



COURSES REVISED AND NEWLY CREATED BY PARTNER P12 (JAWAHARLAL NEHRU UNIVERSITY)

Work Package 2



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

# New course 1: "Risk, Vulnerability and Resilience: Concepts and Understanding"

### QUALITY ASSESSMENT

Quality criteria 1: Number of credit units for lectures, practical sessions and self-learning are appropriate to the contents

#### • Evaluation

Credit units for lectures, practical sessions and self-learning are provided. Most part of the credit units are devoted to theoretical lectures, while the practical and self-learning part receive little attention. This is justified by the introductory character of the course to the field of vulnerability and resilience. It is assumed that the contents taught are worked from a practical perspective in other courses. This (i.e. whether the topic is addressed or not from a practical perspective in other courses) remains, however, unclear through the descriptions provided in the syllabus and should be cleared up in order to be able to provide a more accurate assessment. The focus on risk assessment particularly asks for practical exercises and self-learning activities that allow students to use the acquired knowledge in a professional way (in a practical case). Thus, especially if no practical courses on the topic are provided in the master's programme, theory and practice should be further integrated and interrelated in the course process (see suggestions for improvement below).

#### • Strategies for improvement

The provision of theoretical knowledge is required in order to establish a good knowledge basis on the topic. Nevertheless, the conversion of (part of) some theoretical sessions into practical sessions should be considered, not least those addressing methodologies for the assessment of risk/vulnerabilities. This is especially relevant so as to training future professionals that will not only be knowledgeable of the assessment tools and methodologies available but also capable of using them in real case studies. Practical sessions might include practical work with some of the software mentioned in the course, but also activities in the field and work with local actors in charge of risk management or having been exposed to hazards, among others. This would substantially increase the experience acquired by students and potentially translate into better skilled future professionals.

In the syllabus, it is pointed out that "blended teaching and learning approaches for interaction lecturing" are used. Further details are, however, not provided, which makes it hard to offer strategies for improvement in this area. If not considered yet, it is suggested that some or at least a part of the theoretical sessions are conceived as in-class discussions. In-class discussions would provide dynamism to the course and give the students a chance to express themselves and better integrate their already existent knowledge on the topic with the new contents taught. The usage of games such as quizzes might also be considered, as it appears to be the case through the indications rendered in the syllabus. Again, further details should be provided in the syllabus on how and when quizzes are used, in order to be able to give you further strategies for improvement.

All these amendments should involve the formulation of more practical assignments additional to the one suggested in the syllabus. These assignments should not only be based on a review of scientific literature (as it seems to be the case with the proposed assignment), but also constitute cases of exploration of risks, vulnerabilities, etc. in reality. Additionally, both teamwork and individual assignments should be offered to the student. All the assignments might additionally be linked to a final practical project that builds on all theoretical and practical aspects addressed. Quality criteria 2: Total number of credit units in the course is correct and appropriate

#### Evaluation

The total number of credits awarded is too high if a workload of 56 hours is estimated.

• Strategies for improvement

As 1 ECTS is equal to circa 28 hours, the course should be awarded 2 ECTS, or the workload increased to approximately 120 hours. We would especially recommend increasing the workload for students, if possible. Indeed, the ratio of hours devoted to lectures is too high. Workload increases in the form of practice-oriented activities are desirable.



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# 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 first semester of MA studies in Disaster Studies is deemed as appropriate, given the introductory character of the course in the field of disaster management, on which (it is assumed) the master places the focus. The subject area addressed in the course constitutes the backbone of the master, the reason why it is considered primordial to position it in the first semester, before other courses are offered that go more in-depth into other aspects in the following semesters.

• Strategies for improvement

## None. Everything is deemed correct.

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

#### Evaluation

Eighty percent of the grade is based on the successful completion of a mid-term and a final written examination. Using this approach is reasonable in a theoretical introductory course, as it is the case here. However, it does not result appropriate to support transferable skills. Thus, it should only be utilised if practical courses do exist in the master's programme dealing with the topic of the course and using a completely different evaluation system (more practice-oriented). If this was not the case, the tests and grading system used in the course would not be appropriate (see strategies for improvement below). The usage of mostly only exams is not a suitable way to evaluate the level of understanding and skills gained by the students on the subject. Students might be able to successfully reflect on the theoretical and/or practical questions posed in an exam, but this doesn't automatically equate to the capability to use this knowledge to work on real cases in practice.

### • Strategies for improvement

You can find strategies for improvement under "quality criteria 1", where the provision of more practical sessions and the related practical assignments is strongly recommended. Most part of the grade should be obtained through the evaluation of the quality of practical assignments. Practical assignments should include tasks involving workgroup, and the grade be a mix of written assignments, oral presentations, discussions and the final exam. Particularly interesting might be the involvement of local stakeholders during the practical assignments, given their specific knowledge upon the opportunities and challenges that appear in practice while using e.g. each of the introduced tools for risk assessment. This might widen the practical perspective of students.

Through the provided descriptions in the syllabus, it appears that the proposed individual assignment will take place after the completion of the theoretical sessions, even though this should be further clarified in the syllabus. While this is a reasonable way to proceed, we would strongly recommend to proceed the opposite way, i.e. to mix lectures, seminars and practical sessions in the timeline. The reason is that the acquisition of practical knowledge on each of the subjects right after the corresponding theoretical sessions might enable students to better relate the theoretical concepts learned and its practical implementation. As students' memory is limited, this can potentially have an impact on the skills transferability.

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

The introductory character of the course to the master Disaster Studies justifies the absence of prerequisites. The prerequisites for attending the master apply. However, the lecture materials should not be limited to a listing of recommended publications, some scientific papers and the lecture slides.

