**Table 5.1** Course specification to doctoral study programs

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| **Course name: Water pollution control** | | |
| **Teacher or teachers:** [**Milenković S. Slobodan**](../P%209.3%20Knjiga%20Nastavnika%20DOS%20He/21.%20Slobodan%20S.%20Milenkovic,%20redovni%20profesor.xlsx)**,** [**Milićević B. Dragan**](../P%209.3%20Knjiga%20Nastavnika%20DOS%20He/59.%20Dragan%20B.%20Milicevic,%20docent.xlsx)**,** [**Ranđelović S. Marjan**](../P%209.3%20Knjiga%20Nastavnika%20DOS%20He/62.%20Marjan%20S.%20Randjelovic,%20docent.xlsx) | | |
| **Course status:** Elective | | |
| **Number of ECTS:** 10 | | |
| **Precondition courses:** None | | |
| **Educational goal**  Building students’ capacity for independent professional, research and scientific work in the area of communal hydrotechnics. | | |
| **Educational outcomes**  Active use of knowledge in the field of transformation and water quality management. | | |
| **Course content**   1. Water quality (12)   - Basic physical, chemical, biological indicators of water quality  - Chemism of processes in the water  - Biological processes in the water  - Contemporary knowledge of water quality   1. Applied technologies for water quality transformation (16)   - Unit operations of drinking water purification  - Unit operations of communal and industrial waste water treatment  - Sludge treatment methods in the waste water treatment facilities   1. Water quality transformation systems (16)   - Technical and technological design of water quality transformation facilities.  - Variant solutions and design criteria  - Water quality transformation facilities   1. Control and management of the water quality transformation system (8)   - System performance measurements  - Regulation and optimization of the system operation  - System operation management   1. Water quality transformation system operation in special conditions (8) | | |
| **Literature**  1. Miloje Milojević, Snabdevanje naselja vodom i kanalisanje**,** Belgrade, 1985.  2. Dejan Ljubisavljević: Prečišćavanje otpadnih voda, GF, Belgrade (1995)  3. Degremont: Tehnika prečišćavanja vode, Beograd (1974)  4. S.E. Jorgensen: Industrial waste water management, 1979  5. Ross McKinney: Microbiology for Sanitary Engineers, J. Willy, 1971. | | |
| **Number of active teaching classes (weekly)** | Lectures: 4 | Study research work: 0 |
| **Teaching methods**  Lectures, mentor work, consultations, research work in laboratory and in the field, term paper. | | |
| **Knowledge evaluation (maximum 100 points)**  **Pre-examination obligations Points Final exam Points**  Term paper **55**  Оral part of the exam **45** | | |