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| Course: | *Land Survey and Mapping* |
| Course id: |
| Number of ECTS: 6 |
| Teacher: | Pavel P. Benka PhD. |
| Course status | Mandatory |
| Number of active teaching classes (weekly) |
| Lectures:3 | Practical classes:3 | Other teaching types: | Study research work: | Other classes: |
| Precondition courses | None |
| 1. Educational goal

Introduction to survey techniques, production of topographic maps, measurements on maps, setting out to facilities. Introduction to the land cadastre and to the land consolidation. |
| 1. Educational outcomes

Students apply their knowledge in the further process of education as well as in future professional work and engineering problem solving. |
| 1. Course content

Basic concepts on the production and use of maps. Accessories and survey techniques: survey in orthogonal coordinates, survey by bearing and distance, photogrammetric survey, GPS survey. Detailed leveling. Production maps: classical method, digital form. The vertical presentation of the terrain, contour line interpolation, vertical terrain representation in digital form. Making longitudinal and transverse profiles. Fundamentals of GIS. Methods for calculating the surface area and volume, dividing plots to given areas. Setting out of facilities. Introduction to the land cadastre. Fundamentals of planning land territory and land consolidation: expropriation, redistribution of land. |
| 1. Teaching methods

Lectures, Practical classes, Consultations |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam  | Mandatory | Points |
| Lecture attendance | Yes | 5 | *Written part of the exam-tasks and theory* | Yes | 30 |
| Test 1 | Yes | 15 | *Oral part of the exam* | No | 20 |
| Test 2 | Yes | 15 |  |
| Exercise attendance | Yes | 15 |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
|  | Russel C. Brinker | *The Surveying Handbook* | Springer Science & Business Media | 1995 |
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| 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 |