





# REPORT ON TRAINING OF TEACHING STAFF FOR INNOVATIVE TEACHING METHODS

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#### List of abbreviations

BOKU University of Natural Resources and Life Sciences, Vienna

EU European Union

HEI Higher Education Institution

KPA Academy of Criminalistics and Police Studies

MUHEC Middlesex University Higher Education Corporation

NatRisk Development of master curricula for natural disasters risk management in

Western Balkan countries

OE Óbuda University

TCASU Technical College of Applied Sciences Urosevac with temporary seat in Leposavic

TUC Technical University of Crete, Chania, Greece

UBL University of Banja Luka

UNI University of Nis

UNID University of Defence in Belgrade

UNIME University of Messina UNSA University of Sarajevo

UPKM University of Pristina in KosovskaMitrovica

WB Western Balkan WP Work package





## 1 Introduction

Report on training of teaching staff for innovative teaching methods summarizes information regarding training of Western Balkan (WB) teaching staff organized by EU project partners in the framework of work package 2 "Development of master curricula" and activity A2.3 "Training of teaching staff for innovative teaching methods" of the Erasmus+ Capacity Building in the Field of Higher Education project "Development of master curricula for natural disasters risk management in Western Balkan countries" (NatRisk).

Five trainings were organised by EU project partners i.e.

- ➤ Óbuda University (OE) 24 25 May 2017 (<a href="http://www.natrisk.ni.ac.rs/activities?id=72">http://www.natrisk.ni.ac.rs/activities?id=72</a>)
- Middlesex University (MUHEC) 29-30 June 2017 (<a href="http://www.natrisk.ni.ac.rs/activities?id=88">http://www.natrisk.ni.ac.rs/activities?id=88</a>)
- Technical University of Crete (TUC) 10-11 July 2017 (<u>http://www.natrisk.ni.ac.rs/activities?id=87</u>)
- University of Messina (UNIME) 19-20 September 2017 (http://www.natrisk.ni.ac.rs/activities?id=97)
- University of Natural Resources and Life Sciences, Vienna (BOKU) 15-16 November 2017 (<a href="http://www.natrisk.ni.ac.rs/activities?id=117">http://www.natrisk.ni.ac.rs/activities?id=117</a>)

The goal of the trainings is to educate WB teachers about innovative teaching methods as well as to improve the professional, pedagogical and methodological knowledge.

All presented materials, agendas, evaluation and participation lists, training reports, photos and videos are freely available at the NatRisk website (<u>www.natrisk.ni.ac.rs</u>).

## 2 Lessons learned

The first training was held at the Óbuda University (OE) from 24 to 25 May 2017. The training was chaired by Dr. Ágota Drégelyi-Kiss, vice-dean for research, OE Bánki Donát Faculty of Mechanical and Safety Engineering (BGK).

Four topics were presented:

- Introduction to e-learning and Moodle system, Prof. Dr. Gyula Szabó;
- Research at Doctoral School on Safety and Security Sciences, Prof. Dr. Lívia Cveticanin;
- ➤ The elements of project work, student scientific work case studies, Prof. Dr. Tamás Szakács;
- Cooperative and dual education in Hungary, Prof. Dr. Erzsébet Ancza.

Importance of using e-learning systems in education process was highlighted as well as the following benefits: automated feedback, usable outcomes and no need for "police" work at





examinations. Also, the elements of project work and student scientific work was presented and the needs for cooperative and dual education.









The second training was held at the Middlesex University (MUHEC) from 29 to 30 June 2017. Persons from the CAPE (Centre for Academic Practice Enhancement), Middlesex University, Louise Merlin, Alicia Wright and John Parkinson were prepared workshop titled "How Learning Happens" with the following topics:

- Introduction to Learning Theories,
- ➤ Introduction to Constructive Alignment principles of Assessment Design,
- Learning Outcomes, Assessment Criteria and Feedback processes.

During development of the NatRisk master curricula we should be aware of want students should know and be able to do. Because of that, it was highlighted the way how to design outcomes using Bloom's revised cognitive domain and the significance of learning outcomes that students should achieve.

Also, Dr. Christophe Viavattene, Flood Hazard Research Centre Middlesex University, presented how to engage cross disciplinary perspectives in teaching.













The third training was held at the Technical University of Crete (TUC) from 10 to 11 July 2017. The training was chaired by Prof. Georgios Stavroulakis, deputy Rector, head of Quality Assurance Unit School of Production Engineering and Management, TUC.

#### The following topics were presented:

- Earthquake-related geohazards and seismic design of onshore and offshore pipelines in southeaster Mediterranean region, Prof. Yiannis Tsompanakis,
- Structural analysis of monuments, Asst. Prof. Maria Stavroulaki,
- The MSc Course Geoenvironmental Risk & Resources and the UNESCO Chair on Solid Earth Physics & Geohazards Risk Reduction, Prof. Filippos Vallianatos,
- Optimal flow in networks: application on logistics, Dr. Yannis Marinakis,
- Quality assurance techniques, Maria Bakatsaki,
- Smart neurofuzzy systems, Dr. Georgios Tairidis,
- ➤ Petroleum education and research in the Technical University of Crete, Prof. Nikos Passadakis,
- ➤ Geoinformatics and usage of UAV in natural disasters, Ass. Prof. Panagiotis Partsinevelos,
- Accidents and Disasters: overview of the EU's action, Panagiotis Alevantis.





