**«8D08603 - Water resources management using IT-technologies»**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| № | UС/OC | DisciplineCode | Name of the discipline,  forming competencies | Total in academic credits | Distribution of credits by courses and semesters | | | | | |
| 1 course | | 2 course | | 3 course | |
| 1 | 2 | 1 | 2 | 1 | 2 |
| **1** |  | **Theoretical classess** | | **45** |  |  |  |  |  |  |
| **1.1** | **CS** | **Core subjects cycle** | | **20** |  |  |  |  |  |  |
|  |  | **Module 1. Methodology of research works** | |  |  |  |  |  |  |  |
| 1.1.1 | UC | MSR 8201 | Methods of scientific research | 5 | 5 |  |  |  |  |  |
| 1.1.2 | UC | AW 8202 | Academic writing | 5 | 5 |  |  |  |  |  |
| 1.1.3 |  | TP 8203 | Teaching practice | 10 |  | 10 |  |  |  |  |
| **1.2** | **MS** | **Major subjects cycle** | | **15** |  |  |  |  |  |  |
|  |  | **Module 2. Assessment and problems of water resources use.** | | **5** |  |  |  |  |  |  |
| 1.2.1 | OC | AHHRRB  8301 | Assessment of hydrological hazards and risks in river basins | 5 | 5 |  |  |  |  |  |
| 1.2.2 | OC | TWRP  8302 | Transboundary water resource problems |
|  |  | **Module 3. Agricultural supply and water treatment of pastures** | | **10** |  |  |  |  |  |  |
| 1.2.3 | OC | REA  8303 | Renewable energy for agriculture | 5 | 5 |  |  |  |  |  |
| 1.2.4 | OC | MWMS  8304 | Modern water management system |
| 1.2.5 | OC | ACSAWSGA  8305 | Assessment of the current state of agricultural water supply to grazing areas | 5 | 5 |  |  |  |  |  |
| 1.2.6 | OC | MPPEDAWSIP 8306 | Modern pumping power equipment and devices for agricultural water supply and irrigation of pastures |
|  |  | **Module 4. Оценка и комплексное использование водных ресурсов** | | **5** |  |  |  |  |  |  |
| 1.2.7 | OC | AHHRRB  8201 | Assessment of hydrological hazards and risks in river basins | 5 | 5 |  |  |  |  |  |
| 1.2.8 | OC | MSIUWR  8307 | Modern system of integrated use of water resources |
|  |  | **Module 5. Стратегическое планирование и сбалансированное использование водных ресурсов** | | **10** |  |  |  |  |  |  |
| 1.2.9 | OC | SPWUWC 8308 | Strategic planning of water use and water conservation | 5 | 5 |  |  |  |  |  |
| 1.2.10 | OC | ERBUWR  8309 | Environmental rationale for balanced use of water resources |
| 1.2.11 | OC | MMCCR  8310 | Modern methods of calculating complex reservoirs | 5 |  | 5 |  |  |  |  |
| 1.2.12 | OC | AICHFE 8311 | Assessment of the impact of the construction of hydraulic facilities on the environment |
| 1.2.13 |  | RP 8312 | Research practice | 10 |  | 10 |  |  |  |  |
| **2** | **DRW** | **Research work by a doctoral candidate** | | **123** |  |  |  |  |  |  |
| 2.1 |  |  | Research work of a doctoral candidate, including internships and doctoral thesis | 123 | 5 | 10 | 30 | 30 | 30 | 18 |
| **4** | **FA** | **Final assessment** | | **12** |  |  |  |  |  |  |
| 4.1 |  |  | Writing and defending doctoral thesis | 12 |  |  |  |  |  | 12 |
|  |  |  | **Total** | **180** | **30** | **30** | **30** | **30** | **30** | **30** |