Strategies for improvement

Since we do not have access to the e-learning materials, we do not know whether the suggestions that we make here can be useful. Maybe some of the suggestions mentioned have already been adopted. Our first suggestion concerns the desirability of providing videos on the theoretical sessions in the e-learning platform, so that students can relisten and review the learnt contents anytime. This might allow a better understanding and encourage self-working at home. Second, an online chat as well as interactive online practical exercises might be created, which would make it possible to easily interact and discuss with the professors and other students via the chat, on the one hand, and make the learning experience more attractive and allow all students interested in the topic to learn more about it, on the other hand.





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

#### • Evaluation

Theory-oriented components are sufficient to cater the learning outcomes and knowledge development, but this is not the case with practice-oriented components. The practice-oriented components should be further developed in the course planning and evaluation process to value the student work. This is especially required if the course contents are not further worked in other more practice-oriented courses during the master's programme.

• Strategies for improvement

The strategies suggested are pointed out under "quality criteria 1 and 4".



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

# **New course 2: "Remote Sensing, GIS for Emergency Management"**

### QUALITY ASSESSMENT

Quality criteria 1: Number of credit units for lectures, practical sessions and self-learning are appropriate to the contents

#### • Evaluation

Considering the practical character of the contents taught, it is resolved that the share of credit units for lectures, practical sessions and self-learning is not appropriate. The descriptions in the syllabus suggest that most of the credit units are devoted to theoretical sessions, whereas units for both practical sessions and self-learning remain limited. This is striking in the field of GIS, in which most efforts should be put in the provision of practical skills, so that students are able to use the tool to solve real problems. The acquisition of theoretical knowledge on the functioning of GIS and remote sensing does not automatically equate to the acquisition of skills on its proper usage. This is the reason why this aspect becomes critical. The extent to which practical parts are included within the theoretical sessions remains, however, unclear. This latter point should be further clarified in the syllabus. In any case, it is apparent that theory and practice should be further integrated and interrelated in the course process.

#### • Strategies for improvement

The descriptions in the syllabus suggest that most of the sessions offered are theoretical sessions. Therefore, a conversion of at least (parts of) some of the theoretical sessions into practical sessions becomes very desirable. This is particularly desirable for those sessions addressing the compilation, processing and analysis of data. Practical work with the software (GIS) in the form of case studies will make it possible to train future professionals not only knowledgeable of the capabilities that GIS offers for disaster management, but, most importantly, able to use these capabilities for the resolution of cases in practice. The engagement of and work with local stakeholders during the sessions devoted to disaster management in India might be additionally considered (e.g. conjointly working on cases with the disaster management framework of India). This can substantially increase the practical experience acquired by students, as local professionals have sound knowledge on the available tools and strategies in the country and the main opportunities and hurdles found in practice.

Further, the conception of some of the theoretical sessions as in-class discussions might be considered. In-class discussions constitute a more attractive way of presenting the theoretical materials and give the students a chance to express themselves and better integrate their already existent knowledge on the topic with the new contents taught. Another option is the usage of games and quizzes during the theoretical sessions, in order to further increase the dynamism of the course. Although it appears that quizzes are used in this course, the syllabus does not clearly state how, when and for which purpose these quizzes are used. Further explanations in this regard would be very helpful so as to pinpointing better targeted suggestions.

All these amendments should involve the formulation of more practical assignments additional to the one suggested in the syllabus. We propose that the suggested practical assignment in the syllabus becomes a "final practical project" that builds on all previous practical assignments that should be added to the different practical sessions. Both individual assignments and group assignments should be offered to the students.

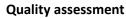
Quality criteria 2: Total number of credit units in the course is correct and appropriate

#### Evaluation

The total number of credits awarded is too high if a workload of 56 hours is estimated.

#### • Strategies for improvement

Since 1 ECTS is equal to circa 28 hours, it becomes indispensable either to reduce the number of ECTS awarded to 2 or increase the workload to approximately 120 hours. Of the two options suggested, an increase in the workload for students appears the most desirable. The reason for that is the need for workload increases in the form of practice-oriented activities that complement and enable to reduce the excessively high ratio of hours devoted to lectures.





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# 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 second semester of MA studies in Disaster Studies is considered appropriate. The course constitutes a further step in the learning of crucial concepts and methodologies for the management of disasters with respect to those contents (it is assumed) offered during the first semester. It goes deep into a promising method (remote sensing and GIS) for disaster management, which should only have been briefly introduced during the introductory courses in the first semester and the knowledge on which becomes a basis for further specialised courses in the following semesters.

• Strategies for improvement

None. Everything is deemed correct.

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

## • Evaluation

The certain bias observed towards the provision of theoretical contents appears to be also reflected in the grading system, which makes it not appropriate to support transferable skills in practice. Eighty per cent of the grade is exclusively derived through the successful completion of a mind-term and a final written examination. The usage of mostly only exams is not a suitable way to evaluate the skills gained during the course. The capability of students to work on real cases in practice can be hardly evaluated. The syllabus should indicate, however, the type of questions that students will have to answer during the exams (e.g. theoretical questions, short exercises with the software, etc.). This would enable us to provide a more accurate assessment.

#### • Strategies for improvement

Strategies for improvement are pointed out under "quality criteria 1". They concern the provision of a wider range of practical assignments. Most part of the grade should be calculated through the evaluation of the quality of practical assignments. Practical assignments should include individual and group tasks involving the compilation and processing with GIS of remote sensing data, as well as work on the management framework, strategies, etc. in India. The final exam should also be practically oriented (i.e. it should primarily involve conducting several tasks with the software). The grade should be obtained through the evaluation of: 1) the maps, pieces of text and oral presentations produced/made in the frame of the proposed practical assignments; 2) the degree of participation in in-class discussions and quizzes; and 3) the quality of the answers to the final exam.

