**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%2C%20redovni%20profesor.xlsx)**,** [**Milićević B. Dragan**](../P%209.3%20Knjiga%20Nastavnika%20DOS%20He/59.%20Dragan%20B.%20Milicevic%2C%20docent.xlsx)**,** [**Ranđelović S. Marjan**](../P%209.3%20Knjiga%20Nastavnika%20DOS%20He/62.%20Marjan%20S.%20Randjelovic%2C%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)
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| **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, 19795. 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** |