



Course analysis: AK1205 Science Goes Fiction: Science Fiction, Film and Technological Futures in a Historical Perspective, VT2025

Division of History of Science, Technology and Environment

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Changes made since previous course offering

The course explores different genres of science fiction regarding their statements, motifs, and visions about present and future scientific and technological change. The aim is to introduce students to questions, concepts, and tools to explore how science fiction has reflected and stimulated discourses about different roles of science and technology in society. Through works of science fiction, the students explore the history of science and technology, to understand and to critically reflect on scientific and technological developments. The course touches upon selected themes in science fiction, such as space science and fiction; technoscientific visions in biomedicine and genetics; technologized war; cyborg fiction; environmental disaster and postapocalyptic scenarios; artificial intelligence and the relations between humans and machines. The course also addresses the media and formats of science fiction; social relations of gender, ethnicity, and race; ethics and sustainability of science and technology.

The course sessions alternated between thematic lectures (8) and in-depth study seminars (4). Each lecture is concerned with, or connected to, an exemplary science fiction film. Students prepared for the lectures by viewing the film and by working with additional text material. Students also handed in short written assignments for each lecture, discussing the films and the literature. The seminars gave the students the opportunity to discuss these and other lectures, films, and readings in more depth and through their own work. During the seminars students gave each other feedback on their work.

After the constraints of online teaching during the pandemic in 2020 and 2021, and partly in 2022, the course has moved fully back to KTH Campus. While some of the structural changes introduced during the pandemic to adjust the course to online teaching were retained, e.g. e-learning tools like Mentimeter, and organizing peer-review exercises through Canvas, the assignment formats have been adapted again to on-site teaching.

I put emphasis on a variety of tasks beyond essay writing: For seminar 1, annotated film clips, presented and discussed in class; for seminar 2, academic posters and oral presentation in class; for seminar 3, field notes (a log book), a visual representation

(graph/diagram/flowchart) and a written reflection; for seminar 4, an essay draft and eventually a course essay in which the students analyzed a science fiction film/television series/novel/comic of their own choice, to demonstrate how well they can relate their topic to the themes, perspectives and approaches discussed in the course. The 'essay guide' on what makes a good essay and what will be assessed for grading was revised.

I held 5 course lectures myself and taught all 4 seminars. 3 guest lecturers were employed who provided 1 lecture each. As course responsible teacher I was in close contact with the guest lecturers by email and in person to prepare for their lectures. Possible class formats were discussed with each guest lecturer. The course responsible teacher was present during all but one guest lectures. The film and readings for each class were selected based on the lecturers' suggestions. The students' written assignments were forwarded to the lecturers on the day before their lecture, so that they could prepare for student interaction in class. After the lectures, the successful and the problematic parts of the set-up were discussed with the guest lecturers.

Some changes in the course design were introduced in 2025, following students' requests upon the course evaluation in 2024, which in turn answered to changes made in 2024:

- grading: a class activity grade (25 %, 1 of 4 partial grades) was re-introduced
- a ChatGPT Policy was included in the course PM
- links to all assigned movies, to stream online for free, were included
- I included small written research tasks for each week.

In 2024, students voiced that they perceived the task of setting up a blog as technically challenging. Accordingly, for 2025, as classes had returned fully to on-site teaching (no hybrid or online classes), I adapted the assignments. Instead of the blog assignment and group work around setting up and publishing a blog online, all assignments were individualized and carried out offline, thus avoiding difficult technicalities.

Students in 2024 wished to present their poster in class digitally via projector. However, I let the poster session continue to follow the conventional presentation format of presenting the printed-out poster to the group. To handle a group of 20 students, students were divided in two groups, shared between two teachers.

Students in 2024 perceived the instructions for the final essay as too vague. I revised the essay guide accordingly for 2025.

Students in 2024 wished to see more interaction, group work and more discussions in and out of the classroom (and during the lectures). The action I took in 2025 involved instructing the lecturers to make an extra effort to integrate group work and group discussions. The design fiction lecture included a set of practical examples.



Students in 2024 wished to change the assignment date from 10 am on Mondays to 10 am Tuesdays, to gain more time for preparation: I changed the due-date accordingly to Tuesday morning.

Other changes I introduced to the course included the introduction of two new topics, with two new guest lecturers, one a meta-topic of science fiction (design fiction), the other a new topical lecture on contemporary space extraction. The literature was updated accordingly.

Compilation of course evaluation results

An automatic student course evaluation was carried out on Canvas, with very positive but very low response rates (14% and 24 %). In addition, I carried out a traditional course evaluation on paper on site during the final course event. This self-designed anonymous survey with 12 open evaluation questions and 1 comment section gave good returns. 13 of 16 active students responded (81 %). This was expected – the students attended the classes and seminars regularly. Their hand-written answers to the open questions provided valuable student feedback to work with. The following analysis pays attention to both surveys.

The students and I as course responsible teacher and course organizer discussed all course matters in plenary and individually on site. This included the schedule and deadlines, assignment expectations and guidelines, and any personal issues with class attendance. The students' feedback was always engaged and constructive. I could react immediately and explain or adapt expectations. Canvas worked well as a communication tool.

