



QUALITY ASSESSMENT BY EU PARTNERS (PARTNER P2: UNIVERSITY OF SALZBURG)

Revised course 1: “Hydrology”

QUALITY ASSESSMENT
Quality criteria 1: Number of credit units for lectures, practical sessions and self-learning are appropriate to the contents
<ul style="list-style-type: none"> <p><i>Evaluation</i></p> <p>The distribution of credits among lectures, practical sessions and self-learning is appropriate. A high ratio of the awarded credits is allocated to practical sessions and self-learning, along with to in-class discussions, whereas only 20 out of 120 work hours are assigned to theoretical lectures (i.e. to presentations by the lecturer). This is of high relevance and very positively valued: we consider that it is a good approach to train highly capacitated and critical thinking professionals ready to address this important topic in practice.</p> <p>First, the special weight given to practical sessions and the associated practical assignments should enable students to better integrate the concepts and tools introduced during the theoretical sessions and, most importantly, to reflect and experience themselves for the first time how to put into practice all these concepts/ tools in reality. The development of field work and laboratory tasks using equipment and tools previously introduced in the lectures is significantly positive in this regard. Second, the high ratio of hours devoted to in-class discussions (20 hours of workload) appears promising for the development of a reflexive way of thinking among students, which can be barely developed through the mere passive involvement in theoretical lectures and becomes crucial in order to train professionals open to alternatives and, thus, ready for a sustainable management of hydrological processes. Students are given the chance to express themselves, which, additionally, allows them to better integrate their already existing knowledge with the new concepts taught. The combination of in-class discussions with quizzes, etc. (as suggested) makes the course experience more attractive, which might increase the students’ motivation on the topic and the course.</p> <p>For all these reasons, the high weight in terms of the number of ECTS given to practical sessions, in-class discussions and self-learning is very positively valued. The structure and organisation of the course proposed lead us to believe that highly capacitated and critical thinking professionals are trained.</p> <p><i>Strategies for improvement</i></p> <p>Everything is deemed correct. The course looks well organised and prepared, the reason why the strategies for improvement that we point out here only concern some very particular aspects that might additionally be considered by the course organisers. As with other courses, a promising strategy for improvement might be to consider the involvement of local stakeholders (such as local professionals in the field) in the field work and laboratory tasks and/or in-class discussions, so that students are given the chance to work with them and can gain first-hand knowledge on the opportunities, hurdles, etc. faced in practice when it comes to manage hydrological processes in the country. This can substantially enrich the practice-oriented knowledge of students and potentially translate into better skilled future professionals.</p> <p>In any case, we would strongly recommend to provide more in-depth information in the syllabus regarding two aspects: 1) the way the provision of theoretical knowledge and the provision of practical knowledge are interconnected in the course timeline, and 2) the course assignments. Regarding the first (interconnection between theoretical and practical knowledge), the course descriptions and distributed workloads suggest that a high interconnection exists and most emphasis is put on the gain of a practice-oriented experience, the reason why the course is very positively evaluated. The way theory and “practice” are interlinked in the timeline remains, however, unclear in the provided course schedule. This information should, thus, be made explicit, so that it is clear when and how discussions, practical sessions, etc. take place. Regarding the second (course assignments), more extensive descriptions would enable to better identify the objectives, tasks to do in each of them. The current descriptions appear to be misleading to us. For instance, it seems that assignments 1 and 2 at least partially consist of theoretical presentations/ explanations on the functioning of the equipment provided by the lecturer, which might entail that</p>

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they can actually not be classified as assignments. These improvements in the syllabus would allow us to provide more precise and better targeted recommendations for improvement.

Quality criteria 2: Total number of credit units in the course is correct and appropriate

• *Evaluation*

The total number of credit units awarded is correct and appropriate. This is illustrated by the number of hours devoted to the course (120 hours, including lectures, practical sessions and self-learning) and the fact that 1 ECTS equates to 20 hours in Bhutan.

• *Strategies for improvement*

None. Everything is deemed correct.

Quality criteria 3: Positioning of the courses in Curricula is appropriate based on the progressive level of difficulty

• *Evaluation*

The positioning of the course in the curricula is appropriate. Its positioning in the second year of BSc students in Environment and Climate Studies is deemed as appropriate, as this theme constitutes a specialised area that requires the previous provision of basic knowledge in environmental management, so that all concepts and practices can be more accurately integrated and put into practice. The course can constitute the basis for courses going more in-depth in the topic during the third year of the Bachelor's degree.