Very relevant is also the location of the practical assignments and theoretical sessions in the timeline. Opposite to what it appears to be suggested in the syllabus, we would strongly recommend mixing theoretical sessions and practical assignments in the timeline: i.e. practical sessions on each of the subjects addressed should be located right after the corresponding theoretical session. This might potentially improve the skills transferability. One of the reasons for that is the possibility offered to students to better interrelate the theoretical knowledge gained with its practical implementation. The limited students' memory further supports using this approach.

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 disaster management in order to be able to follow the course contents smoothly. Additionally, it is highly recommended that the lecture materials are not limited to a listing of recommended publications, some scientific papers and the lecture slides.

• Strategies for improvement

The introductory character of the course to the usage of GIS and remote sensing explains the establishment of no required previous knowledge in the field of GIS as a prerequisite for attending the course. Courses providing basic knowledge about disaster management should, however, be included in the list of prerequisites. This might encompass the course "Risk, Vulnerability and Resilience: Concepts and Understanding", which has been newly created under the frame of the project SUNRAISE.

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. Our first suggestion is to make videos of the theoretical sessions and upload them





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on the e-learning platform, so that students can have access to these materials anytime and review any parts that they may not have clearly understood. Our second suggestion is the creation of an online chat and additional practical exercises (additional to those set as compulsory for successfully completing the course). The first (online chat) might allow a more fluent and easy interaction among students and between students and professors, in order to solve the doubts encountered, etc. The second (additional practical exercises) might enable all interested students to further learn on the topic and 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-oriented components are sufficient to cater the learning outcomes and knowledge development, but this is not the case with practice-oriented components. The practice-oriented components should be further developed in the course planning and evaluation process to value the student work.

• Strategies for improvement

The strategies suggested are pointed out under "quality criteria 1 and 4".



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

# New course 3: "Ecosystem Approach for Disaster Risk Reduction"

### QUALITY ASSESSMENT

Quality criteria 1: Number of credit units for lectures, practical sessions and self-learning are appropriate to the contents

#### • Evaluation

Credit units for lectures, practical sessions and self-learning are furnished. Most of the credit units are allocated to lectures, whereas units for practical sessions and self-learning remain fairly residual. The introductory character of the course to the topic of ecosystem approaches in disaster reduction, makes the suggested share of credit units for lectures, practical sessions and self-learning appropriate to the contents. However, this is only the case if practice-oriented courses are offered during the master's programme on the topic. We assume that this is the case, but this should be further clarified in the syllabus. If this was not the case, the practice-oriented character of the contents of the course (management of disasters using ecological approaches) and the need to train professionals able to not only understand the theory but, most importantly, deal with real situations in practice, would require a change in the underlying structure of the course (in the way the contents are provided). More endeavour would need to be put on the provision of practical skills, so that students do not only know e.g. the ecosystem approaches that are available but gain some basic notions on how to put them into place in practice (see suggestions for improvement below). This becomes critical in a context of climate change, under which disasters might be more intense and frequent and new approaches (in the direction of ecosystem approaches) will be needed in order to better tackle them. Regardless of whether practical courses on the topic exist or not, theory and practice should be further integrated and interrelated in the course section.

#### • Strategies for improvement

We would basically suggest two lines of improvement: 1) the first line concerns increases in practice-oriented elements; and 2) the second line concerns increases in the dynamism/interactive character of the course. Regarding the first line (i.e. increases in practice-oriented elements), the conversion of (parts of) some of the lectures into practical sessions should be considered. This is particularly relevant for all those sessions addressing approaches and tools for disaster management, including the ecological approaches. Practical sessions should involve the provision of practical work to students in the form of small case studies, through which students have to make some calculations, work with a particular software, make some small designs, etc. Especially relevant when it comes to e.g. ecological approaches and the different approaches available to manage disasters (e.g. engineered solutions, etc.), is the engagement in the course of local stakeholders involved in disaster management. They could provide very enriching discussions on how the different approaches work in practice and the opportunities and hurdles that they have found. Conjointly working on the selected cases with them can, moreover, substantially increase the practical experience acquired by students. This will all help to train professionals able to better deal with real cases in practice. Regarding the second line (i.e. increases in the dynamism/interactive character of the course), the usage of in-class discussions, guizzes, etc. is recommended, rather than just presentations by the lecturer. Indeed, the latter (presentations) should be kept to the minimum possible. This will contribute to make the course more attractive for students, potentially increase their interest in the subject, as well as (in the case of in-class discussions) give the students a chance to express themselves and better integrate their already existent knowledge on the topic with the new contents taught. Although the syllabus states that quizzes and "interactive and self-reflective methods of teaching and learning" are used, the extent to which this is done is not clear through the provided descriptions. It is assumed that improvements are needed in this area, but further clarifications should be furnished in the syllabus, so that we can provide better targeted suggestions.

All these amendments should involve the formulation of more practical assignments additional to the one suggested in the syllabus. We propose that the suggested practical assignment in the syllabus becomes a "final practical project"





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that builds on all previous practical assignments. Both individual assignments and group assignments should be offered to the students.

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

## Evaluation

The total number of credits awarded is too high if a workload of 56 hours is estimated.

### • Strategies for improvement

Since 1 ECTS is equal to circa 28 hours, either the number of ECTS awarded should be reduced to 2 or the workload increased to approximately 120 hours. We would particularly recommend increasing the workload for students, if possible. The reason for that is the need for workload increases in the form of practice-oriented activities that complement and enable to reduce the excessively high ratio of hours devoted to lectures.

