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Teacher Academy

Course webpage

STEM Education: Basic ICT Tools and Apps

By Michael Farrell

Course details

- One week course
- Starting from 480€ (Cultural activities included)*
- Min. 4 - max. 14 participants
- Certificate of attendance included (80% of attendance required)
- Available in Athens, Berlin, Dublin, and Rome

* A 60 € late registration fee will be applied if you register less than 8 weeks before the course start date.

Course description

ICT applications and tools should be valuable assets for STEM teachers. For STEM subjects, the relevance and function of some ICT tools may not be apparent, in addition, the range of ICT tools is constantly growing.

The course aims to introduce teachers to the latest ICT tools and the new frontier of virtual reality. The participants will discover how standard classroom ICT applications can engage their students and improve learning outcomes.

The participants will have a clearer idea of the tools that suit their subjects and how these tools will help their students reach learning objectives. During the course, participants will be shown the functionality of different ICT tools and technology and have opportunities to engage with virtual reality applications.

They will practice using these applications to teach a range of STEM topics. Participants will learn about the latest research on using a classroom computer and will discuss and come to conclusions on the benefits and problems associated with the use of ICT tools in the STEM classroom.

By the end of the course, participants will have a greater awareness of the variety and functionality of a range of ICT tools. They will have a better understanding of the educational potential of virtual reality.

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The participants will have developed the knowledge and skills to use ICT applications in a range of STEM subjects. They will have greater confidence in deciding how and when these tools should be applied.

Requirements

Suggested computer proficiency: Basic.

Learning outcomes

The course will help the participants to:

- Broaden their knowledge of a range of ICT tools that are suited to teaching STEM subjects;
- Apply these tools to teach a variety of STEM topics;
- Increase their understanding of virtual reality applications and their future potential;
- Understand the effectiveness of some ICT tools for growing student engagement;
- Increase their knowledge of the latest research on the effectiveness of ICT tools in the classroom.

Tentative schedule

Day 1 – Introduction to ICT tools for STEM

- Introduction to the course, the school, and the external cultural activities;
- Icebreaker activities;
- Presentation by the participants of unique aspects of their culture and society, or the impact their educational system has on student potential;
- Current research on ICT tools in STEM Environments;
- Guidelines for Friday Project – Teaching a STEM topic incorporating ICT Tools.

Day 2 – ICT tools overview

- Standard ICT tools and their application in the STEM Classroom;
- Friday Project – Outline sketch of the topic and desired learning outcomes.

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Day 3 – ICT tools for STEM – the next level

- Innovative ICT Tools aimed at STEM education;
- Virtual Reality, demonstrations, and discussion of the future potential;
- Friday Project – Deciding what tools to use for the Friday lesson;
- Discussion in groups and feedback from colleagues and trainers on the chosen tools.

Day 4 – How to apply ICT tools

- Brainstorming and discussion of the benefits/issues associated with ICT Tools;
- Further group practice using specific ICT applications;
- Friday Project – Final work on Friday's lesson.

Day 5 – Project presentation

- Presentation in groups of their STEM lesson.

Day 6 – Course closure and cultural activities

- Course evaluation: round-up of acquired competencies, feedback, and discussion;
- Graduation ceremony with Certificates of Attendance;
- Excursion and other external cultural activities.

*The schedule describes likely activities but may differ significantly based on the requests of the participants, and the trainer delivering the specific session. Course modifications are subject to the trainer's discretion. If you would like to discuss a specific topic, please indicate it at least 4 weeks in advance.

Our courses usually include two cultural activities. Further information is available on the webpage of each course location.

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