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| Course: | **Water Resources Systems Analysis** |
| Course id: |
| Number of ECTS: 5 |
| Teacher: | **Bojan M. Srdjevic (Teacher) / Bosko D. Blagojevic (Assistant)** |
| 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

Acquiring knowledge on systems and systems analysis techniques for assessing dynamical performance of water resources systems and related complex decision making methodologies |
| 1. Educational outcomes

Skills in using methods and methodologies of contemporary systems analysis. |
| 1. Course content

*Theory*Introduction and classifications. Water resources systems. Systems modeling. Systems techniques. Dynamic performance of water systems. Systems control. Decision making support.*Practice*Example water systems and systems modeling. Modeling by different models. Performance indicators and their aggregation. Methods and models of decision making. Examples of applications of decision making tools within a framework of systems analysis of complex water systems. |
| 1. Teaching methods

Lectures, Practical classes |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam | Mandatory | Points |
| Lecture attendance | Yes | 10 | Written part of the exam | Yes | 30 |
| Exercise attendance | Yes | 20 | Oral part of the exam | Yes | 40 |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
|  | Srdjevic B. | Water Resources Systems Analysis  | Lecture notes (In Serbian) Faculty of Agriculture | 2007 |
| 2. | Srdjevic B. | Systems Analysis Methods in Engineering With Extensions in Environmental Engineering | Federal University of Bahia, Salvador, Brazil Lecture notes (in English) | 2003 |
| 3. | Loucks D.P., van Beek E. | Water Resources Systems Planning and Management: An Introduction to Methods, Models & Applications | UNESCO Publ. | 2005 |
| 4. | Saaty T.L. | The Analytic Hierarchy Process | McGraw-Hill, Inc.,Reprinted by RWS Publications, Pittsburgh (selected chapters) | 1980 |
| 5. |  |  | INTERNET SOURCES  |  |

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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 |