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 third semester of MA studies in Disaster Studies does not seem optimal. The subject area on which the course is focused is a fairly general area. Thus, it is relevant to learn and gain knowledge on it before going more in-depth into other aspects in the following semesters.

• Strategies for improvement

The course should be scheduled at an earlier point of the master's programme (in the second semester). The course provides basic knowledge on disaster risk reduction, which might be pivotal for students in order to better follow the contents of the following courses in the master's degree (assumingly more specialised courses in the third and fourth semester).

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

### Evaluation

Mostly only exams are used in order to mark the students. Eighty percent of the grade is derived through the successful completion of a mid-term and a final written examination. This is a reasonable way to proceed in an introductory theoretical course. However, it is argued that this approach is not suitable to support transferable skills. The skills gained regarding the implementation of the learned concepts in practice can be hardly evaluated through the mostly exclusive usage of exams. This is not a problem if the course is complemented by other practice-oriented courses during the master's programme and these complementary course utilise another evaluation approach (more practice-oriented). If this was not the case (i.e. no practical courses on the topic exist), the evaluation system used in the course should be rethought (see suggestions below).

## • Strategies for improvement

Strategies for improvement are highlighted under "quality criteria 1", where the provision of more practical assignments is advised. Practical assignments should be in the form of teamwork and individual assignments and might embrace written tasks, work with a particular software, field work, oral presentations, etc. Most part of the grade should be derived through the evaluation of their quality. The quality of the answers to the questions of a final examination can be added to that, but this should not represent a very significant part of the grade.

As suggested in other cases, as important as the provision of more practical assignments is their location and that of the corresponding practical sessions in the timeline. Theoretical and practical sessions should be mixed in the timeline, so that practical sessions on each of the subjects addressed is located right after the corresponding theoretical session. This might potentially improve the skills transferability. One of the reasons for that is the possibility offered to students to better interrelate the theoretical knowledge gained with its practical implementation. The limited students' memory further supports using this approach.

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 set up for attending this course, which has not been done. Previous knowledge in the fields of ecology and disaster management appears to be needed in order to be able to follow the contents of the course smoothly. This should be reflected in the provided list of prerequisite courses. The fact that there is a need to revisit some basic concepts in one of the sessions (concepts of hazard, risk, etc.) further illustrates the need to define





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prerequisites for attendance. Additionally, it is highly recommended that the lecture materials are not limited to a listing of recommended publications and some scientific papers.

• Strategies for improvement

Courses offering basic knowledge about disaster management and ecology should be included in the list of prerequisites for attendance. In the field of disaster management, this should encompass the course "Risk, Vulnerability and Resilience: Concepts and Understanding", which has been newly created under the framework of the SUNRAISE project.

Since we do not have access to the e-learning materials, we are not sure whether the suggestions that we include on this matter are or not of relevance. It may be the case that some of the suggestions made have already been adopted. As with other courses, first of all, we would strongly recommend providing the slides and videos of each of the theoretical sessions in the e-learning platform. The objective should be that students can always have access to them, so that they can revisit any concepts or parts that they might have not clearly understood and as a way to foster self-working at home. Second, the provision of an online chat and additional online practical exercises should be considered. The first (online chat) might allow a more fluent and easy interaction among students and between students and professors, in order to solve the doubts encountered, etc. The second (additional practical exercises) might enable all interested students to further learn on the topic and 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-oriented components are sufficient to cater the learning outcomes and knowledge development, but this is not the case with practice-oriented components. The practice-oriented components should be further developed in the course planning and evaluation process to value the student work. This is especially required if the course contents are not further worked in other more practice-oriented courses during the master's programme.

• Strategies for improvement

The strategies suggested are pointed out under "quality criteria 1 and 4".





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

# New course 4: "Himalayan Ecology"

### QUALITY ASSESSMENT

Quality criteria 1: Number of credit units for lectures, practical sessions and self-learning are appropriate to the contents

#### Evaluation

Credit units are mostly allocated to lectures, while units for practical sessions and self-learning remain residual. Although this might be indicative of an inappropriate assignment of credit units to practical sessions and selflearning, it might be justified by the introductory character of the course to the Himalayan environment and ecology. We assume that the contents of the course are further addressed in other more practice-oriented courses during the remaining semesters of the master's programme. This should, however, be indicated in the syllabus. If this was not the case (i.e. if the topic was not addressed from a practical perspective in other courses), further endeavour would be needed for the provision of practical skills during the course (see the suggestions below). This is of high relevance in order to train students not only knowledgeable of the concepts and approaches available, but, most importantly, able to deal with real situations in practice and adopt the concepts/approaches learned. The focus of the course on the Himalayas (close to the place of instruction) further supports the need for the provision of practiceoriented sessions. Regardless of whether practical courses on the topic exist or not, theory and practice should, however, be further integrated and interrelated in the course process. This also encompasses the integration of selflearning activities, which mostly remain absent (see suggestions below).

#### • Strategies for improvement

The suggested strategies for improvement are twofold. They involve increases in: 1) on the one side, practiceoriented elements; and 2) on the other side, the dynamism and self-learning components of the course. First of all, it would be desirable to convert at least some parts of some lectures into practical sessions. Through practical sessions, students might need to deal with the socio-ecological reality, issues, etc. occurring in the Himalayas while working on small case studies. This might be the case of e.g. conservation and development issues arising around the topic of tourism in a certain locality. Rather than receiving this information straight from the professor, giving the students the chance to explore and work each of the subjects from a practical perspective, after a short theoretical introduction of each of them, would make the course a much more enriching experience and ensure the training of professionals better prepared for addressing this very relevant subject during their professional life. Especially enriching would be the engagement of local stakeholders (professionals, residents, etc.) in some of the practical sessions. The sound knowledge of these stakeholders about the characteristics of the Himalayas and the issues that the area faces, can give rise to very enriching discussions and increase the practical experience of students, especially if stakeholders are involved in some of the practical tasks.

