

COURSE DETAIL

ENERGY MARKETS

Country

Netherlands

Host Institution

Utrecht University

Program(s)

Utrecht University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Environmental Studies

UCEAP Course Number

140

UCEAP Course Suffix**UCEAP Official Title**

ENERGY MARKETS

UCEAP Transcript Title

ENERGY MARKETS

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

The course provides students with a clear understanding of how basic economic principles, technical constraints, and sustainability goals shape the design, operation, and outcomes of markets for energy commodities, namely, electricity and natural gas. The course first illustrates how the price of energy is set at the wholesale and retail level and how this price accounts for technical constraints and environmental policies (taxes/cap-and-trade).

Then, the course explores how market agents interact in these markets and, most importantly, the potential consequences of such behavior on society at large (e.g., on the level of prices paid by final users and on investments in renewable technologies, etc.). While students acquire skills for making optimal techno-economic decisions in other courses, this course takes them a step further and they learn that the outcome of their individually optimal choices strongly depends on the decisions made by others (competition and cooperation are both possible). In line with the inherently multidisciplinary approach required for the energy transition, the course offers students from different tracks the opportunity to productively work together and learn from one another. Useful prior knowledge derives from the following courses: Mathematics and Systems Analysis (GEO1-2411), Science of Energy Technologies (GEO1-2203), Policy Evaluation and Design (GEO2-2113), and Principles of Economics (GEO1-2255 or GEO1-2435).

Language(s) of Instruction

English

Host Institution Course Number

GEO3-2430

Host Institution Course Title

ENERGY MARKETS

Host Institution Course Details

<https://osiris-student.uu.nl/onderwijscatalogus/extern/cursus>

Host Institution Campus

Utrecht University

Host Institution Faculty

Geosciences

Host Institution Degree

Host Institution Department

Sustainable Development

Course Last Reviewed

2025-2026

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