Continuing Education & Life Long Learning

of Continuing Education and Lifelong Learning
AGRICULTURAL UNIVERSITY OF ATHENS

Intensive Course on Meteoritics Science: from A to Z

International Guide to Studies

2025

1. Introduction

The Center of Continuing Education and Lifelong Learning (CCELL) of the Agricultural University of Athens (AUA) welcomes you to the Training Programme titled ***"Intensive Course on Meteoritics Science: from A to Z"***. The duration of the course is **50 hours -2 months-** (2,0 ECTS), representing the 3rd edition of this Series of Training Programmes, and it is provided **exclusively remotely (online, asynchronous education), in English**.

Scientific Coordinator of the training programme is ***Ioannis Baziotis***, Associate Professor at the Department of Natural Resources and Agricultural Engineering of Agricultural University of Athens.

2. Purpose

The purpose of the programme is to introduce trainees to the science of meteoritics, the characterization and evaluation processes of meteorites in the field and the laboratory, and the equipment/tools used in this field. This programme aims to teach the methodology of studying the minerals of meteorites and why the science of geology is important for a deeper understanding of the preservation processes of a meteorite specimen.

Additionally, the programme aims to provide the trainees with basic knowledge of the formation and evolution of our solar system through the knowledge gained from the science of meteoritics, the equipment required for primary characterization of a sample (determining whether it is a meteorite or not), and the documentation procedures for a potential meteorite.

3. Programme necessity

This programme will be unique at the level that will be taught. Individuals who participate will gain sufficient knowledge in the field of meteorite recognition, which will help them "open up" and understand the meteorite market in their country. They will acquire knowledge about the general concept of what a meteorite is, when it is significant, and its value. This will attract the interest of individuals from around the globe, particularly from countries where the field of meteoritics is not widely practiced.

4. Learning Objectives

A. Knowledge

- The critical evaluation of technical reports.
- Observation of meteorite samples in various scales.
- The ability to identify the predominant features of a meteorite.
- The ability to distinguish a meteorite from a terrestrial rock.

B. Skills

- Ability to describe the minerals based on the macroscopic observation of a specimen.
- Ability to describe the class of a meteorite.