Second, the usage of in-class discussions, games, quizzes, etc. during the theoretical sessions should be considered. They would bring dynamism and make the contents more attractive to students. Additionally, in-class discussions would give students a chance to express themselves and better integrate their already existent knowledge on the topic with the new contents taught. Some short readings and quizzes might also be provided so that students can continuously self-evaluate their level of understanding of the contents worked. Although the syllabus appears to indicate that some of these methods are already used (e.g. "the course will make most of interactive and self-reflective methods of teaching and learning"), it becomes unclear the extent to which they are employed, as well as the purpose for which and the way they are utilised. Further clarifications should be rendered in the syllabus in this regard, so as to being able to offer more precise suggestions for improvement.

All these amendments should involve the formulation of practical assignments. According to the syllabus, almost no assignment is planned for this course (or at least is not used for evaluation). We propose the creation of small practical assignments (one for each of the subject areas covered in the course) and a "final practical project" that builds on all previous practical assignments. Individual and group assignments should be offered to the students.





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

### Evaluation

The total number of credits awarded is too high if a workload of 30 hours is estimated.

## • Strategies for improvement

Given the fact that 1 ECTS is equal to circa 28 hours, it becomes paramount to either reduce the number of ECTS awarded to 1 or increase the workload for students to approximately 60 hours. Especially advisable is to increase the workload for students, if possible. This is due to the need for workload increases in the form of practice-oriented activities that complement and enable to reduce the excessively high ratio of hours devoted to lectures.

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 second semester of M.Phil. studies in Environmental Sciences is deemed appropriate. The course is thought as an introduction to the Himalayan environment and ecology. It is assumed that it builds on courses delivering basic knowledge about ecology in the first semester of the master's degree (e.g. course "Ecosystem Processes" revised under the frame of the project SUNRAISE). Its positioning in the second semester makes it possible that it constitutes the basis for more specialised courses on the topic during the third and fourth semesters.

## Strategies for improvement

None. Everything is deemed correct.

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

### • Evaluation

Only or mostly only exams are used to obtain the grade of students. Eighty percent of the grade is derived through the successful completion of a mid-term and a final written examination. This is a reasonable way to proceed when it comes to the evaluation of the understanding of theoretical concepts and approaches gained by students when attending an introductory theoretical course. However, it becomes inappropriate to support transferable skills. The capability of students of putting the concepts they have learned into practice can be hardly evaluated through the mostly exclusive usage of exams. This becomes especially critical if the course is not complemented by other practice-oriented courses during the master's programme (see suggestions below).

## • Strategies for improvement

Strategies for improvement are pointed out under "quality criteria 1". They basically concern the definition of practical assignments, which remain almost absent in the course programme and are not used for evaluation purposes. Practical assignments should be in the form of group work and individuals work, and involve short written assignments, oral presentations, interviews, etc. They might include the assignments listed in the syllabus, whose objectives, positioning, etc. remain unclear through the provided descriptions and, thus, should be further cleared up. Most part of the grade should be derived through the assessment of the quality of practical assignments. A part of the grade should also come from the degree of participation in in-class discussions, quizzes, etc. The successful completion of a final written examination might also be taken into account. The latter (successful completion of a final written examination) should, however, not represent a very significant part of the grade.

Of high relevance is also the location of practical assignments in the timeline. Theoretical sessions and practical assignments should be mixed in the timeline. In no case should all practical assignments be located at the end of the course. Rather, each practical assignment should be positioned right after the theoretical session that is relevant to it. Some of the reasons for that are the limited students' memory and the possibility that this approach opens to students to better interrelate the theoretical knowledge gained with its practical implementation. This might potentially improve the skills transferability.

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

On the one hand, prerequisites should be defined for attending this course, which has not been done. Basic knowledge in the field of ecology (including the interaction of humans with the remaining nature) appears to be needed so as to following the contents of the course smoothly. This should be reflected in the list of prerequisite





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courses for attendance. On the other hand, since we do not have access to the lecture materials, it is not possible for us to provide an accurate assessment on them.

• Strategies for improvement

Prerequisite courses should include any course held during the first semester of the M.Phil. studies in Environmental Sciences furnishing basic knowledge in the field of ecology. This might encompass the two courses revised under the frame of the project SUNRAISE, i.e. the course "Ecosystem Processes" and the course "Man & Tropical Forest Ecosystem Function".

Regarding the learning materials, our suggestions are similar to those made while evaluating the other courses produced by partner P12 (Jawaharlal Nehru University). Although we do not have access to the e-learning materials, we hope that these comments can be useful in order to further improve the materials created. First of all, we would strongly recommend uploading the slides and videos of the theoretical sessions on the e-learning platform. This way, students would be able to access these materials anytime and revise any concepts and/or parts of the sessions that might not have been clearly understood. Additionally, self-working at home would be fostered. Second, the creation of an online chat would be advisable, in order to promote the discussion among students and between the students and the professor. Students with high interest on the topic might also be willing to interactively learn more on it, the reason why the provision of additional interactive exercises on the online platform might be an attractive idea. A list of literature for further reading should also be offered.

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

### Evaluation

Theory-oriented components are sufficient to cater the learning outcomes and knowledge development, but this is not the case with practice-oriented components. The practice-oriented components should be further developed in the course planning and evaluation process to value the student work. This is especially required if the course contents are not further worked in other more practice-oriented courses during the master's programme.

