

Louvain-la-Neuve, 7 March 2017

UCL education

Mission to Mars 2017: UCL Crew 178 en route to Mars via the Utah desert



Mission to Mars Crew 178 is composed of **seven UCL students** and mentored by **Frank De Winne**, a Belgian astronaut and the first European commander of the International Space Station. This is the ninth UCL crew to take part in the adventure, which for them will entail **15 days of simulated life on Mars and seven scientific experiments**.

The goal is to **simulate a scientific mission on Mars** via a base in the Utah desert. Six students will conduct experiments for testing equipment and procedures in conditions that could occur during Martian exploration. The project's main goal is to **identify difficulties scientists might have to overcome** to successfully carry out their experiments on the red planet.

Crew 178 is the ninth crew to take part under the name of 'UCL Mission to Mars', and includes a bioengineer, five engineers, an astrophysicist and a biologist.

Mission experiments:

- [Mobile telecommunication relay](#): testing an innovative solution based on using relay drones.
- [Using x-ray diffraction to characterise soil hydration](#): using x-ray diffraction to characterise rock hydration.
- [Analysing photosynthesis oxygen replenishment](#): testing an oxygen replenishment process in a closed loop.
- [Using seismic refraction to characterise soils](#): assessing the value of seismic refraction.
- [Assessing Mars mission crew muscle loss](#): testing the effectiveness of training exercises and strength tests, in tandem with using a cuff.
- [Muon detection](#): detecting muons in 'Martian conditions', using a portable muon detector provided by the *Université catholique de Louvain*.
- [Drone-assisted mapping and surveying of base surroundings](#): characterising base surroundings using a drone.

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