

ICSE ACADEMY SUMMER SCHOOL



Charles University, Faculty of Education, Prague, Czechia
June 28 – July 5, 2024

The focus of this STEM Education summer school is bringing participants up to date in research and teaching practices in the field of the STEM subjects (Science, Technology, Engineering and Mathematics), and refreshing and deepening the knowledge of meaningful and relevant educational practices. Topics will include inquiry-based learning and interdisciplinarity, cultural diversity and inclusion, connections to sustainable development goals (SDGs), and the use and impact of technology on STEM education. The summer school offers a blend of lectures, seminars and workshops on educational research and towards the diverse interests of student-teachers, doctoral students, teachers, teacher educators and researchers. Credits (3 ECTS) will be provided by Faculty of Education Charles University. The goals of this summer school are an increased awareness with regards to diversity in STEM education and to values such as sustainability and inclusivity in STEM classrooms, an enrichment of thematic knowledge and practical skills, and first-hand intercultural experiences.

The Summer School is organized by the Faculty of Education Charles University in collaboration with ICSE Academy (<https://icse.eu/icse-academy/>). The collaboration with ICSE addresses in particular the potential of IBL for taking opportunities offered by diverse and multi-cultural classrooms and for connecting STEM education to socio-scientific issues and sustainable development goals.

Tentative program

The program is organized around key themes of the sessions led by experienced tutors. We expect establishing of working groups by the participants' interests (e.g. research, primary or secondary education, teacher education) and work together each late afternoon and evening. We expect these groups to work interdisciplinary and present their portfolios at the colloquium on last day.

Day	Topics
Friday	Opening, Cultural diversity in STEM education – country presentations Fermi task
Saturday	Decision-making based on confronting scientific positions
Sunday	Socio-scientific issues in the city – Prague as city of Science&Society
Monday	Sustainability – wicked problems
Tuesday	Diversity and Inclusion in STEM Education
Wednesday	Design Thinking
Thursday	From Circuitry to Creativity: An Interdisciplinary STEAM Journey with BBC micro:bit
Friday	Colloquium with portfolios presentations Closure of the summer school

Applications and further information

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