



# Exchange programme Vrije Universiteit

Vrije Universiteit Amsterdam - Exchange programme Vrije Universiteit - 2022-2023

## Exchange

Vrije Universiteit Amsterdam offers many English-taught courses in a variety of subjects, ranging from arts & culture and social sciences, neurosciences and computer science, to economics and business administration.

The International Office is responsible for course approval and course registration for exchange students. For details about course registration, requirements, credits, semesters and so on, please [visit the exchange programmes webpages](#).

# Philosophy of Science and Ethics

Course Code	AB_1217
Credits	6.00
Period	P6
Course Level	200
Language Of Tuition	English
Faculty	Faculty of Science
Course Coordinator	dr. J.S. Bernstein
Examiner	dr. J.S. Bernstein
Teaching Staff	dr. J.S. Bernstein
Teaching method(s)	Study Group, Partial Exam, Lecture

## Course Objective

At the end of this course you will be able to

1. Remember and explain several basic concepts, problems and debates in
  - a. philosophy of science: problem of demarcation, problem of induction, scientific paradigm, scientific explanation and reduction, and values in science, among others.
  - b. ethics: consequentialism, deontology, virtue ethics, care ethics, moral judgment and argument, responsible research, autonomy, personhood, among others.
2. Determine the importance of these debates to contemporary biomedical science.
3. Analyze and evaluate
  - a. the different positions in these debates
  - b. the normative assumptions inherent in scientific research
4. Apply these debates and concepts to biomedical science.
5. Read and analyze philosophical texts.

Furthermore, in this course you further develop your academic attitude (one of the main academic skills). You will

6. be capable of critical reasoning
7. have insight in and be able to reflect on philosophical, ethical and societal developments in biomedical science

## Course Content

This course has two central components -- Philosophy of Science and Ethics -- which correspond to two main aims. In the Philosophy of Science unit, students will develop the ability to reflect critically on the nature and practice of science, with an emphasis on biomedical science. In the Ethics unit, students will explore various ethical issues raised by the practice of biomedical science and the use of products and technologies developed by biomedical scientists. Students will learn how to critically read philosophical texts, which involves understanding the structure of the authors' arguments developing their own objections to or amplifications of the authors point of view. Students will also be encouraged to (a) apply the philosophical concepts they will learn to their own work and (b) to utilize clear and sound argumentation in their own thinking and writing.

The philosophy of science unit will start with a discussion of the distinguishing features of science as a form of inquiry. Topics that

will be covered include the nature of scientific reasoning and explanation and the relationship between scientific theories and reality (the realism/antirealism debate). We then shift to issues related to values in science. The relevant topics there include the role of non-epistemic values in science, science and society, and scientific progress.

The focus in unit two will be on ethical questions raised by the practice of biomedical science and the use of its products. After a very brief introduction to ethics, we'll explore several specific issues, such as genetic enhancement, moral status, personhood and brain death, and current issues.

## Additional Information Teaching Methods

Teaching consists of 2-hour lectures (8 in total) and 2-hour seminars (4 in total).

## Method of Assessment

Assessment consists of three parts:

Portfolio  
Presentation  
Final exam

Portfolio: Each week, students have to write and hand in short answers to content questions, covering material of that week.

Presentation: This is a group assignment in which students have to pick a concept or theory from the course and apply it to an aspect of their previous studies. Students also have to provide peer-feedback on another student presentation.

Final exam: This exam will be a mixture of multiple choice and several short essay questions.

This course is assessed on a pass/fail basis. In order to pass the course, each of the three assessments has to receive a pass.

## Literature

1. PS: Samir Okasha, *Philosophy of Science: A Very Short Introduction* (Oxford: Oxford UP, 2016 (2nd edition)). (purchase)
2. Seminal articles, both classical and contemporary, from philosophy of science and from ethics. (canvas)

## Additional Information Target Audience

Compulsory course for second-year BSc Biomedical Sciences students.