• Strategies for improvement

The strategies suggested are pointed out under "quality criteria 1 and 4".





## COURSES REVISED AND NEWLY CREATED BY PARTNER P12 (JAWAHARLAL NEHRU UNIVERSITY)

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

# **Revised course 1: "Ecosystem Processes"**

### QUALITY ASSESSMENT

Quality criteria 1: Number of credit units for lectures, practical sessions and self-learning are appropriate to the contents

#### Evaluation

Credit units are almost only allocated to lectures. The number of units devoted to practical sessions and self-learning activities is very limited. Even if this is not ideal, this can be justified by the introductory character of the course to ecosystem processes and the development of its practical side in other courses. The latter (i.e. whether the topic is addressed or not from a practical perspective in other courses) remains, however, unclear through the provided descriptions in the syllabus. This should be clearly stated, which is not the case. If no practical courses on the subject exist, the ratio of credit units for lectures, practical sessions and self-learning of the course would be considered inappropriate and strategies should be adopted to increase the share of units for practical sessions and self-learning (see suggestions below). This is especially relevant so as to training professionals not only knowledgeable of the key concepts and approaches in the field, but, most importantly, able to put these concepts/approaches in practice in a real case. The focus on approaches/measures for ecosystem/landscape assessment particularly asks for a practice-oriented perspective. In any case, regardless of whether practical courses on the topic exist or not, it is detected that theory and practice should be further integrated and interrelated in the course process. This also comprises the integration of self-learning activities, which appear to remain very limited (see suggestions below).

#### • Strategies for improvement

The suggested strategies for improvement involve increases in practice-oriented elements, dynamism and the selflearning components of the course. First of all, we would strongly recommend to convert part of some of the lectures into practical sessions. This might embrace those parts dedicated to: 1) the exploration of methodologies for the assessment of certain parameters, or 2) management measures or programmes constituting best management practices in the field of ecosystem management. Examples in the syllabus are the course sections about e.g. ecological restoration or the measurement of primary production. Practical sessions should be conceived as small case studies, when possible. Local professionals might be engaged in some of them, not least in those addressing ecological restoration and programmes on ecosystem processes. The practical experience of these stakeholders might give rise to very enriching discussions and widen the practical perspective of students, as professionals are knowledgeable of the opportunities and hurdles that can be faced in practice.

Second, the usage of in-class discussions, quizzes, games, etc. during the theoretical sessions should be considered, as a way to provide further dynamism to the course and make its contents more attractive for students. In the case of in-class discussions, they additionally give students a chance to express themselves and better integrate their already existent knowledge on the topic with the new contents taught. Providing short readings and quizzes for continuous self-evaluation after each lecture/section of the course also becomes advisable. Students would be given a chance to self-assess the level of understanding of the contents and identify those areas on which they should concentrate more intensively. Although it appears that some of these methods are already used during the course, the extent to which this is true and the purpose for which these methods are used remains unclear through the descriptions in the syllabus. The syllabus only states that quizzes and "interactive and self-reflective methods of teaching and learning" are utilised without any additional specifications. This should be clarified, so that we are able to pinpoint better targeted strategies for improvement.

All these amendments should involve the formulation of more practical assignments. According to the syllabus, almost no assignment is planned for this course or they are not considered in the evaluation of students. We propose the creation of small practical assignments (one for each of the subject areas covered in the course) and a "final practical project" that builds on all previous practical assignments. Both individual assignments and group assignments should be offered to the students.





## COURSES REVISED AND NEWLY CREATED BY PARTNER P12 (JAWAHARLAL NEHRU UNIVERSITY)

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

## Evaluation

The total number of credits awarded is too high if a workload of 30 hours is estimated.

## • Strategies for improvement

One ECTS equates to approximately 28 hours. Thus, there is a need to either reduce the number of ECTS awarded to 1 or increase the workload for students to circa 60 hours. We would particularly advice to increase the workload for students, if possible. This is due to the low number of ECTS units devoted to practice-oriented activities and the accordingly too high ratio allocated to lectures.

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 first semester of M.Phil. studies in Environmental Sciences is considered correct. The course constitutes an introduction to the topic of ecosystem processes. It provides basic knowledge that is further developed in other courses taking place in the following semesters, such as the course "Himalayan Ecology", newly developed under the frame of the project SUNRAISE. Its positioning in the first semester of the master's programme becomes, thus, essential.

## • Strategies for improvement

## None. Everything is deemed correct.

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

## • Evaluation

The grade of students is mostly only determined through the use of written exams. Eighty percent of the grade is obtained through the quality of the answers provided to a mid-term and a final written examination. The usage of this approach is reasonable if only the level of understanding of theoretical concepts and approaches wants to be evaluated. Nevertheless, it becomes inappropriate to support transferable skills. The ability of students to use the learnt concepts/approaches for the resolution of real problems/situations in practice can be hardly assessed by using only exams. Therefore, the approach used becomes undesirable, not least if no other courses addressing the same topic from a practical perspective exist in the master's programme (see the suggestions for improvement below), which remains unclear.

## • Strategies for improvement

Suggestions for improvement are pinpointed under "quality criteria 1", where the creation of practical assignments is advised. Practical assignments should be used for the evaluation of students. This might include the assignment that you suggest in the syllabus, the objective, positioning, etc. of which remain unclear and should be further cleared up in the syllabus. Indeed, most part of the grade should be obtained through the assessment of the quality of practical assignments. Practical assignments should include individual tasks but also teamwork, and involve short written assignments, oral presentations, field work, mathematical exercises, etc. They should be conceived as case studies. An example might be the design of measures for the ecological restoration of a particular area. In addition, the active participation in quizzes, in-class discussions, etc. should be taken into account for the computation of the attributed grade. While a final examination might also be undertaken, its weight in the final grade should not be significant.

