**Table 5.2a** Elective courses on doctoral studies- **DOS HYDROINFORMATICS**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No** | **Course code** | **Course name** | **Semester** | **Course status** | **Active teaching classes** | | | **ECTS** |
| **L** | **P** | **OTT** |
| **Elective course of unit 1** | | | | | | | | |
| 1. | DH121 | [Applied numerical methods for engineers](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/2.%20Table%205.1%20Applied%20numerical%20methods%20for%20engineers.docx) | 1 | E | 4 | 0 | 0 | 10 |
| 2. | DH122 | [Special topics in mathematical statistics](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/3.%20Table%205.1%20Special%20topics%20in%20mathematical%20statistics.docx) | 1 | E | 4 | 0 | 0 | 10 |
| 3. | DH123 | [Selected chapters in applied mathematics](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/4.%20Table%205.1%20Selected%20chapters%20in%20applied%20mathematics.docx) | 1 | E | 4 | 0 | 0 | 10 |
| **Elective course of unit 2** | | | | | | | | |
| 4. | DH131 | [Selected chapters in hydrology](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/5.%20Table%205.1%20Selected%20chapters%20in%20hydrology.docx) | 1 | E | 4 | 0 | 0 | 10 |
| 5. | DH132 | [Selected chapters in hydraulics](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/6.%20Table%205.1%20Selected%20chapters%20in%20hydraulics.docx) | 1 | E | 4 | 0 | 0 | 10 |
| 6. | DH133 | [Hydroinformatics: concept, methods and tools](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/7.%20Table%205.1%20Hydroinformatics%20concept,%20methods%20and%20tools.docx) | 1 | E | 4 | 0 | 0 | 10 |
| 7. | DH134 | [Physically based hydro technical modeling](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/8.%20Table%205.1%20Physically%20based%20hydro%20technical%20modeling.docx) | 1 | E | 4 | 0 | 0 | 10 |
| **Elective course of unit 3** | | | | | | | | |
| 8. | DH2121 | [GIS, remote sensing in water and land management](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/10.%20Table%205.1%20GIS,%20remote%20sensing%20in%20water%20and%20land%20management.docx) | 2 | E | 4 | 0 | 0 | 10 |
| 9. | DH2122 | [Fuzzy logic and hydrological applications](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/11.%20Table%205.1%20Fuzzy%20logic%20and%20hydrological%20applications.docx) | 2 | E | 4 | 0 | 0 | 10 |
| 10. | DH2123 | [Scientific programming](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/12.%20Table%205.1%20Scientific%20programming.docx) | 2 | E | 4 | 0 | 0 | 10 |
| 11. | DH2124 | [Intelligent data processing](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/13.%20Table%205.1%20Intelligent%20data%20processing.docx) | 2 | E | 4 | 0 | 0 | 10 |
| 12. | DH2125 | [Artificial neural networks and hydrological applications](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/14.%20Table%205.1%20Artificial%20neural%20networks%20and%20hydrological%20applications.docx) | 2 | E | 4 | 0 | 0 | 10 |
| 13. | DH2126 | [Knowledge representations and standardization in water science](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/15.%20Table%205.1%20Knowledge%20representations%20and%20standardization%20in%20water%20science.docx) | 2 | E | 4 | 0 | 0 | 10 |
| **Elective course of unit 4** | | | | | | | | |
| 14. | DH31231 | [Advanced programming with soft computational techniques](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/17.%20Table%205.1%20Advanced%20programming%20with%20soft%20computational%20techniques.docx) | 3 | E | 4 | 0 | 0 | 10 |
| 15. | DH31232 | [Water quality](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/18.%20Table%205.1%20Water%20quality.docx) | 3 | E | 4 | 0 | 0 | 10 |
| 16. | DH31233 | [Water pollution control](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/19.%20Table%205.1%20Water%20pollution%20control.docx) | 3 | E | 4 | 0 | 0 | 10 |
| 17. | DH31234 | [Water resources systems analysis](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/20.%20Table%205.1%20Water%20resources%20systems%20analysis.docx) | 3 | E | 4 | 0 | 0 | 10 |
| 18. | DH31235 | [Irrigation scheduling under variable water availability and environmental concerns](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/21.%20Table%205.1%20Irrigation%20scheduling%20under%20variable%20water%20availability%20and%20environmental%20concerns.docx) | 3 | E | 4 | 0 | 0 | 10 |
| 19. | DH31236 | [Selected chapters in irrigation and drainage](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/22.%20Table%205.1%20Selected%20chapters%20in%20Irrigation%20and%20Drainage.docx) | 3 | E | 4 | 0 | 0 | 10 |
| 20. | DH31237 | [On-demand pressurized irrigation networks](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/23.%20Table%205.1%20On-demand%20pressurized%20irrigation%20networks.docx) | 3 | E | 4 | 0 | 0 | 10 |
| 21. | DH31238 | [Eco-efficiency of water systems](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/24.%20Table%205.1%20Eco-efficiency%20of%20water%20systems.docx) | 3 | E | 4 | 0 | 0 | 10 |
| 22. | DH31239 | [Climate change implications on water management](../../Prilozi%20DOS%20H/P%205.2%20KNJIGA%20PREDMETA%20-%20BOOK%20OF%20COURSES/25.%20Table%205.1%20Climate%20change%20implications%20on%20water%20management.docx) | 3 | E | 4 | 0 | 0 | 10 |