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| Course: | *Geographic Information System* |
| Course id: |
| Number of ECTS: 6 |
| Teacher: | Pavel P. Benka PhD., Atila Bezdan PhD |
| Course status | Elective |
| Number of active teaching classes (weekly) |
| Lectures:2 | Practical classes:2 | Other teaching types: | Study research work: | Other classes: |
| Precondition courses | None |
| 1. Educational goal

To familiarize students with the theoretical foundations of Geographic Information Systems (GIS) and to enable students to use basic computer application software for geographic information systems. |
| 1. Educational outcomes

Students will use the acquired knowledge in applied geodesy in the further process of education as well as in future professional work and solving engineering problem. |
| 1. Course content

Introduction, differences of GIS related systems, applications and history. Types of spatial data, spatial data organization. Sources of spatial data. Working with raster data, working with vector data. Databases in GIS. The analysis of spatial data. Interpolation of spatial data. Creating thematic maps. The distribution of spatial data over the Internet. |
| 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 | 10 | *Oral part of the exam* | No | 20 |
| Test 2 | Yes | 10 |  |
| Exercise attendance | Yes | 25 |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
|  | Longley P, Goodchild M, Maguire D. Rhind D.  | Geographic Information Systems and Science | John Wiley & Sons, LTD | 2002 |
|  | T. Sutton, O. Dassau, M. Sutton | A Gentle Introduction to GIS | Spatial Information Management Unit, Office of the Premier, Eastern Cape,South Africa. | 2009 |
|  | - | QGIS Documentation | http://www.qgis.org/en/docs/index.html |  |

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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 |