

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)  
Enabling the Future - Developing the Space Workforce (5)

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“FLY YOUR SATELLITE”: THE CUBESAT PROGRAMME OF THE ESA ACADEMY

**Abstract**

The Fly Your Satellite! (FYS) programme is a recurring hands-on programme of the ESA Academy, created to support university student teams in the development of their own CubeSat, with the objective of offering students the opportunity to acquire practical experience that will complement their academic education. The new edition of FYS consists of two main pillars: “Design Your Satellite Training Weeks”, to support university student teams at an early stage in the development of their CubeSat (Phases A-B-C); and the main stream of the FYS programme, to support student teams at a more advanced stage (Phases D-E).

Students participating in the “Design Your Satellite Training Weeks” are offered lectures focusing on the conceptual mission design, as well as on the objectives expected to be achieved from preliminary and detailed design phases of a space programme. Students are introduced to standards and ESA usual practice in the conduct of a space programme through Concurrent Design Engineering sessions and expert-led classes.

Student teams selected to participate in Phases D-E of the FYS programme are supported by ESA specialists through project reviews and verification campaigns, which are conducted according to ESA professional practice tailored to fit the scope of university CubeSat projects. Support is primarily offered through review of design documentation, supervision of test and verification campaigns, specialist support in the resolution of technical issues, guidance in launch preparation and operations, and regulatory aspects. This support is aimed at enabling a transfer of knowledge and experience from ESA specialists to the students. University teams that are able to demonstrate the successful completion of the verification programme of their CubeSat, as well as their compliance to legal and programmatic requirements, are finally offered the launch of their CubeSat.

In support of its new and expanding activities, the ESA Education Office is fully engaged in the development of new facilities at the ESA Redu Centre in Belgium, which will enable the programme to offer support to CubeSat teams from the design up to the operational phases. Workshops and training courses are organised and offered to the teams in a new training centre, also serving as a concurrent

design facility, while CubeSat verification campaigns will rely on the support from a new dedicated ESA Academy CubeSat Laboratory.