

# inspiring SCIENCE

European science education academy

## European Science Education Academy

[Find further information here](#)

ESEA is endorsed by:



(<http://www.eps.org>)

Visit the ESEA website  
for more information!

<http://esea.ea.gr/>

Save the dates!

### ISE Academy

July 10-15 2016, Marathon, Greece

### Astronomy Adventures

18-22 July – Canary Islands, Spain

### ESA - GTTP Space Awareness Workshop

10-14 October 2016 - Netherlands

### Beyond Earth Orbit

09-14 January 2017, Innsbruck Austria

### Science Through Space and Time

09-14 April 2017, United Kingdom

Questions, comments, ideas?

Contact us:

Ms. Rosa Doran: [rosa.doran@nuclio.pt](mailto:rosa.doran@nuclio.pt)

Mr. Jens Koslowsky: [koslowsky@ea.gr](mailto:koslowsky@ea.gr)

Office Address

Largo Topázios 48,

2785, Portugal.

Tel: +351 21 453 7440

The **European Science Education Academy (ESEA)** is a common effort of the [European Physical Society](#), [Ellinogermaniki Agogi, NUCLIO](#), the [University of Bayreuth](#) and the [Cardiff University](#) to support the modernization and continuous development of STEM (Science, Technology, Engineering and Math) education and training. ESEA provides numerous training activities, tools and resources that will enable teachers in STEM to maximize their efforts in the design of inquiry based learning activities as well as to create motivating and engaging lessons that inspire young pupils and students to take up a career in STEM.

ESEA experts believe that by supporting educators in their professional development we can slowly introduce in classrooms across the world the necessary changes to improve the uptake of science careers. We believe that by modernizing science education and by providing the necessary professional development support we can better prepare students for the world of work, a world that will certainly be very demanding on the necessary skills and competences of future generations.

[Read more here](#)

## Aims and objectives

The aim of the European Science Education Academy is to set the pathway toward a standard-based approach to teaching science by inquiry, to create innovative professional development and training programs and to disseminate advanced methods and exemplary cases to further explore and exploit the unique benefits of the proposed approach in science teaching. At the core of the ESEA overall goal and strategy is its teacher's professional development programme. The programme is focusing on science teachers, instructional leaders and curriculum developers. Facilitating the Inspiring Science Education resources (a series of guidelines, scenarios of practice, tools, online labs and show cases from the numerous European schools) the programme aims to support participants to introduce innovative aspects in their school settings.



More specifically, the objectives are:

- to acquaint participants with the significance and opportunities of inquiry-based science teaching through the use of open and online resources in STEM education;
- to support the continuous professional development of teaching professionals to increase their skills and competences to become innovators and creators of content rather than being users of existing material;
- to enable teachers to successfully find, develop and apply the innovative tools and multidisciplinary teaching techniques that will help them create attractive science lessons and thus foster the interest of their students in science topics;
- to introduce and apply innovative teaching methodologies and use of ICT tools in STEM teaching settings;
- to lead teachers to involve students in finding their own problems, testing ideas, receiving feedback, and working collaboratively with other students or practitioners beyond the school classroom;
- to give teachers the opportunity to interact and work with scientists to develop new learning opportunities for their students.

## The ESEA training activities, workshops and courses – an overview

ESEA training activities are specifically designed for teaching professionals in STEM disciplines (Science, Technology, Engineering, and Mathematics). The common objectives of ESEA training activities are to introduce teachers to implementing inquiry based science education, as well as resource based and project-based teaching approaches. Furthermore, teachers and education professionals will be trained in linking those approaches with the numerous collections of open digital educational resources, in order to design educational scenarios by repurposing existing ICT and online based tools.

ESEA is currently offering the following training activities:

**Inspiring Science Education Academy 2016 –  
10-15 July 2016 – Marathon, Greece**



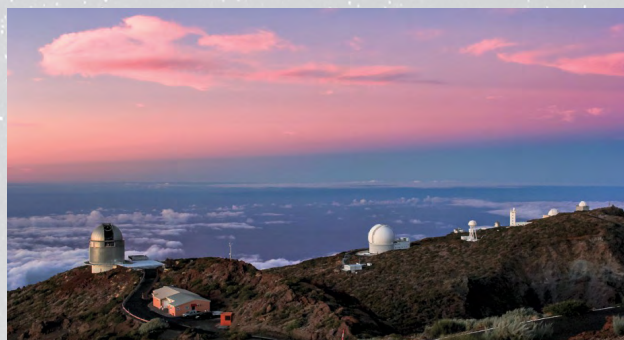
**INSPIRING SCIENCE  
EDUCATION ACADEMY 2016**

The Inspiring Science Education (ISE) Academy is organized by Ellinogermaniki Agogi in Marathon, Greece, just outside of Athens. In this 6-day training event teachers will be trained in **Inquire Based Science Education** and introduced to eLearning tools and resources.

