

CANG 9139/9239
AN EXPLORATION OF SCIENTIFIC CONTROVERSIES



PURPOSE & SCOPE

This course is intended as an independent companion to “An Introduction to Scientific Controversies”. Although some background knowledge about the history and philosophy of science could prove useful, you do not need to have taken the introductory course beforehand.

Our purpose is to examine key controversies in the history of science and draw out their philosophical implications. In other words, we will practice the approach to the history and philosophy of science known as “historical epistemology”, which consists in asking general philosophical questions about science based on specific historical episodes.

The controversies we will examine range from medicine to artificial intelligence and from antiquity to the present day. They will feature as a recurring theme one of the essential tensions at the heart of science—the tension between rationalism and empiricism, or reason and experience, or theory and experiment.

FORMAT & SKILLS

This course is structured as a flipped classroom, which means that you will do most of your work autonomously before class. This will involve studying textual and audiovisual documents on a website and writing down some initial thoughts about a controversial question raised by the documents. Class will then take place over a condensed time span, during which you will confront your thoughts with those of your classmates and build in the process a shared understanding of the issues at stake.

This course will actively involve the five skills necessary to improving your English language proficiency before or after taking the Cambridge English: C1 Advanced (or any other certification). Every week ahead of class, you will practice your listening, reading, and writing skills. Class time will subsequently give you the opportunity to practice your speaking and interaction skills.

In addition to your language skills, you will also develop your cognitive and argumentative skills. At the cognitive level, the written and audiovisual documents you will study before class will consolidate your ability to understand complex and challenging ideas about the history and philosophy of science. At the argumentative level, the polemical statements you will write before class will strengthen your capacity to articulate clear and strong positions on controversial questions, while the class discussions will encourage you to voice nuanced opinions and reconcile conflicting viewpoints.

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The full contents of the course are accessible at this address:

<https://scientificexplorations.wordpress.com/>