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| Course: | **WATER RESOURCES MANAGEMENT**  |
| Course id: |
| Number of ECTS: 6 |
| Teacher: | **Bojan Srdjevic, Zorica Srdjevic** |
| Course status | Obligatory |
| 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

The topic will give an understanding and an introduction to water resources management. |
| 1. Educational outcomes

On successful completion of this subject, the students should: a) have acquired understanding of concept and importance of water resources planning and management with focus on agricultural water needs; b) have acquired basic knowledge of a number of methods and tools in water management; c) be able to identify suitable methods and tools for solving water allocation problems; d) be able to critically assess research results; e) improve skills for independent learning, reporting and presentation. |
| 1. Course content

Introduction. Planning and control of water and related resources. Modeling of water resources (surface water, ground water, integrated waters).Small, medium and large spatiotemporal scales. Identifying and assessing water demands and water availability for multiple purposes. Systems analysis and optimization approaches and methods. Socioeconomic aspects in water management. Performance of integrated systems. Farmers and their role in water management. Traditional and modern long-term performance measures for water systems (robustness, reliability, risk, resiliency and vulnerability). |
| 1. Teaching methods

Consultations. In case there are sufficient students(4+) lectures and exercises will be organized. Students will accomplish a semester project and present results in oral and in writing. The semster project counts for 60% of the final grade. The final grade is oral and counts for 40%. The lectures are held in English. Retake exams may be oral only. |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam (izabrati) | Mandatory | Points |
| Semester project | Yes | 60 | Oral | Yes | 40 |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
| 1. | Srdjevic B. | Systems Analysis Methods in Engineering With Extensions in Environmental Engineering, | Federal University of Bahia, Salvador, Brazil. (Lecturing Notes) | 2003 |
| 2. | Hashimoto T. | Robustness, Reliability, Resilience and Vulnerability Criteria for Water Resources Planning | Ph. D. dissertation Cornel Univ., Ithaca, N.Y.  | 1980 |
| 3. | Srdjevic B. etal. | An Objective Multi-criteria Evaluation of Water Management Scenarios, | International Journal of Water Resources Management 18 (1), 65-84. | 2004 |
| 4. | Keeney R.L., and Raiffa H.  | Decisions with Multiple Objectives: Preferences and Value Tradeoffs  | Cambridge University Press, Cambridge, England. | (1993). |
| 5. |  |  | Internet sources (articles, reports, presentations). |  |

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| Znak univerziteta | UNIVERSITY OF NOVI SADFACULTY OF AGRICULTURE 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 8 | Znak fakulteta2 |
| Study Programme AccreditationMASTER ACADEMIC STUDIES WATER MANAGEMENT |
| Table 5.2 Course specification |