The student evaluations were overall speaking very positive. My overall impression from this year's course is excellent. The students voiced that they were quite on top of their tasks, well informed, engaged, and mostly well prepared. All active students passed with good grades of B or A (50/50). 4 out of 20 active students dropped out during the course, some due to a lack of time, and sometimes for unknown reasons. From the students' perspective, the workload was perceived as reasonable. One student found the workload too light (corresponding to 4 cp instead of 7,5). Some students reflected on the course literature being too heavy, or too difficult to read, particularly since none of the students, and neither I as main teacher, had English as their first language.

Course coordinator's reflections on what has worked well and what can be developed in the course

From my perspective as course responsible teacher and organizer, the course worked very well for the following reasons:

- Previously introduced changes and course developments took effect. The ChatGPT policy seemed to work quite well. Students indicated/disclosed their use of ChatGPT to improve their English-language assignments. I introduced some practical changes to make it easier for the students to perform their tasks: I provided links to all movies,

to stream them online for free; and I provided small written research tasks on a weekly basis to prompt the students and guide their research.

- The proportion of Life Long Learning students and KTH students changed considerably in this term, and with it the composition and atmosphere of the course. A Mentimeter exercise in the beginning anonymously asked about students' backgrounds: many more LLL students joined the class than in previous years, providing a much broader range of disciplinary backgrounds, knowledges, ages, genders and cultures. The increased diversity along with the absolutely growing number of students has done the course good and contributed positively to the group discussion culture in class. There was a lot of joint creativity in the classroom.
- Students seem to embrace being back on Campus and taking part in a committing learning environment in which they are seen, known, addressed, and appreciated.
- Gender diversity was significantly higher than in previous terms, in connection to the increased number of Life Long Learning students. This created a friendly, lively and open atmosphere in class.
- The classroom we used was terrific. All classes were held in the U-building, which made a huge difference for the class atmosphere (space; seating; light; technical equipment).

The student evaluations were very positive throughout. Students confirmed that this was an interesting, relevant and fun course, with a good structure, engaging teachers, inspiring lectures, sound course organization and clear information and communication, purposeful and fun assignments, a variety of examination forms, and at least partly relevant readings. Students especially enjoyed the peer-review sessions and the group discussions and found them helpful to improve their own work. Students appreciated the feedback from their fellow students and from me as course responsible teacher. Several students wished to have a longer course or a second part of the course on a more advanced level (the course is currently a first cycle course).

There is of room for improvement. From my perspective as course responsible teacher, this concerns:

- The assignment for seminar 3 is too broad and unspecific to be graded sharply. Consequently, the grades for seminar 3 turned out too high. The set-up of the peer review session for seminar 3 needs refinement for the students to prepare their review task better.
- The course ran without a course assistant, as it was prior to the Covid pandemic. The advantages of running the course myself are that everything comes together in one hand (with some assistance when handling larger student groups, see above), and that I get to know the students well and can address them by their names. The disadvantage is that some things take longer than budgeted to be carried out, for example organizing students into pairs for a peer review of assignments, or giving



individual written feedback to all student assignments. The time stress increases as the student group increases.

From the student perspective, some issues recur that are hard to resolve if the learning outcomes are to be maintained: Some seminars were perceived as tedious, some readings as hard to read, too long or boring, and some films as too old (in a history course!). It is also common that some topics were found missing (surveillance; gender in science fiction; cyberpunk, steampunk). Student wishes for poster and essay templates are understandable but also hard to meet without compromising the students' time on task.

Some student feedback I plan to take up concerns the course literature, to reference and use it more in class. There was also an expressed wish for more inclusion of animated films and video games.

Summary of changes to be introduced for the next course

Students highly appreciate the group discussions. They wish to have them also in the lectures. Accordingly, more opportunities for group discussion should be provided.

Students wish to have more time for practical engagement. While a start has been made to include practical examples in the lectures, this approach should be expanded.

The written and graded assignment for seminar 3 needs revision. While all other written assignments are well tested and found meaningful, and all examine different skills to be acquired in the course, seminar 3 is still less coherently defined and examined. While a poster guide and an essay guide are in place for seminar 2 and 4, there is as yet no guide to how to prepare proper 'field notes' watching a film. This is a prioritized task for development.

Brief comment on result of examinations

Some 40 students were registered for the course. Some 20 students started the course, and 20 active students remained. Of these 20, 4 students dropped out after the first half of the course, due to scheduling conflicts or lack of time. 16 students followed the course through and passed successfully, with an overall grade of B or higher.

The results of the students who finished the course exceeded my expectations in terms of course engagement, actual performance on tasks, sociality, and creativity. Course attendance was continuously high. Many students attended more classes than required (75 % attendance requirement).

A continuing problem are the number of no shows and of dropouts – students who do not attend any class and students dropping out of the course after a quarter or half of the course time, although some had submitted assignments that received high grades.