C. Abilities

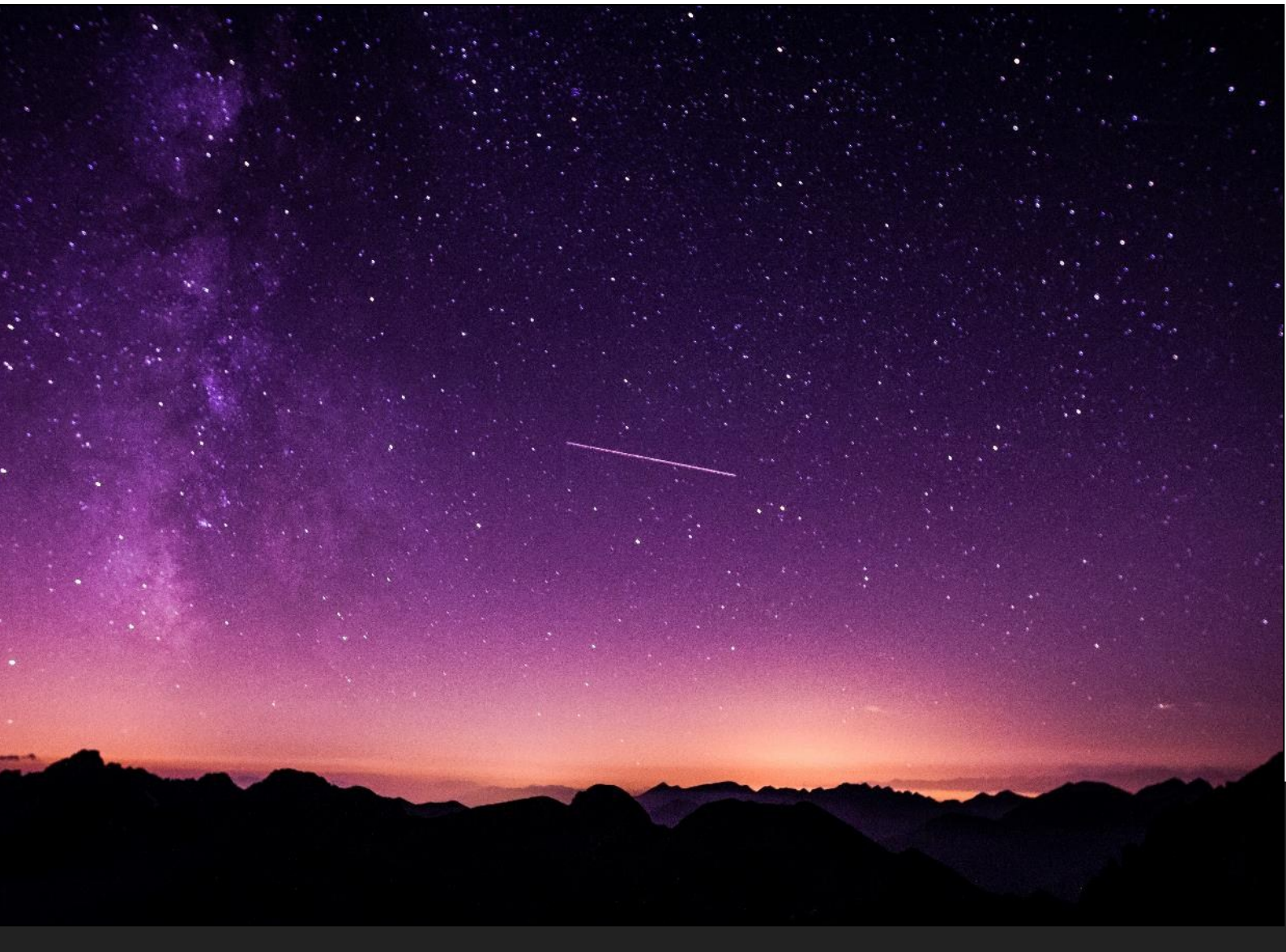
- Recognition of the value - not only scientific - of a meteorite.
- Understanding the significance and the range of the meteorite market at the National and International level.
- Utilizing knowledge for the commercial exploitation of meteorites.

5. Target Group

The programme is addressed to anyone who has an interest in the field of minerals and rocks, and specifically to those who wish to acquire knowledge about meteorites.

6. Certifications

Certificate of Training



7. Structure of the Training Programme

Module title	Subsection Title
1. Minerals and Rocks	**1.1** Mineral Definition-Silicates-Oxides-Opaques-Hydrous Minerals
	1.2 Igneous-Metamorphic-Sedimentary Rocks
2. Comets-Asteroids	**2.1** Solar System Formation
	2.2 Meteors-Meteoroids-Asteroids
	2.3 Craters and Landing of Meteorites on Earth
	2.4 Antarctic Meteorites
3. Analytical methods of extraterrestrial materials	**3.1** Optical Microscope
	3.2 Scanning Electron Microscopy-Electron Probe Microanalysis
	3.3 Raman Spectroscopy
	3.4 Classification of a meteorite-Examples
4. Chondrite Meteorites	**4.1** Ordinary Chondrites (H-L-LL)
	4.2 Enstatite Chondrites-Rumuruti-Kakangari
	4.3 Carbonaceous Chondrites (CI-CM-CO-CV-CK-CR-CH-CB)
	4.4 Recent meteorite falls: Viñales, Ozerki, Chelyabinsk
5. Achondrite Meteorites	**5.1** Martian Meteorites (SNC)*
	5.2 Lunar Meteorites
	5.3 Asteroidal Meteorites (URE-ACA-LOD-ANG-AUB-BRA-WIN-HED-MES-PAL)**
	5.4 Importance of Meteorites-Value-Meteorite Market
	*: S: shergottites, N: nakhlites, C: chassignites. ** URE:ureilite-ACA:acapulcoite-LOD:lodranite-ANG:angrite-AUB:aubrite-BRA:brachinite-WIN:winonaite-HED:howardite eucrite diogenite-MES:mesosiderite-PAL:pallasites.

