|  |  |
| --- | --- |
| Course: | *Soil science* |
| Course id: 3ОУВ3О15 |
| Number of ECTS: 5 |
| Teacher: | Milivoj Belic, PhD, full professor; Ljiljana Nesic, PhD, associated professor; Vladimir Ciric, PhD, assistant professor |
| Course status | Mandatory |
| Number of active teaching classes (weekly) |
| Lectures: 4 | Practical classes: 2 | Other teaching types: | Study research work: | Other classes: |
| Precondition courses | None |
| 1. **Educational goal** of the course is introducing students with the characteristics of soil processes; genesis, evolution, causes of variability and geographic distribution laws of soil cover and soil classification
 |
| 1. **Educational outcomes** - after passing the exam, students will have expanded knowledge that will be enabling to them to understand and solve problems related to soil in the complex process of planning.
 |
| 1. Course content

**Theoretical instruction**-Opening lecture, Minerals and rocks as a basis for the genesis of soil, Morphological characteristics, physical properties, soil as a dispersed system, mechanical composition, clay, organic matter, Soil colloids, Organo - mineral complex, structure, porosity, water and water regime, air and air regime, thermal properties and thermal regime, physic-mechanical properties, chemical properties, the elements that constitute the pedosphere, absorptive capacity, soil solution, reaction, acidity and alkalinity of soil pH, buffering and oxidation-reduction potential , biological soil properties, soil genesis, classification and soil classification,**Practical teaching**-primary-petrogene and secondary minerals, igneous rocks, sedimentary rocks, metamorphic rocks, field research plots, soil density, soil texture, Water permeability and capillary rise, Plasticity soil, Determination of humus in the soil, Determination of CaCO3, Determination of active soil acidity, potential acidity and determine the amount of lime needed funds for the repair of acid soils, Determination of adsorption complex, Determination of total soluble salts in the soil and the required quantity of plaster for the repair of alkaline soils. Field practice - Introducing different parent rocks and profiles of the most frequent types of soil in Vojvodina. |
| 1. Teaching methods

Lectures, Practice/ Practical classes, Consultations |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam  | Mandatory | Points |
| Lecture and exercise attendance | Yes | 10 | *Written part of the exam-tasks and theory* | Yes | 30 |
| Test part Agrogeology and practice  | Yes | 20 | *Oral part of the exam* | Yes | 30 |
| Colloquium | Yes | 10 |  |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
|  | Aleksandar Kukin, Vladimir Hadžić, Ljiljana Nešić, Milivoj Belić | Agrogeologija | Poljoprivredni fakultet, Novi Sad | 2007 |
|  | Nikola Miljković | Osnovi Pedologije | Prirodno-matematički fakultet, Novi Sad | 1996 |
|  | Nikola Miljković | Meliorativna Pedologija | Poljoprivredni fakultet, Novi Sad | 2005 |
|  | Goran J. Dugalić, Boško A. Gajić | Pedologija  | Univerzitet u Kragujevcu, Agronomski fakultet u Čačku | 2012 |
|  | Milivoj Belić, Ljiljana Nešić, Vladimir Ćirić | Praktikum iz pedologije | Poljoprivredni fakultet Novi Sad | 2014 |
|  | Hillel, D. | Introduction to Environmental Soil Physics | Elsevier, Amsterdam, Netherlands. | 2004 |
|  | Robert E. White | Principles and Practice of Soil Science | Blackwell publishing, Fourth edition | 2006 |

|  |  |  |
| --- | --- | --- |
| Znak univerziteta | UNIVERSITY OF NOVI SADFACULTY OF AGRICULTURE 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 8 | Znak fakulteta2 |
| Study Programme AccreditationUNDERGRADUATE ACADEMIC STUDIES *(Water management)* |
| Table 5.2 Course specification |