The objective was to introduce to WB project partners the most relevant issues related to humanitarian logistics, quality assurance techniques, earthquake-related geohazards and seismic design as well as examples of TUC's MSc courses.









The fourth training was held at the University of Messina (UNIME) from 19 to 20 September 2017. The training was chaired by Prof. Giuseppe Tito Aronica, University of Messina, UNIME.

The following topics were presented:

- ➤ Introduction to international relations department activities in UNIME, Francesca Pollicino.
- ➤ Presentation of UNIME Graduate studies related to Natural Risks, Prof. Giuseppe Aronica,
- Monitoring of structures and land using drones and remote surveys, Prof. Giovanni Randazzo,
- An integrated exposure-vulnerability approach for flood risk analysis in urban environment, Prof. Giuseppe Aronica,
- Territorial seismic risk map: a fundamental instrument for prevention, Prof. Giovanni Falsone,
- ➤ Isolation and dissipation systems for seismic protection of structures, Prof. Giovanni Falsone,
- ➤ Seismic evaluation of an earth dam, Prof. Ernesto Cascone.





The objective was to introduce to WB project partners the most relevant issues related to risk studies, how to use drones in solving different problems and what is flood risk management.









The fifth training was held at the University of Natural Resources and Life Sciences, Vienna (BOKU) from 15 to 16 November 2017. The training was chaired by Prof. Michael Tritthart, University of Natural Resources and Life Sciences, Vienna (BOKU).

Two workshops were organised:

- ➤ Innovative teaching methods in the classroom with the following topics:
  - o Introduction to innovative teaching methods in the classroom, Priv.-Doz. Dr. Michael Tritthart,
  - o Innovative teaching methods in the classroom, MMag. Dr. Elisabeth Weber,
- Innovative teaching methods in laboratories with the following topics:
  - o Introduction to innovative teaching and research methods at the Institute of Mountain Risk Engineering & Laboratories Tour, Assoc. Prof. Dr. Roland Kaitna,
  - o Visit of the laboratories of the Institute of Water Management, Hydrology and Hydraulic Engineering, Priv.-Doz. Dr. Michael Tritthart, Dr. Christine Sindelar,
  - Visit of the outdoor research channel of the Institute of Water Management, Hydrology and Hydraulic Engineering, Priv.-Doz. Dr. Michael Tritthart.





The objective was to introduce to WB project partners the most relevant issues related to innovative teaching methods in the classroom and in the laboratories. The following teaching methods were explained: learning station, think pair share, 'Still Got It' card, 'Covered!' card, conclusion card, muddiest point, minute paper, 3S questions, 'A, B, C or D?', mood barometer, jigsaw teaching, knowledge card, buzz group, world café, take home message, placement, fishbowl.













# 3 Statistics of trained academic staff from the WB HEIs

This section aims to present statistical data for the trained academic staff from the partner country's Higher Education Institutions. During the trainings, 87 teaching staff were trained i.e. UNI – 30, KPA – 9, UPKM – 12, UNSA – 11, UBL – 7, TCASU – 6 and UNID - 12. Number of male was 52 and number of female was 35.

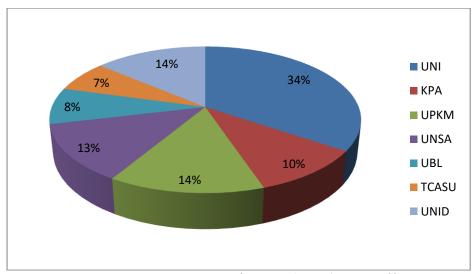


Figure 1. Percentage of trained teaching staff

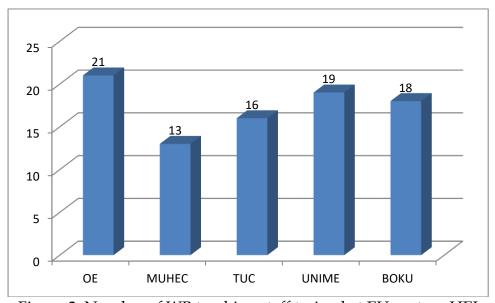


Figure 2. Number of WB teaching staff trained at EU partner HEI



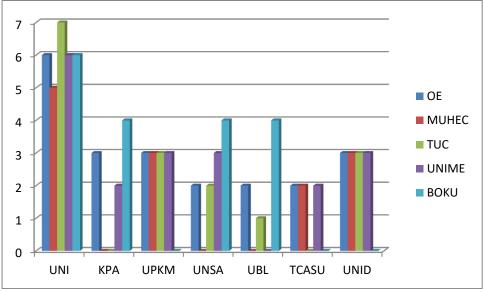


Figure 3. Number of teaching staff trained per WB partner HEI

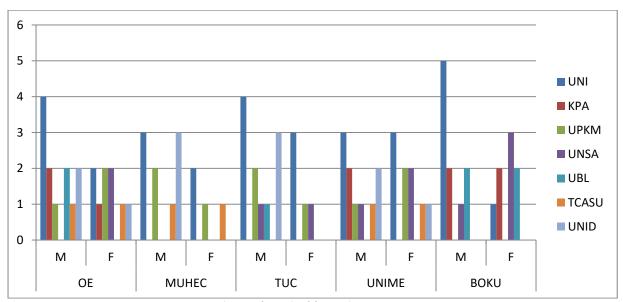


Figure 4. Number of male/female per WB partner HEI