## Name of the subject: Global hydrology influences

Teacher(s): Dragan Dolinai, Stevan Savić

**Status of the subject:** elective **Number of ECTS points:** 15

**Condition: -**

# Goal of the subject

The main goal is overviewing the global impacts of worldwide water areas (oceans and seas) on global climate and on the geography of the Earth in general.

#### **Outcome of the subject**

Adoption of knowledge about main phenomena in oceans. Acquire competences in causal analysis of issues related with hydrology processes and phenomena in oceans and its impacts on global natural processes.

### **Content of the subject**

Theoretical lectures: Global Ocean – division and developmen; Global Oceam – horizontal division; Relief of the Global sea; Salinity – horizontal and vertical division; Optical properties of sea water; Temperature of sea water; Sea ice – spatial distribution, consequences of ice core melting

Sea waves – genesis, dimension and impact on coast; Sea currents – genesis, patterns in global sea, impacts on environment; Tide and ebb – impacts on environment; Temperature oscillation of Global sea – influences on air temperature, winds, precipitation patterns, etc.

*Practical lectures:* Collection and storage of available hydrological and climatological data. Data analysis using modern tools. Preparation for the scientific work.

## **Recommended literature**

- 1. Steele, H. J., Thorpe, A. S., Turekian, K. K. (2010): Climate and oceans. Academic Press is an imprint of Elsevier, 32 Jamestown Road, London NW1 7BY, UK
- 2. Robinson, S. I. (2010): Discovering the ocean from space. Springer-Verlag, Berlin.
- **3.** Thurman, V. H., Burton, A. E. (2001): Introductory oceanography. Prentice Hall, Upper Saddle River, New Jersey.

Number of active classes | Theory: 5(75) | Practice: 5(75)

#### **Methods of delivering lectures**

Oral lectures, individual consultations, seminar papers

#### Evaluation of knowledge (maximum number of points 100)

Seminar paper 50

Oral exam 50