# Micro-credentials for Higher Education systems of Georgia and Armenia: South Caucasus lighthouse project



## The University of Georgia

AERT

- High quality education;
- Modern teaching approaches;
- Great variety of major and minor specialties;
- Learning process in small working groups with local and foreign experts;
- Exchange programs;
- Modern Sports infrastructure and a fitness club;
- Diverse student life, active and creative student clubs;
- High-tech, modern laboratories;
- Unforgettable events;
- International certificate programs.





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### School of Science & Technology

### **ERASMUS+** projects

MATHGEAR





**2014 – 2017 MathGeAr**: Modernization of Mathematics curricula for Engineering and Natural Sciences studies in South Caucasian Universities by introducing modern educational technologies. The overall objective of the project is to improve the quality of STEM education in South Caucasian region by modernizing and improving the curricula in the field of Mathematics.

**2019** – **2022 MENVIPRO**: Modernization of Environment Protection Studies Programmes for Armenia and Georgia. Main target was enhancing regional higher education in the field of Environmental protection. Objectives are Curriculums development and modernization; Development of living lab; Staff exchange program; Implementation of innovative teaching methods; Dissemination of information: media, website, workshops, final conference, materials, publication etc. The project aims to facilitate the modernization of the University studies in the field of Environment Protection in the Region of South Caucasus by transferring European best practices and applying principles of Quadruple Helix.

#### Form 2023 – KA171 of the Erasmus+

The key action KA171 of the Erasmus+ programme for International Credit Mobility (ICM) promotes the implementation of mobility projects outside the EU, in line with the internationalisation of higher education institutions strategy. **The University of Tuscia** located in the city of Viterbo, Italy. Founded in 1979. **The University of Thessaly** located in Thessaly, Greece, founded in 1984.

### International collaboration in research projects



#### Since 2010 member of J-PARC

Japan Proton Accelerator Research Complex is a high intensity proton accelerator facility. It is a joint project between KEK and JAEA and is located at the Tokai campus of JAEA. J-PARC aims for the frontier in materials and life sciences, and nuclear and particle physics. J-PARC uses high intensity proton beams to create high intensity secondary beams of neutrons, hadrons, and neutrinos.

#### Since 2022 full member of KM3NeT



KM3NeT the next generation neutrino telescopes. KM3NeT is a research infrastructure housing the next generation neutrino telescopes. Once completed, the telescopes will have detector volumes between megaton and several cubic kilometres of clear sea water. Located in the deepest seas of the Mediterranean, KM3NeT will open a new window on our Universe, but also contribute to the research of the properties of the elusive neutrino particles.



### Since 2023 full member of CERN Atlas experiment

ATLAS is the largest general-purpose particle detector experiment at the Large Hadron Collider (LHC), a particle accelerator at CERN (the European Organization for Nuclear Research) in Switzerland. The experiment is designed to take advantage of the unprecedented energy available at the LHC and observe phenomena that involve highly massive particles which were not observable using earlier lower-energy accelerators. ATLAS was one of the two LHC experiments involved in the discovery of the Higgs boson in July 2012. It was also designed to search for evidence of theories of particle physics beyond the Standard Model.



### **Micro-credentials for Higher Education systems**

REAT



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### Micro-certificate courses that we plan to develop



### Microcontroller programming for Drone applications

This is a cutting-edge field, considering the increasing use of drones in various industries such as agriculture, surveying, and logistics. Teaching microcontroller programming specific to drone applications equips learners with skills in a rapidly growing technology.

### GIS application for Tourism

Geographic Information Systems (GIS) have a wide range of applications, and using GIS specifically for tourism is an excellent focus. It could involve spatial analysis, mapping, and other GIS techniques tailored for the tourism industry, providing valuable skills for those interested in this sector.



### Python/R programming for data analysis in Medicine

Data analysis in medicine is crucial for making informed decisions. Teaching Python and R programming languages for data analysis in a medical context acknowledges the increasing role of data-driven insights in healthcare. It prepares individuals to work with large datasets and derive meaningful conclusions.