

STEM TEACHING: RELEVANT FOR OUR STUDENTS AND FOR OUR SOCIETY

ICSE Academy workshop series

<https://icse.eu/icse-academy/>

The focus of this workshop series is bringing participants up to date in research and teaching in the STEM subjects (Science, Technology, Engineering and Mathematics) in connection with European priorities such as fostering sustainability, digital skills and intercultural learning. The European workshop series aims at refreshing and deepening the knowledge of meaningful and relevant educational practices. Topics will include inquiry-based learning and interdisciplinarity, cultural diversity and inclusion, curriculum development and assessment in Europe, and the use and impact of technology on STEM education.

The European workshop series will offer a blend of seminars and workshops in the fields of primary and secondary education. The program will be tailored towards the diverse interests of teachers and student-teachers. The workshop series is organized by the ICSE Academy (International Centre for STEM Education).

Clusters of topics

The program of the workshop series is organized in four clusters. Each cluster address one main topic. Participants are expected to at least follow all sessions related to a cluster. Student-teachers are invited to attend the whole course. The four clusters are:

1. Learning by inquiry, Socio-scientific issues and Interdisciplinarity
2. Diversity and inclusion in STEM
3. STEM in a digital era
4. Assessment/STEM in Europe

Working formats

The sessions will be provided online and will have a very interactive character with various working formats. Most sessions will consist of a general introduction followed by group work, either in country groups or in mixed groups. Local teams have the opportunity to join together and follow the course from one room. In between sessions of a cluster the participants will be requested to do homework, and if possible, to try-out ideas with students in their classrooms. The course will be implemented in Moodle in combination with Webex for online communication. Video streams of sessions will also be saved and accessible in the Moodle environment.

Information and registration

Please contact your local ICSE Academy representative for further information on the course and for registration purposes. No registration fee is required as the course is co-funded by the European Union under grant no. 101052670. All participants will be asked to take part in a questionnaire.

More information can be found at: <https://icse.eu/icse-academy/>

Recognition

Recognition is organized by your local organization and credits can vary between 0,5-1 ECTS (micro-credentials) for a cluster, and between 2-5 ECTS for the whole workshop series. Credits or a participation certificate will be provided by the participating universities in each of the countries.

Tentative program

Time is CET.

Date	Topic
Cluster 1: Learning by inquiry, Socio-scientific issues (SSI) and Interdisciplinarity	
October 3, 2023 16:00 – 18:00	Local introduction to the workshop series
October 10 16:00 – 18:00	1. Inquiry-based STEM learning
October 17 16:00 – 18:00	2. Integrated STEM
October 24 16:00 – 18:00	3. Environmental challenges & and SSI in STEM
Cluster 2: Diversity and inclusion in STEM	
October 31 16:00 – 18:00	1. Introduction to diversity and inclusion in STEM education
November 7 16:00 – 18:00	2. Analysing and design STEM tasks for diversity and inclusion
November 14 16:00 – 18:00	3. Analysing inclusive classroom practices (based upon try-outs)
Cluster 3: STEM in a digital era	
November 21 16:00 – 18:00	1. Digital Competencies, Skills and Technology and STEM Field
November 28 16:00 – 18:00	2. Computational Thinking
December 5 16:00 – 18:00	3. Escape Games in STEM Education and VR
Cluster 4: Assessment/STEM in Europe	
December 12 16:00 – 18:00	1. Assessment practices
December 19 16:00 – 18:00	2. Curricula
January 9, 2024 16:00 – 18:00	3. Policy & ensuring quality