



ugr | **Universidad
de Granada**



ERASMUS PROJECT+ KA-219

WHEN THE EARTH SHAKES! ARE WE READY? A PROJECT TO REINFORCE THE KEY COMPETENCES OF THE EUROPEAN STUDENTS.

Training course for teachers

From 22nd to 26th May 2017

Monday, 22nd May, 2017.

9:00 – 14:00.

Analysis of the historical earthquake of 1751 that took place in the área of Los Vélez (Almería). Visit to the castle in Vélez-Blanco damaged by the earthquake. Visit to the Ambrosio Palaeolithic Cave and to “Los Letreros” Cave with paintings on the fault planes.

16:00 –18:00.

Analysis of the historical earthquake of 1751 and visit to the “Encarnación” Church in Vélez-Rubio built after the collapsed of the previous one due to the earthquake.

Lecturer: Diego Gea, geologist and Biology and Geology teacher at “José Marín” High School. Spanish coordinator of the European Project Erasmus+.

Overnight: Los Vélez Area.

Tuesday, 23rd May, 2017.

Analysis of the earthquakes that took place in Lorca (Murcia) on May, 11th, 2011

10:00-11:00.

Lecture: Learnt lessons after the earthquakes of May 11th, 2011 in Lorca.

11:00-11:15.

Coffee break

11:15-12-00.

Workshop: the earthquake machine and the Project ESLORCA (seismic education in Lorca), seismic cycle of a fault, faults features of Lorca, forecast and prevention of earthquakes, damages in buildings and state administration answer. Preventive measures and earthquake drills at the high-school “Ramón Arcas” in Lorca. Designed materials.

12:00-14:00.

On the site visit to analyse the fault of Alhama (Murcia) on its way through Lorca. Walk through Lorca city centre to explain the damages suffered by the city.



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Lecturer: Juan Antonio López Martín. Graduated in Geology Science (Granada University, 1989) and Secondary School Professor. Ramon Arcas High-School Master. Local representative in Murcia of the Spanish Association for the Teaching of Natural Sciences. (in Spanish AEPECT)

Overnight: “Los Vélez” Area

Wednesday, 24th May, 2017.

Trip to Granada
University of Granada
Andalusian Geophysics Institute
University Campus of La Cartuja

10:00-10:45. Lecture on the earthquakes and the dangers of seismic movements. Professor: *José Morales Soto*.

11:00-11:45. Volcanos and the dangers of seismic movements. *Professor: Francisco Javier Almendros*.

12:00-12:45. Seismic prevention. Seismic and volcanic dangers. *Doctor: Mercedes Feriche*.

13:00-13:30. Visit to the Centre for registering seismic movements that belongs to the Seismic System of Andalusia.

Afternoon: Visit to The Alhambra in Granada.

Overnight: Granada.

Thursday, 25th May, 2017.

On the site analysis of Granada.

- Visit to “Los Tajos de Alhama”. Related seismic effects: amplification, landslides, mudslide, etc.
- Visit to “Arenas del Rey”. Macroseismic epicentre of the Earthquake of Andalusia of 1884. Current spot. Old spot. Description of the first seismic resistant measures applied to the rebuilding.

Lecturers: José Morales Soto and Mercedes Feriche (University of Granada)

Afternoon: Visit to the Natural and Geopark of Cabo de Gata-Níjar.

Overnight: Cabo de Gata.



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Friday, 26th May, 2017.

Analysis of the volcanism of the Natural and Geopark of Cabo de Gata-Níjar.

9:00. Leaving from the accommodation place to the "Monsul" beach.

9:30. Guided tour on the volcanic holes of the "Monsul" and "Media Luna" beaches.

11:00. Visit to the mine area and volcanic caldera of "Rodalquilar".

13:30. Lunch at "Casa Alba" ("Los Albaricoques")

15:30. Visit to "Rambla Morales", salt mines and volcanic cliffs of "Punta Baja" beach.

17:30. End of the tour.

Lecturer: David Monge. Geologist & Wildlife Guide (GEOGATA)

Return to Los Vélez Area.

Overnight: Los Vélez Area.



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