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

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| **Course name: Climate change implications on water management** |
| **Teacher or teachers:** [**Todorović R. Mladen**](../P%209.3%20Knjiga%20Nastavnika%20DOS%20He/45.%20Mladen%20R.%20Todorovic%2C%20redovni%20profesor.xlsx)**,** [**Trajković R. Slaviša**](../P%209.3%20Knjiga%20Nastavnika%20DOS%20He/34.%20Slavisa%20R.%20Trajkovic%2C%20redovni%20profesor.xlsx) |
| **Course status:** Elective |
| **Number of ECTS:** 10 |
| **Precondition courses:** None |
| **Educational goal**The course focuses on the possible impact of climate change on hydrological balance, water resources availability and their distribution among the sectors. |
| **Educational outcomes** Understanding of the climate change scenarios, their results and impacts on water resources availability and management in the Mediterranean region including the possible mitigation and adaptation measures.  |
| **Course content**1) Climate change, greenhouse effect and greenhouse gases2) Climate change projections for the Mediterranean 3) Climate change impact on hydrological balance and water demand and supply4) Hydrological extremes, droughts and floods. Drought indices and their estimation in the context of climate change. 5) Impact of CO2, temperature, ozone and UV-B on irrigation water requirements and agricultural productivity6) Mitigation and adaptation measures; uncertainties of estimates. 7) CREAT, Climate Resilience Evaluation and Awareness Tool. Examples of application. |
| **Literature**1. Giorgi F. and P. Lionello (2008). Climate change projections for the Mediterranean region. Global and Planetary Change 63 (2008) 90–104.2. IPCC (Intergovernmental Panel on Climate Change), (2007). Fourth assessment report: climate change 2007. IPCC, Geneva, Switzerland. Available: www.ipcc.ch/publications\_and\_data/publications\_and\_data\_reports.shtml |
| **Number of active teaching classes (weekly)** | Lectures: 4 | Study research work: 0 |
| **Teaching methods**Presentation of theoretical concepts and their explanation (theory).Presentation of CREAT (WEAP), Guided exercises. |
| **Knowledge evaluation (maximum 100 points)****Pre-examination obligations Points Final exam Points**Lecture attendance **10**  Oral part of the exam **30**Colloquium exam **30**Term paper **30**  |