• *Strategies for improvement*

None. Everything is deemed correct.

Quality criteria 4: Tests are suitable and appropriate to support transferable skills

• *Evaluation*

The designed grading system is appropriate to support transferable skills in practice. The derivation of the awarded grade entirely through the evaluation of the quality of practical assignments and self-learning activities is proof of this fact. It is noteworthy that a fairly wide range of activities are considered during the evaluation process, enabling to assess the extent to which students have integrated the theoretical knowledge and are able to use it in practice, as well as other important skills in the professional world, such as the communication and presentation of results in front of an audience or the writing of reports. The activities evaluated include the participation in in-class discussions, team work, written assignments and oral presentations. Very positively valued is also the fact that the suggested assignments are interconnected among them (each builds on the results of the previous ones), constituting a large project.

During the course, thus, not only the acquisition of theoretical knowledge by students is evaluated, but, most importantly, the ability of students to reflect about and utilise the learnt concepts in practice in order to give an answer to real situations. The formation of a reflexive way of thinking and acquisition of practice-oriented knowledge constitute the main elements of evaluation. This is very positively valued by the reviewers, as a very good procedure to make the skills acquired transferable in practice.

• *Strategies for improvement*

Everything is deemed correct. We might only suggest slightly reducing the percentage weight attributed to the quality of the oral presentations done by students, when calculating the final grade, in favour of the remaining activities evaluated. We consider that too much importance is given to the oral presentation, whereas the remaining activities are also of high relevance. Apart from that, we do not have any further suggestions. The provision of further suggestions would require that more details are previously provided in the syllabus on the suggested assignments, as pointed out under quality criteria 1. This would be really desirable, so as to being able to give you more precise suggestions. For example, it remains unclear to us, what the categories "seminar group assignments" and "use of equipment and generation of quality data" are and how they differentiate from each other. It is also unclear how each of them are connected to the 4 assignments that you describe at the end of the syllabus.

Quality criteria 5: TLM and assessment strategy support students in undertaking the course i.e. prerequisites are helpful and relevant, assessments helps gauge students understanding etc.

• *Evaluation*

Prerequisites should be defined for attending this course, which has not been done. This is especially relevant given the required previous knowledge on basic concepts in environmental management but particularly in geology in

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**COURSES REVISED AND NEWLY CREATED BY
PARTNER P9 (ROYAL UNIVERSITY OF BHUTAN)**

Work Package 2



order to be able to follow the course contents smoothly. On the other hand, regarding the e-learning materials, no evaluation can be conducted about them from our side, as we do not have access to them.

- *Strategies for improvement*

The introductory character of the course to the field of hydrology explains the establishment of no required previous knowledge in this field as a prerequisite for attending the course. Courses providing basic knowledge about geology and environmental management should, however, be included in the list of prerequisites. These courses need to be held during the first year of the BSc in Environment and Climate Studies, to which this course belongs.

Regarding the e-learning materials, the absence of access to them (we do not have access to them) entails no knowledge from our side on the relevance of the suggestions that we make here. Some of our suggestions might have already been put in practice. First, we would suggest making available the slides and videos of the theoretical lectures on the e-learning platform, with the aim to make it possible for students to revisit the learnt contents anytime and as many times as desired. This might enable a better understanding of any parts that might not have been clearly comprehended during the lectures and encourage self-working at home. Second, it might be useful to create an online chat. An online chat might substantially ease the communication and encourage the discussion among students and with professors on any content-related or organisation-related issues/doubts that might arise. Third, additional complementary literature and interactive online practical exercises might be offered for all those willing to learn more on the topic. This might additionally make the learning experience more attractive.

Quality criteria 6: Theory/Practice-oriented components are sufficient to cater the learning outcomes and skills development

- *Evaluation*

Theory/Practice-oriented components are sufficient to cater the learning outcomes and skills development. Through both theoretical and practical sessions all relevant theoretical and practical themes are covered for the acquisition of the promised learning outcomes and skills.

- *Strategies for improvement*

Everything is deemed correct. However, further clarifications should be offered in the syllabus in order to be able to provide a more accurate evaluation (see suggestions under quality criteria 1).