| General Information |                              |                 |                           |
|---------------------|------------------------------|-----------------|---------------------------|
| Course name         | Hydrology and hydrogeography | ECTS<br>Credits | 6                         |
|                     |                              | Semester        | 2, summer<br>4 hours/week |

### **Aims**

Lectures should familiarize the students with sorting and other processes involved in the origin and mode of surface and subsurface waters. Methods of measurement, Assessment Methods and Criteria and interpretation of measured values. At the same time the student should be familiar with the relationship existing between ground and surface water as well as the relationship between precipitation, evapotranspiration and water balance in the basin.

The student should master the basic concepts and terminology. Lectures deals with basics of oceanography to broaden the horizons of students of terminology, the basic relations and processes in the oceans.

## **Contents**

Historical development of hydrology, the parameters runoff, atmospheric precipitation, runoff balance, hydrological cycle. Hydrography, morphometric characteristics of the water flow and river runoff in the process. Measurement of water levels and flow rates. Subsurface water resources formation, breakdown, mineral and thermal water springs and their classification and use. Stagnant water, physical and chemical properties, classification of lakes. Oceanography - relief bathymetric, physical and chemical properties of seawater, seawater moves, raw materials and energy potential of the world ocean.

# **Assessment Methods and Criteria**

The assessment consists of written (10 questions) and oral exam (additional questions to the written test) with a success rate over 60 %.

#### Grading Scale (in %):

A- must be achieved more than 92% points, B- must be achieved 84-91% points, C - must be achieved 76-83% points, D - must be achieved 68-75% points, E - must by achieved 60-67% points, FX- less than 59% points.

Grading System: The University recognises the following six degrees for the Assessment Methods and Criteria of the study results: a) A – excellent (excellent results) (numerical value 1) b) B – very good (above average results) (1.5) c) C – good (average results) (2) d) D – satisfactory (acceptable results) (2.5) e) E – sufficient (results meet the minimum criteria) (3) f) FX –failed (requires further work) (4)

# **Bibliography**

BEDIENT, P.B., HUBER, W.C., 1989: Hydrology and Floodplain Analysis, Addison-Wesley Publishing Company

KUKAL, Z. 1990: Základy oceánografie. Praha: Academia, 1990, 590 s.