8. Scientific Team

Scientific and Academic Coordinator of the training programme is *Ioannis Baziotis*, Associate Professor at the Department of Natural Resources and Agricultural Engineering of Agricultural University of Athens.

9. Method of Implementation

The Training Programme is provided **exclusively in English** in the form of **online asynchronous** learning (e-learning), however there will be a meeting (one hour per week) in real time for Q&As and related comments. The Training Programme lasts **8 weeks (50 hours**; **2 ECTS units**).

The candidates must submit their application for registration at least 1 month before the beginning of the course. Approval/rejection of the application is announced before the beginning of the course. Successful candidates receive instructions for the payment of the tuition fees, after which they are granted access to the e-learning platform of the Training Programme, which remains open to the trainees throughout its duration.

10. Training Techniques– Tools – Equipment

The training techniques will be conducted in accordance with the principles of adult education, using modern and innovative methods of distance learning, with the instructor teaching in asynchronous mode using the **platform e-class CCELL/AUA**.

Trainees should have access to a computer and the internet. Trainees will have the ability to ask questions and receive real-time responses.

11. Educational Material – Additional Sources

The material that will be used during the course will include **presentations, tables- diagrams, images, and videos**. The material will be based on the latest scientific literature, journals, and websites adapted to the participants of the programme. Additionally, minerals and rocks from Earth, as well as a variety of meteorites from the Moon and asteroids, will be presented.

12. Evaluation Methodology

12.1 Evaluation of Trainees

Multiple choice test

12.2 Evaluation of Training Programme

The Training Programme is evaluated by the trainees, who are expected to submit an evaluation report composed in the form of a questionnaire. This questionnaire is submitted to the Secretariat of the Training Programme, after its completion.

The conclusions of the evaluation are used for the continuous improvement of the quality of the Training Programme.

13. Trainee obligations/Training Certificate

For the successful completion of the Training Programme, trainees must:

- ✓ They must have attended all the teaching units. Absences cannot exceed 10% of the scheduled training hours.
- ✓ They must have successfully completed the final examination (a 60-minute examination with multiple-choice questions without negative grading).
- ✓ They must have paid the full attendance fees before the begin of the Training Programme.

Trainees who successfully complete the programme receive a *Certificate of Training*, which is issued by the CCELL of the Agricultural University of Athens.

Trainees who attended, but failed the final examination receive a **Certificate of Attendance**.

14. Participation Fee / Discount Policy

The attendance fee is **600 euros** and must be deposited before the beginning of the Training Programme (the deadline for the submission of the attendance fees is recorded in the acceptance letter addressed to the trainee).

Discount policy:

- Undergraduate students of the Agricultural University of Athens: 10% (540 euros)
- Undergraduate students of other Universities or Technological Institutions: 10% (540 euros)
- Participants repeating the Training Programme within 2 years after an unsuccessful attempt: 50% (300 euros)

Interested individuals should deposit the aforementioned amount into the account given below, which held by the Special Account for Research Funds (SARF) of the Agricultural University of Athens, specifying their name and the project's SARF code (***code: 80419***).

National Bank of Greece Account with IBAN GR 2801100400000004001883448

The proof of deposit should be attached to the application submitted electronically on the website of CCELL of the AUA.

15. Applications

Candidates submit their application for participation via the portal of the CCELL of the AUA, where they are expected to upload all the supporting documents.
If the number of participants is lower than the minimum necessary, the CCELL reserves the right to cancel the respective cycle of training.

16. Communication

For more information, interested parties can contact:

- The scientific Coordinator of the Programme e-mail: ibaziotis@aua.gr Tel: 210-5294155 (10:00-14:00)
- The Secretariat of the CCELL of the Agricultural University of Athens email: kedivim@aua.gr Tel: +30-210-5294400 (10.00-15.30)

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