Read more here:

<http://esea.ea.gr/content/ise-academy-2016>

**Astronomy Adventures in Canary Islands –  
18-22 July – Canary Islands, Spain**



**ASTRONOMY ADVENTURES  
IN CANARY ISLANDS**

The training consists of conferences and hands-on workshops on subjects related to astronomy, with particular emphasis on Inquiry-led teaching activities and scientific projects that can be pursued in schools. The programme also includes a full day at the Roque de los Muchachos Observatory.

Read more here:

<http://esea.ea.gr/content/astronomy-adventures-canary-islands>



**ESA - GTTP Space Awareness Workshop –  
10-14 October 2016 – Netherlands**



**ESA - GTTP SPACE  
AWARENESS WORKSHOP**

The European Space Agency (ESA) together with the Galileo Teacher Training Programme (GTTP) are organizing an unique workshop for teachers. Participants at this workshop will have the chance to explore innovative ways to use space science and astronomy in the classroom to engage students in the sciences.

Read more here:

<http://esea.ea.gr/content/esa-gttp-space-awareness-workshop>

**Beyond Earth Orbit: Solar System Exploration and  
Spacesuits – 09-14 January 2017, Innsbruck Austria**



**BEYOND EARTH ORBIT**

This 6-day workshop will provide a state-of-the art overview on solar system exploration: Ranging from robotic mission to the dusty deserts of Mars, the spectacular Saturn System to the ice-worlds of Pluto.

Read more here:

<http://esea.ea.gr/content/beyond-earth-orbit-solar-system-exploration-and-spacesuits>

**Science Through Space and Time –  
09-14 April 2017, United Kingdom**



**SCIENCE THROUGH  
SPACE & TIME**

Learning through ages at the Greenwich observatory, ancient astronomy in Stonehenge, coding with Raspberry Pi to programme rovers on Mars, the workshop is filled with exciting topics that are designed and planned, aiming to open the vastness of imagination of teachers and subsequently their students alike.

Read more here:

<http://esea.ea.gr/content/science-through-space-and-time>



## What is Inquiry Based Science Education (IBSE)?

Inquiry Based Science Education (IBSE) is an essential and important part for pupils and students education. IBSE enables students to develop key science concepts (e.g. big ideas of science) which empower them to understand the events and phenomena of relevance in lives. However, **teaching IBSE entails ambitious learning goals for students and is thus complex and challenging for teachers to enact**. Moreover, many teachers have not experienced IBSE instruction as learners and thus need guidance in enacting this type of instruction. Teachers must learn different instructional strategies as well as also re-conceptualize or change their conception about the meaning of teaching.

## Take advantage of Erasmus+ funding!

The costs for the courses, as well as your travel and subsistence can be covered by the [ERASMUS+ Programme](#) (2016 deadline for applications is **February 2<sup>nd</sup>, 2016, 12:00 CET**). If you are interested in how to prepare a successful KA1 application, read the [instructions here](#) and watch the **dedicated webinar** offered by the ESEA partner and ISE course organizers from Ellinogermaniki Agogi ([www.ea.gr](http://www.ea.gr)): <https://www.youtube.com/watch?v=j3my-pYntvk>

### How to apply for funding?

The steps to follow to apply for an Erasmus+ (School Education Staff Mobility) grant are:

- Contact your [National Agency](#) to obtain information on the grant application procedures in your country.
- Contact us by [e-mail](#) (see contact details) to express your interest in our courses and if you need assistance with the application procedure. By doing so we will reserve places for your school/organization.
- Register your school/organization on the [European Commission Authentication Service \(ECAS\)](#) if not already registered.
- Log in to the [Participant Portal](#) with your ECAS account details and register your organization to obtain your unique Participant Identification Code (PIC), if not already registered.
- Download the application form for School education staff mobility of the Erasmus+ Programme from the website of your [National Agency](#).
- You will receive our application assistance form, giving useful guidelines on how to fill it in.
- Fill in and submit the application form to your [National Agency](#). The deadline is **February 2, 2016, 12:00 (noon) Brussels time**.
- Do not forget to inform us as soon as you get notified from your National Agency whether your grant application is accepted or rejected.
- After having submitted the funding application, fill in the registration form to the ISE Summer Academy 2016 with your details. This is an individual registration form, so if there is more than one participant from the same school, each one will have to submit a separate registration form.