



## Faculty of Applied Sciences

### FSAB1801 Critical History of Science and Technology

[15h+15h exercises] 2 credits

This course is taught in the 1st semester

**Teacher(s):** Patricia De Grave, David Vanderburgh  
**Language:** French  
**Level:** First cycle

#### Aims

By the end of the course, students will be able to:

Understand the contemporary context of engineering, its "double" participation in the scientific and technological worlds, in the light of its historical roots;

Understand engineering (from its roots to the present day) as integrally related within the complexity of social relations, economic interests and cultural transformations;

Deploy basic knowledge regarding the historical development of science and technology (acquiring "the basics" of the history of engineering culture);

Become familiar with a critical and analytical approach to the development of engineering disciplines.

#### Main themes

The course covers basic facts concerning:

- the emergence of science ("pure" knowledge of nature)
- the development of the interface between science and technology (knowledge AND the transformation of nature)
- the development of the science/technology/economy interface (knowledge AND transformation of nature AND the economic exchange).

The course will develop the understanding of the current situation of engineering as a product of history as a driving force in contemporary society.

The course will question and evaluate the disciplinary autonomy of the scientific approach, looking at what factors influence or have influenced its development.

The course will put the triple relation of science/technologie/economy into critical perspective.

#### Content and teaching methods

The course covers basic facts concerning:

- the emergence of science ("pure" knowledge of nature)
- the development of the interface between science and technology (knowledge AND the transformation of nature)
- the development of the science/technology/economy interface (knowledge AND transformation of nature AND the economic exchange).

The course will develop the understanding of the current situation of engineering as a product of history as a driving force in contemporary society.

The course will question and evaluate the disciplinary autonomy of the scientific approach, looking at what factors influence or have influenced its development.

The course will put the triple relation of science/technologie/economy into critical perspective.

#### Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

No pre-requisite for this course.

Evaluation based on intermediate and final examinations and a short, reflective group exercise.

**Other credits in programs**

<b>ARCH11BA</b>	Première année de bachelier en sciences de l'ingénieur, orientation ingénieur civil architecte	(2 credits)	Mandatory
<b>FSA11BA</b>	Première année de bachelier en sciences de l'ingénieur, orientation ingénieur civil	(2 credits)	Mandatory
<b>SINF11BA</b>	Première année d'études de bachelier en sciences informatiques	(2 credits)	Mandatory
<b>SINF12BA</b>	Deuxième année d'études de bachelier en sciences informatiques	(2 credits)	