



# FAK3120 Comparative Environmental History of Large Scale Technologies in the 20th Century 7.5 credits

Jämförande miljöhistoriska studier av storskaliga teknologier under nittonhundratalet

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

## Establishment

Course syllabus for FAK3120 valid from Spring 2019

## Grading scale

P, F

## Education cycle

Third cycle

## Specific prerequisites

Eligible applicants are students who meet the requirements for admission to graduate/PhD studies in history or other humanities and social sciences. Students should have progressed with their thesis work and be able to draw upon substantial primary material for the writing exercises.

## Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

## Intended learning outcomes

This course intends to train excellent researchers and writers and teaches critical reading skills. After completing the course, students will see the larger connections between their own work and the work of others. Students will have gained an overview over specific large scale technologies: transport, hydroelectricity, agriculture, mining and metallurgy, energy and nuclear power. Building on historical events and ideas, students will be able to understand continuity and change in engineering approaches, world view, scientific concepts, public awareness and engagement.

Students will acquire tools for research and writing: from identification of a topic and sources to be consulted to critical writing in an iterative and cumulative fashion.

In a synthesis of thematic overview and writing skills students will be prepared to discuss major actors, institutions, and their concerns. Students will be able to add to the discussion from their own reading in primary sources from their own subject areas.

## Course contents

This course examines large scale technological systems in the US, former Soviet Union, Brazil, China, Germany and Sweden (based on the work of course participants). We will consider how economy, polity, ideology, engineering culture and attitudes toward nature have shaped such technologies as hydroelectric power stations, roads and railroads, nuclear reactors and agricultural technologies. We will also examine their social and environmental impacts. We will pay attention to theoretical issues in the history of technology and environmental history, discuss research approaches and the kinds of primary sources available, and we will consider strategies for good- and efficient writing.

## Disposition

Preparation of course material; preparation of research tasks; regular attendance; active participation; four writing assignments which will be concluded with a research paper (ca. 25 pages). Written instructions will be handed out for each assignment. On each assignment, participants will receive extensive bibliographic, editorial and substantive comments.

## Course literature

The course focuses on research and writing, and the course literature is extensive. Among other literature we read: Ted Steinberg, *Down to Earth: Nature, Agency, and Power in History*, *American Historical Review* 107 (2002) 3: 798-820; Sheila Jasanoff, *Biotechnology and Empire: The Global Power of Seeds and Science*, *Osiris* 21 (2006) 1: 273-292; Patri-

cia Adams/Gráinne Ryder, China's Great Leap Backward: Uneconomic and Outdated, the Three Gorges Dam Will Stunt China's Economic Growth, *International Journal* 53 (1998) 4: 687-704; Matthias Heymann, Signs of Hubris: The Shaping of Wind Technology Styles in Germany, Denmark, and the United States, 1940-1990, *Technology and Culture* 39 (1998) 4: 641-670; Gabrielle Hecht, Africa and the Nuclear World: Labor, Occupational Health, and the Transnational Production of Uranium, *Comparative Studies in Society and History* 51 (2009) 4: 896-926.

## Examination

- UPP1 - Essay, 7.5 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

## Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.