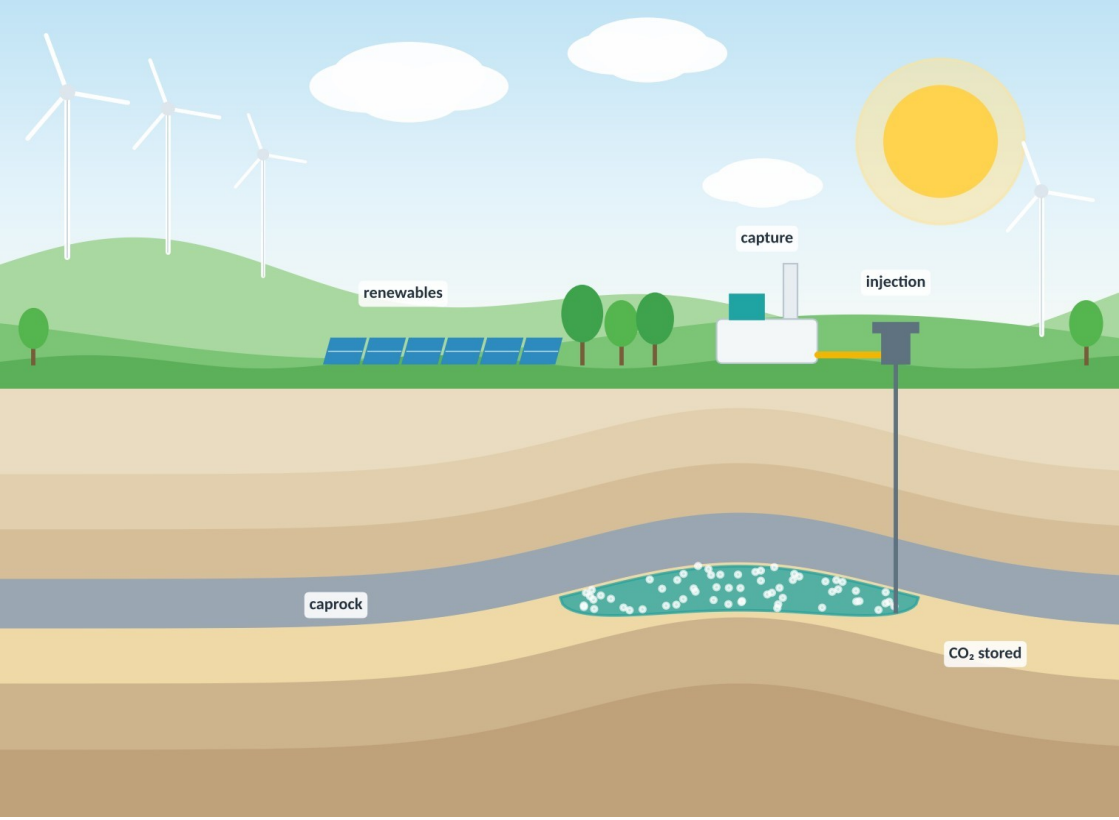


UNIVERSITY OF ZAGREB · SAPIENZA UNIVERSITY OF ROME · CO2GeoNet

International Master in

CO_2 Geological Storage

One year. Two cities. A career in keeping carbon underground.

Your questions, answered

60	2	Mar–Dec	€2,200	Joint
ECTS	cities	2027	tuition	diploma

Apply from the publication of the official call until the end of January 2027

Supported by CO2GeoNet, the European Network of Excellence on CO_2 Geological Storage

THE MASTER IN ONE MINUTE

Q Is the master running again?

Yes. The 2026/27 edition starts in March 2027 and ends with the thesis defence in December 2027.

Q Who organises it, and what do I get at the end?

60 ECTS and a joint diploma. The University of Zagreb and Sapienza University of Rome run it together, supported by CO2GeoNet, the European Network of Excellence on CO_2 Geological Storage. Your diploma carries the signatures of both rectors.

Q What language is it taught in?

English, from the first lecture to the thesis defence.

Q Is there a graduation ceremony?

Yes. Graduates receive their diplomas at the 2028 CO2GeoNet Open Forum, and CO2GeoNet covers the costs (fee and 2 nights accommodation).

GETTING IN

Q Can I apply?

Very likely. The programme is designed for graduates with a master's degree (300 ECTS in total) in Earth sciences or petroleum science and engineering, and it is open to related fields too.

Q I don't have a geology degree. Can I still apply?

Yes. With a basic grounding in geoscience, you'll have a short online interview so we can make sure you'll follow the lectures comfortably. Generally, applicants who take it are accepted.

Q My degree is from outside the EU. Is that a problem?

No. The programme's Scientific-Educational Council assesses non-EU degrees for admission.

Q What do I need to send?

Three documents, in English: a motivation letter, your CV and official evidence of your degree.

Q When and where can I apply?

