#### **Course Information Sheet**

University: Univerzita Komenského v Bratislave (Comenius University in Bratislava)

**Faculty:** Prírodovedecká fakulta (Faculty of Natural Sciences)

Code: Title of Course: Natural Hazards and Risks

**Form of Study:** full-time study **Number of contact hours:** 3

per week: 2 hour lecture and 1 hour seminar per level/semester: 36

Number of credits: 4

Semester: 6<sup>th</sup>

**Degree/Level:** 1st (Bachelor)

Prerequisities: -

**Grading Policy (Assessment/Evaluation):** Grades will be based on the final written test (80% of evaluation) and completion of semestral work (20% of evaluation).

The course has a standardized grading system which is identified below:

A (90-100%): Outstanding, excellent work (exceptional performance with strong evidence of original thinking and obvious capacity to analyse, synthesize and evaluate); B (80-89%): Good, competent work; laudable performance with evidence of some original thinking, good problem-solving ability, exhibiting a serious, responsible engagement with the course content; C (70-79%): Adequate, reasonably satisfactory work; fair performance but infrequent evidence of original thinking or the capacity to analyse, satisfies the minimum requirements of the course; D (60-69%): Less acceptable work; relatively weak performance with little evidence of original thinking or ability to analyse or synthesize course material; E (50-59%): Minimally acceptable work; very weak performance with little evidence of original thinking, showing inadequate grasp of some basic elements of the course. Fx (under 50%): Inadequate work; poor performance that indicates a lack of understanding or misunderstanding of essential subject matter.

# **Aims and Objectives:**

The course offers an introduction into problems of natural hazards and risks influencing human activities in the landscape and their evaluation. It covers the background and skills needed to understand and analyse nature of natural processes threatening to humans. Students will master simple algorithms of space natural hazards evaluation.

# **Syllabus/Indicative Content:**

This course will focus on following topics:

Definition of basic terminology (disaster, hazard, risk, susceptibility, vulnerability). Overview of types of hazards and risks. Natural disasters in the Earth history.

Volcanic hazard and its evaluation.

Seismic hazard and its evaluation.

Windstorms and wind erosion and their evaluation.

Hazard of water soil erosion and its evaluation.

Hazard of landslide and its evaluation.

Hazard of flooding and its evaluation.

Hazard of snow avalanche and its evaluation.

Past global disasters and temporary climatic change.

Whirlwinds and risks of human activities in threatened regions.

Multihazards and risks in Slovakia

# **Suggested readings:**

HYNDMAN, D., HYNDMAN, D.: *Natural Hazards and Disasters*. 2<sup>nd</sup> edition. Belmont: Brooks/Cole Cengage Learning, 2009. ISBN-13: 978-0-495-31667-1.

McGUIRE, B., BURTON, P., KILBURN, Ch., WILLETTS, O.: World Atlas of Natural Hazards. London: Arnold, 2004. ISBN 0-340-76405-8.

TREMBOŠ, P., MINÁR, J., MACHOVÁ, Z.: Identification of selected natural hazards from the standpoint of evaluation of environmental limits. In: *Acta fac. rer. natur. Univ. Comen.*, *Geographica* No. 34. Bratislava: Univerzita Komenského, 1994, p. 135-152. ISBN 80-223-0827-7.

Language of Instruction: English

Other course information: no

# **Grading history**

A	В	С	D	Е	FX
a	b	c	d	e	f

### **Lecturer/Instructor:**

Jozef Minár, Professor

Peter Pišút, Associate Professor.

Last update: 8. februára 2022

Approved by: Doc. RNDr. Vladimír Falt'an, PhD.