Academic course description – Example

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| BACHELOR ‘S PROGRAMME2ND YEAR OF STUDY, 2nd SEMESTER |

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| **Course title** | **WATER RESOURCE MANAGEMENT** |
| Course code | JHM2305 |
| Course type | full attendance/ tutorial |
| Course level | 1st cycle (bachelor’s degree) |
| Year of study, semester | 2nd year of study, 1st semester |
| Number of ECTS credits | 6 |
| Number of hours per week | 4 (2 lecture hours + 2 seminar hours) |
| Name of lecture holder | Associate Professor Ionut MINEA |
| Name of seminar holder | Associate Professor Ionut MINEA |
| Prerequisites | Advanced level of English  |
| A | **General and course-specific competences** |
|  | **General competences**:* Acquiring the adequate professional and transversal competencies, according to the specific requirements of the subject and the qualifications listed in the National Index of Higher Education Qualifications (RNCIS) for Hidrology-Meteororology specialization

**Course-specific competences**:* Identification of the main hydrological resources in Romania
* Use specific data base in hydrological studies
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| B | **Learning outcomes** |
|  | * Calculate statistical parametres based on measurements or hydrological year books
* Design managements plans on water resources management for a given hydrographic basin or geographic region
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| C | **Lecture content** |
|  | Introduction - water on Earth and the importance of water for man and his environment Considerations on the notions of: resource, management and capitalization. Appearance forms of water on Earth.The volume of water in nature Planetary Ocean Resources (I)Planetary Ocean Resources (I)Inland water resources - groundwater resources Continental water resources - water resources of rivers Inland water resources - water resources from lakes and swamps Glacial water resources and ice caps Water resources of the Black Sea Romania's water resources. Current issues and their management (I) Romania's water resources. Current issues and their management (II) Pollution of water resources - sources of pollution Pollution of aquatic units in Romania  |
| D | **Recommended reading for lectures** |
|  | 1. Amăriucăi M. (2000) *Gestionarea și valorificarea resurselor hidrosferei și atmosferei*, Ed. Univ. Al.I.Cuza, Iași.
2. Acatrinei G. (1994) *Poluarea si protectia mediului ambiant*, Iasi.
3. Cojocaru I. (1995) *Surse, procese si produse de poluare*, Ed. Junimea, Iași.
4. Giurma I, Crăciun I. (2010) *Managementul integrat al resurselor de apă*, Ed. Politehnium, Iași.
5. Romanescu G. (2000) *Resursele Oceanului Planetar*, Ed. Univ. Stefan cel Mare, Suceava.
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| E | **Seminar content** |
|  | Identifying the way to capitalize of surface water resources within the local space. Field trip in the area of the accumulation lakes in Nicolina basin (Ezăreni and Ciurbeşti)Identifying the way to capitalize groundwater resources in the local space. Field application in the area of ​​the experimental station of Ciurea (Tinoasa-Ciurea basin) Morphometric elements of aquatic units Mapping groundwater resources Computer-assisted modeling for the assessment of hydrological resources in a river basin The Black Sea - economic and geopolitical role in south-eastern Europe Drinking water - ways to analyze the quality of drinking water Ways of graphic representation of water chemistry Identifying the main sources of pollution of water resources in the local area.  |
| F | **Recommended reading for seminars** |
|  | 1. Gâştescu, P., Murarescu, O., Dinu, I., Breţcan, P., (2002), *Hidrologie continentală*, Ed. Roza Vânturilor, Târgovişte.
2. Giurma, I., Crăciun, I., Giurma, Catrinel, Raluca, (2003), *Hidrologie şi hidrogeologie- aplicaţii*, Univ. Tehnică “Gh Asachi” , Iaşi.
3. Minea I. (2012) *Bazinul hidrografic Bahlui – studiu hidrologic*, Ed. Univ. Al.I.Cuza Iasi.
4. Minea I., Romanescu G., (2007) *Hidrologia mediilor continentale. Aplicaţii practice*, Casa Edit. Demiurg, Iaşi.
5. Mustata G. (2000) *Hidrobiologie*, Ed. Univ. Al. I. Cuza, Iasi.
6. Pantazica M. (1974) Hidrografia Campiei Moldovei, Ed. Junimea, Iasi.
7. Pişotă, I., Zaharia, Liliana, (1995), *Hidrologie – lucrări practice*, Ed. Univ. Bucureşti.
8. Romanescu G., Ștefan M. (2012) Geografia Mării Negre, Ed. Transversal, Târgoviște.
9. Sorocovschi, V., Buta, I., (1994), *Hidrometrie (măsurători şi calcule hidrologice*), Univ. Babeş-Bolyai, Cluj-Napoca.
10. Trufaș C (2003) *Hidrochimie*, Ed. Agora, București.

Vespremeanu E. (2004), *Geografia Mării Negre*, Ed. Universitatii Bucuresti |
| G | **Education style** |
| learning and teaching methods | Lecture, explanation, problematization, practical application |
| assessment methods | Examination + Seminar Grades |
| Language of instruction | English |