As pointed out while assessing other courses, not only the provision of practical assignments but also their positioning in the timeline is of high relevance. Ideally, theoretical and practical sessions (and the corresponding practical assignments) should be mixed in the timeline, in such a way that each practical session is positioned right after the theoretical session of relevance. Students' memory is limited. Thus, using this approach might enable them to better interrelate the theoretical concepts/approaches learnt with their practical implementation. Ultimately, this might potentially improve the skills transferability.

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

No prerequisites have been defined for attending this course. This is explained by its introductory character, which also justifies its location in the first semester of the master's degree. It is assumed that the prerequisites that have





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to be fulfilled to study the master's programme apply. Therefore, it is resolved that the absence of specific prerequisites for attendance for the course is reasonable and suitable. Regarding the lecture materials, no precise evaluation can be made from our side, given the fact that we do not have access to them.

Strategies for improvement

Since we have no access to the e-learning materials, we are not sure whether the suggestions that we make here can be relevant. It may be the case that some of the suggestions pointed out have already been adopted. First of all, we would strongly recommend making the slides and videos of the theoretical sessions available to students on the e-learning platform. This would make it possible that students have access to them anytime and can revise any parts or concepts that they might have not clearly understood. It might also be a way to encourage self-working at home. Second, it is very advisable to create an online chat, in order to foster a better communication and a space for discussion among students and between the students and the professor. A list of recommended literature, some additional pieces of reading or additional voluntary practical exercises might also be furnished. They would be targeted at all those students really interested on the topic and that are willing to learn more. The inclusion of additional interactive exercises might 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-oriented components are sufficient to cater the learning outcomes and knowledge development, but this is not the case with practice-oriented components. The practice-oriented components should be further developed in the course planning and evaluation process to value the student work. This is especially required if the course contents are not further worked in other more practice-oriented courses during the master's programme.

• Strategies for improvement

The strategies suggested are pointed out under "quality criteria 1 and 4".



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

# **Revised course 2: "Man & Tropical Forest Ecosystem Function"**

## QUALITY ASSESSMENT

Quality criteria 1: Number of credit units for lectures, practical sessions and self-learning are appropriate to the contents

#### • Evaluation

The largest part of the credit units of the course is attributes to lectures, whereas the number of units for practical sessions and self-learning appears to remain residual. This is a reasonable approach for theoretical introductory courses like the one assessed here, the contents taught in which are worked from a practical perspective in other courses, as it is assumed to be the case. This (i.e. whether the topic is addressed or not from a practical perspective in other courses) remains, however, unclear through the descriptions provided in the syllabus and should be cleared up in order to be able to provide a more accurate assessment. If no additional practice-oriented courses on the topic are offered during the master's degree, the share of credit units for lectures, practical sessions and self-learning would be considered inappropriate and clear efforts should be undertaken in order to substantially increase the number of units allocated to practical sessions and self-learning (see suggestions for improvement below). Improvements in this direction are, indeed, advisable, even if practical courses on the topic do exist. The provision of practical skills is of high importance in order to train professionals not only knowledgeable of the theoretical concepts/approaches available, but, most importantly, able to use these concepts/approaches for the resolution of real problems/situations in practice and work with different tools and in various environments.

## • Strategies for improvement

As with other courses, the suggested strategies for improvement are twofold and imply increases in: 1) practiceoriented elements; and 2) dynamism and the self-learning components of the course. First of all, it becomes very advisable to convert some parts of some lectures into practical sessions. Potential parts to be converted are, for example, those related to: 1) rural ecosystem rehabilitation, 2) people's perception of environment, and 3) nutrient conservation strategies, among others. Practical sessions should be conceived as real case studies, when possible. Local professionals might be more or less actively involved in some of them. This might give rise to very enriching discussions and open up a more precise practical perspective among students, given the knowledge that local professionals have about the strategies, etc. being followed in the country/region/locality and the opportunities and hurdles that appear in practice.

Second, the use of in-class discussions, quizzes, games, etc. during the sessions would be very advisable, as a tool to provide dynamism to the course and make its contents more attractive to students. In-class discussions, in particular, can be a very good tool to give students a chance to express themselves and better integrate their already existent knowledge on the topic with the new contents taught. Short readings and quizzes after each of the lectures might also be furnished. This would offer students the opportunity to continuously self-evaluate the level of comprehension that they have gained of the different concepts/approaches worked and let them easily identify in which areas they should put more efforts (as they have not clearly understood the corresponding contents). It should be mentioned that it seems that some of these methods are already used in the course. Sentences like "the course will make most of interactive and self-reflective methods of teaching and learning" or the inclusion of quizzes as one of the evaluation methods seem to indicate this. However, the extent and purpose for which these methods are used remain dubious and should be further clarified in the syllabus. This would enable to provide better targeted suggestions for improvement.

All these amendments should involve the formulation of more practical assignments. According to the syllabus, almost no assignment is planned for this course or they are not considered in the evaluation of students. We propose the creation of small practical assignments (one for each of the subject areas covered in the course) and a "final practical project" that builds on all previous practical assignments. Both individual assignments and group assignments should be offered to the students.





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

### Evaluation

The total number of credits awarded is too high if a workload of 30 hours is estimated.

