: a Note from STS", published by the Centre for Science Studies, Lancaster University, Lancaster LA1 4YN, UK, **WEB:**

<http://www.comp.lancs.ac.uk/sociology/papers/law-enacting-naturecultures.pdf> (Also as local PDF)

## **Examples of thesis topics**

This list presents a selection of thesis topics that are related to the subject matter of Science and Politics in Controversies on Nature, based on the expertise of the academic staff members of the Centre for Technology, Innovation and Culture

- Biodiversity and indigenous knowledges
- Politics of food
- The technologies of politics on nature
- Historical cases: deforestation, pollution, extinction of species...
- Woolfs and other wildlife
- public making of nature in science centres and museums
- Past or present cases handled by the Norwegian Board of Technology
- Controversies on nature in public discourses in media, in fiction, or film

## **Members of staff that may act as thesis supervisors for the specialization**

[Dr. Kristin Asdal](#)

[Dr. Brita Brenna](#)

[Dr. Beate Elvebakk](#)

[Dr. Ingunn Moser](#)

[Dr. Sissel Myklebust](#)

[Dr. Lars Risan](#)

[Dr. Olav Wicken](#)

### **Practical information**

Starting date of the second semester course:

Contact: [Håkon Skogli](#). Tel 00 47 22 84 16 22

Course responsible is Post.doc. [lars.risan@tik.uio.no](mailto:lars.risan@tik.uio.no)

The course is available for ESST students specially, and master students generally (upon application). The course serves as introduction to the specialization, and as a complete 20 ECTS course for those passing course essay.