

Course description

History of Science and Technology

1. Course title, ECTS, quarter/semester, contact hours:

History of Science and Technology, 6 ECTS, 3rd quarter, 44 contact hours: lectures (20 hrs.) and seminars (24 hrs.)

2. **Author of the course:** Marina Loskutova (Associate Professor, History Dept., Ph.D.)

3. Course Outline

The aim of the course is to outline the development of science from Renaissance to the late 19th century. In this way the course leaves aside the achievements of the Ancient Greeks, the Chinese, and the Islamic philosophers, on the one hand, and the advancement of science in the 20th century, as latter topics require either an in-depth study of relevant periods in global history, or sufficient competence in respective fields of science that goes beyond secondary school curriculum. Following recent trends in historiography of science and technology, the course will focus not only on individual contributions to the advancement of science and the history of ideas ('inventions' or 'discoveries') but also on scientific communities and research practices, as well as on its social contexts and the purposive use of science. Due to the time limitations, the course will not provide a comprehensive overview of the advancement of science and technology in the 16th-19th century; instead it will focus on a few key events that will serve as case studies. Upon the successful completion of the course, the students will be familiar with basic concepts and approaches in recent historiography in this field. They will also know the key episodes in history of science, both in terms of changing concepts and practices of scientific research, as related to broader societal transformations.

4. Structure and content

	Lectures (hours)	Seminars (hours)
1. Approaches to writing a history of science. Major events in history of science from Renaissance to the late 20 th century	2	2
2. Physics, astronomy and medicine in the Renaissance	2	2
3. The scientific revolution of the 17 th century	6	6
4. Science in the Enlightenment	4	6
5. The Darwinian revolution in life and earth sciences	4	4
6. Chemistry and physics in the 19 th century	2	4

5. **Prerequisites:** Students should be familiar with the general contours of European history from the Renaissance to the late 19th century. Basic knowledge of natural sciences within the scope of secondary school curriculum is also assumed.

6. Assessment

- Team presentations - 40%
- seminar discussions - 20%
- written exam (2 hrs) - 40%