## Strategies for improvement

Since 1 ECTS equate to circa 28 hours, there is a need to either decrease the number of ECTS awarded to 1 or increase the workload for students to approximately 60 hours. We would especially recommend increasing the workload for students, if possible. The reason for that is the persisting need for increases in ECTS units devoted to practice-oriented activities, so as to ensuring an appropriate ratio among lectures, practical sessions and self-learning components.

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 first semester of the curricula (M.Phil. studies in Environmental Sciences) does not appear to be optimal. The introductory character of the course to ecosystem processes in forests and human interactions with these ecosystems asks for its positioning in one of the first semesters of the master's programme. However, general knowledge on ecosystems and ecosystem processes should be gained by students in previous courses before attending the course, the reason why the first semester seems not to be the most optimal option for this course.

• Strategies for improvement

We would suggest scheduling this course in the second semester of the master's degree. By then, students will have already acquired basic knowledge about ecosystems, required to easily follow the contents of the course. This would be thanks to the courses scheduled in the first semester, such as the course "Ecosystem Processes", revised under the frame of the SUNRAISE project. Moreover, its positioning in the second semester would make it possible that the course constitutes the basis for other more specialised courses offered in the third and fourth semesters. Quality criteria 4: Tests are suitable and appropriate to support transferable skills

• Evaluation

Mostly only exams are used for the derivation of the grade that students get. Eighty percent of the grade is obtained through the evaluation of the quality of the answers provided to a mid-term and a final written examination. Using this approach is reasonable in a theoretical introductory course, as it is the case here. However, it does not result appropriate to support transferable skills. Thus, it should only be utilised if practical courses do exist in the master's programme dealing with the topic of the course and using a completely different evaluation system (more practice-oriented). If this was not the case, the selected evaluation system should be rethought (see the suggested strategies for improvement below). The level of understanding of theoretical concepts and approaches can be evaluated by using exams, but it becomes an unsuitable method for the evaluation of the capability of students to use the learnt concepts/approaches for the resolution of real problems/situations in practice.

• Strategies for improvement

You can find strategies for improvement under "quality criteria 1". They concern the provision of practical assignments. Most part of the grade should be inferred through the evaluation of the quality of practical assignments, whereas exams should only be used for the derivation of a small portion of it or not used at all. Practical assignments should comprise both individuals work and group work and involve short written tasks, oral presentations, surveys/interviews, field work, short mathematical exercises, etc. They should be conceived as case studies. For example, students might have to survey the perception of the environment of residents/professionals and compare the results obtained with those shown in selected scientific papers. Another possible practical assignment might be: students need to suggest strategies for rural ecosystem rehabilitation in a particular locality; among many other possibilities. The assignment that you suggest in the syllabus might also be included, the objective, positioning, etc. of which remain unclear and should be further cleared up in the syllabus. The active participation in in-class discussions, quizzes, games, etc. should also be taken into consideration when calculating the grade that students get.

Of high relevant is also the location of all evaluation activities in the timeline. Practical assignments and self-learning components should be positioned right after the corresponding theoretical session. It is argued that this would enable substantial improvements in skills transferability. Students' memory is limited and, as such, students will be





## COURSES REVISED AND NEWLY CREATED BY PARTNER P12 (JAWAHARLAL NEHRU UNIVERSITY)

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able to better interrelate the theoretical concepts/approaches learnt with their practical implementation, if such an approach is followed.

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 have not been defined for attending this course. The introductory character of the course to the topic of forest ecosystems together with its initial positioning in the first semester of the master's programme seem to explain this fact. Nevertheless, the apparent need to have previous knowledge in ecosystems before attending the course asks for the definition of prerequisite courses offering some basic insights in the area. This is especially required if the course is finally positioned in the second semester of the master's programme, as we suggest. In this case, not only the prerequisites to take part in the master apply, but specific prerequisites for attendance for the course should also be set up. Regarding the lecture materials, no precise assessment can be made from our side, because we do not have access to them.

• Strategies for improvement

Prerequisite courses should encompass any course taught during the first semester of the M.Phil. studies in Environmental Sciences addressing the area of ecosystem processes, functions, etc. This should comprise the course "Ecosystem Processes", revised under the frame of the SUNRAISE project. This would avert having to address basic concepts (at least not in an extensive way) that are actually addressed in other more introductory courses. An example of that is the concept of "ecosystem", which is planned to be introduced in this course, but also e.g. in the course "Ecosystem Processes".

The fact that we do not have access to the e-learning materials makes it harder to render specific strategies for improvement. It may be the case that some of our suggestions have, actually, already been put in practice. First of all, we would strongly recommend giving access to students to the slides and videos of the theoretical sessions on the e-learning platform. Students should be able to take a look at these materials anytime, so as to revisiting the concepts and approaches worked as many times as necessary. This can be particularly useful for the revision of concepts/parts of the lectures not clearly understood at first glance, as well as to support self-working at home. Second, the creation of an online chat would be really advisable. This would constitute an opportunity to foster a more fluent communication among students and between students and the professor, not least when a doubt on a certain topic arises, etc. The provision of a list and some pieces for further reading and some additional practical interactive exercises should also be considered. This would be especially attractive for all those students really interested in the topic and willing to learn more.

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

Evaluation

Theory-oriented components are sufficient to cater the learning outcomes and knowledge development, but this is not the case with practice-oriented components. The practice-oriented components should be further developed in the course planning and evaluation process to value the student work. This is especially required if the course contents are not further worked in other more practice-oriented courses during the master's programme.

• Strategies for improvement

The strategies suggested are pointed out under "quality criteria 1 and 4".

## Further comments:

You should consider changing the title of the course from "Man & Tropical Forest Ecosystem Function" to e.g. "People & Tropical Forest Ecosystem Function". The term "man" appears inappropriate.