Until the end of January 2027. This call is published on the Faculty's study page: www.rgn.unizg.hr/en/ccs-master. Can't wait? Email us and we'll add you to our list of applicants.

Q What happens after I apply?

We confirm whether you're eligible. You then receive the payment details. If you come from outside the EU, we help as far as we can with paperwork and information on accommodation.

1	2	3	4
Apply	Short interview, if needed	Eligibility confirmed	Pay and enrol

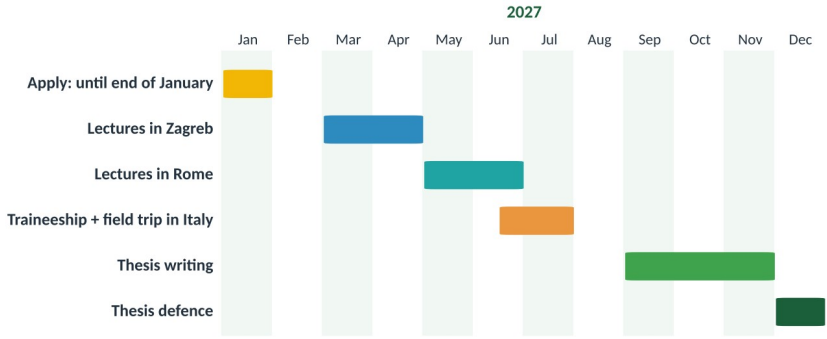
Q What will I learn?

Everything it takes to store CO_2 safely underground. Fourteen modules, taught in English by lecturers from the partner universities and CO2GeoNet research institutes, prepare you to work with every specialist on a CCS project.

00	**Geoscience for engineers** The geology a CCS engineer needs: rocks, sedimentary basins, structures and the subsurface settings that can hold CO_2 safely.
01	**Introduction to CO_2 geological storage and social aspect** The whole storage chain at a glance, its role in tackling climate change, and how the public and stakeholders see the technology.
02	**CO_2 capture and transport; present-day industrial use of CO_2** How CO_2 is captured from industrial sources, the pros and cons of each technology, how it is transported, and where capture runs today.
03	**Introduction to exploration geophysics** Seismic acquisition, processing and interpretation for site characterisation: identify traps and build 3D geological models in hands-on software exercises.
04	**Drilling and wells** Rigs, drilling muds, well trajectories, well control, testing and completions, with practical design calculations for mud weights and casing.
05	**Introduction to reservoir engineering** Multiphase flow in porous rock, PVT behaviour of CO_2-rich fluids, injectivity and fracture pressure, material balance and decline-curve analysis.
06	**Storage site selection and capacity estimates** From basin screening to site characterisation: estimate capacity in saline aquifers, depleted fields, coal seams and salt caverns; judge reservoir and caprock quality.
07	**Numerical modelling of CO_2 storage** Build static models and simulate CO_2 injection: migration, pressure build-up, dissolution and trapping, grid choice, upscaling and uncertainty.
08	**Advanced CCUS: EOR and CO_2-plume geothermal** UPDATED FOR 2027 CO_2 as a working fluid: enhanced oil and gas recovery, CO_2-plume geothermal energy, miscibility and PVT simulation, ending with your own injection project.
09	**Storage risks** Risk assessment across a project's life: hazards, possible leakage pathways, environmental impacts, and the mitigation and remediation plans that keep storage safe.
10	**Geophysical monitoring** Seismic, electrical and electromagnetic methods to characterise and monitor storage sites: survey design, field acquisition, processing and inversion, with field work.
11	**Geochemical monitoring** Soil-gas, groundwater, atmospheric and marine techniques to verify storage, detect and quantify leaks and check remediation, with hands-on field exercises.
12	**Geomechanical aspects and passive seismics** How injection changes stresses in reservoir and caprock, fault stability and induced seismicity, and how passive seismic monitoring picks up small events.
13	**Economic and regulatory aspects of CCS and cross-cutting issues** Economics and regulation of CCS, plus CO_2 use options: mineral carbonation, storage in basalts, bio-CCS and negative emissions, industrial clusters.

The same subsurface skills are used in geothermal energy and underground energy storage.

TIME AND PLACE



Q When does it start, and how is the year organised?

In March 2027. Teaching runs in blocks of one or two weeks, first in Zagreb, then in Rome, followed by a traineeship and a mandatory field trip in Italy. The thesis follows in autumn, with an in-person defence in December.

STUDYING AND COSTS

Q Can I follow the course online?

Partly. While courses may be held online, the field work in Italy (and the thesis defence) need you there in person.

Q How much does it cost?

€2,200 tuition. Travel, food and accommodation in Zagreb and Rome are not included.

Q How and when do I pay?

After we confirm you're eligible, by bank transfer to the Faculty account, quoting the reference from your confirmation.

Still have a question? Write to us.

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