

AGENCY

Call for applications: Hands-on training week for small satellite design and testing

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ESA / Education / ESA Academy

The [ESA Education Office](#) is inviting university students to apply for an exciting pilot ESA Academy training session to improve their skills in spacecraft hardware and software. Called "CubeSats Hands-on Training Week", it will be held from 26 February to 2 March 2018 at the Training and Learning Centre in [ESEC](#), Belgium.

The Training Week is a great opportunity for students to get hands-on experience with satellites and to apply theoretical knowledge obtained from classroom lectures. Participants will have the opportunity to perform experiments on Educational Satellites (ESAT) and learn how subsystems interact with each other. They will also discover how to conduct Assembly, Integration and Verification (AIV), and how to handle tests using real hardware. The aim of the Training Week is to help students that have new ideas for [educational CubeSat missions](#), or are working on CubeSat projects at a conceptual or preliminary stage. The students will then be able to inject this new knowledge into the early design phase of their own CubeSat projects.

The focus, throughout the Training Week, will be on hands-on learning, with "lab sessions" supervised by staff from Theia Space. These will be complemented by ESA experts giving lectures on the various fields of CubeSat subsystems and testing. As such, this Training Week is an ideal opportunity for students to become familiar with the [Fly Your Satellite!](#) programme.

During the Training Week, the following topics will be covered:

- Space Systems Engineering (lecture)
- ESAT model introduction (lecture)
- Software (lecture & lab session)
- On-Board Data Handling (lecture & lab session)
- Electrical Power System (lecture & lab session)
- Communication (lecture)
- Attitude and Orbit Control System (lecture & lab session)
- Assembly, Integration and Verification (lecture & lab session)
- Satellite Operations (lecture & lab session)
- Satellite Testing (lecture)

During the week, students will have the opportunity to work in groups of two or three on their own ESAT model provided by the ESA Education Office. These are 10cm x 10cm x 10cm models developed by Theia Space, with the specific aim of providing university students with hands-on experience within spacecraft subsystems engineering courses.

Students will be evaluated during the week, and upon completion will receive a certificate and course transcript, allowing them to claim [ECTS credits](#) from their respective universities.

Who can apply?

Students enrolled in university who fulfil the following criteria:

- Aged between 18 and 32;
- A citizen of an [ESA Member or Associate State](#);
- Enrolled as a full-time Bachelor, Master, or PhD student in a university (not graduating before the Training Week);
- Studying an engineering subject.

ESA will cover the cost of accommodation and meals as well as up to 200 Euros for travelling to Redu, Belgium, for each selected student.

How to apply?

- Fill in the [application form](#);
- Upload a motivation letter (PDF, maximum 1 page, no images);
- Upload a CV (PDF, maximum 2 pages);
- Upload a formal recommendation letter (PDF, maximum 1 page including signature, no images) from a university professor or an academic supervisor from the applicant's current university;
- Upload an official copy of academic records (PDF, in English, with the university stamp).
- **The deadline for applications is 8 January 2018, 23:59 CET.**

For more information, please contact esa.academy@esa.int