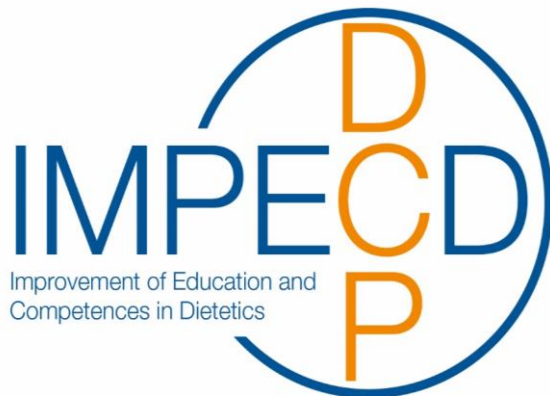




Erasmus+



WORKPACKAGE 6

SYLLABUS

FINAL REPORT, AUGUST 2018

Strategic Partnership IMPECD –
Improvement of Education and
Competences in Dietetics www.impecd.eu

Project-Nr. 2015-1-AT01-KA203-005039
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Work package 6- SYLLABUS

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All contributors held regular internal meetings during the project (minutes of these meetings are available on Trello)

Objectives

In this work package the didactic concept and outline for our partner universities and the other HEIs were produced. Within this syllabus the methods for the implementation of the production of clinical cases (O3), the use of the Massive Open Online Course (MOOC) (O1), evaluation tools (O5) and pedagogical training materials (O4) are presented for our partner and other HEIs departments of dietetics.

Furthermore, the use of the finalized cases within the curriculum was presented in the syllabus. E.g. role models and new teaching methods such as the Inverted Classroom (Inverted Classroom is a blended learning approach that moves lectures and content into an online learning environment like a MOOC to prepare for succeeding-class activities). The syllabus is distributed via the IMPECD-platform accessible for current partner and future other HEIs. The syllabus is a dynamic document: our experiences and insights after the first run of the MOOC will be implemented and the syllabus will then be evaluated by addressing the users.

Description of work (broken down into activities)

- O6/A1 Analysis for developing a syllabus (months 15-19)
- O6/A2 Development of the syllabus (months 19-34)
- O6/A3 Evaluation of syllabus and “intention to use” (months 28-32)
- O6/A4 Dissemination, promotion and reporting of the syllabus (months 32-34) O5-A1 Analysis for the development of evaluative tools

Milestones: are displayed with planned date (application) and end date/ status

No.	Milestone	planned	status
6a	Results of curricula reviewed are available	3/2017	finalized
6b	Finalized syllabus available	10/2017	finalized
6c	Syllabus evaluation results available	4/2018	finalized
8	Syllabus available in the IMPECD-MOOC	6/2018	finalized

Table 1/WP06: Overview of Milestones and intermediate steps in Work package 6.

All initially planned deliverables and milestones for the time of reporting have been reached.

O6/6a Results of curricula reviewed are available

The work package 6 started with an initial analysis of the partners' curricula to implement the MOOC. A first schedule was made after ISP1 by mapping curriculum options in the consortium. As the partners' curricula are very diverse, this step required complex thinking skills.

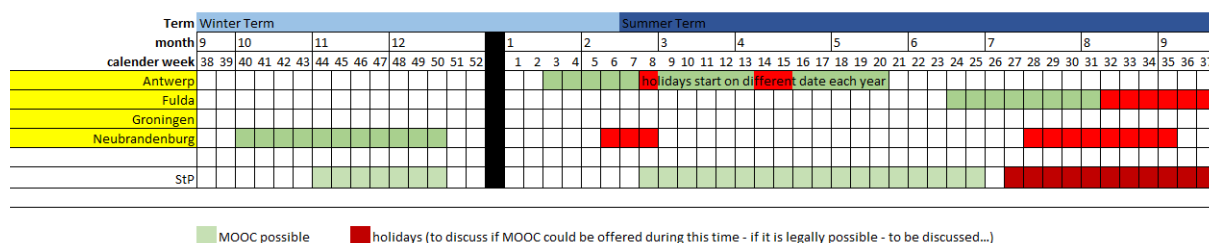


Figure 1/WP06 : first collection (mapping) of timeframes possible for the MOOC

The schedule was finetuned and agreed upon after the transnational meeting in Groningen. It was defined that the MOOC will start in summer/spring term 2019 and the current IMPECD partners will follow the schedule below.

Implementation of the Online Course in the Curriculum of five HEI's

	Start of the Online Course: Summer/Spring Term																		Winter/Autumn Term																																									
month	February					March					April					May					June					July					August					September					October					November					December					January				
calendar week	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4								
Open Online Course																																																												
Details:		Start Block 1/2																		Start Block 2/2																																								
	1) Preparation					2) Grading					3) Grading					4) Revision					1) Preparation					2) Grading					3) Grading					4) Revision																								
Dietetic Care Process (all partners)																																																												
Gestational Diabetes & Nephropathy - Antwerp																																																												
Cardiovascular Disease & Type 2 Diabetes - St. Pölten																																																												
Gastrointestinal Symptoms - Fulda																																																												
Obesity & Bariatric Surgery - Neubrandenburg																																																												
Colon Cancer & Intensive Care - Groningen																																																												

Figure 2/WP06: schedule for running the MOOC among the five HEIs of the consortium

We experienced challenges regarding the implementation of the MOOC in the curricula. As a result, the team decided to focus on an employment process for the first year after the MOOC is part of the curricula. During the transnational meeting in Groningen, each partner answered the following questions within their dietetics program team:

- Discuss how you will use the MOOC in your program in the academic year 2018-2019 (and further)
- For each case: Is the time schedule (see above) still valid, who is participating and coordinating?
- How to overcome potential difficulties/problems/barriers (if any)?

The HEIs confirmed to use the MOOC as follows (further details can be read in the respective minutes from the transnational meeting in Groningen):

ANTWERP

- cohort during 4th & 5th semester as part of dietetic course
- for the future (curriculum change in 2019): an alternative option is provided as part of placement for e.g. 2 weeks of placements (see syllabus)

FULDA

- integration in module “diet therapy” in 8th semester, summer term.
- students will not be part of the whole cohort, only mandatory in summer term, but students can continue the full MOOC voluntarily

GRONINGEN

- cohort of 4th and 5th semester
- in a specific module or as part of the “internal internship “

NEUBRANDENBURG

- integration in regular curriculum during the winter term (5th term)
- into the module "Theorie and Praxis ernährungsbezogener Intervention and Ethik".
- the DCP introductory (DCP Mooc) also accessible during the winter term
- remaining cases of the summer term also available to our 6th term students on a voluntary basis

ST. PÖLTEN

- integration in existing modules for 2019, in curriculum: 4&5th term, part of practice placement/internship
- integration of the MOOC as Inverted classroom in existing lectures

O6/6b Finalized syllabus available

The syllabus has been delivered in a Word document. The target group consists of the partner universities as well as other dietetic programs considering the use of the MOOC in their curriculum.

The latest version of the syllabus is available on the IMPECD website:

<https://impecd.fhstp.ac.at/>

The syllabus contains the following information:

-
- List of abbreviations
- The IMPECD project
- Syllabus
- Massive Open Online Course (MOOC)
 - What is the IMPECD MOOC?
- Development of a clinical case
- Competences, learning outcomes and evaluation- background
 - Development of the IMPECD competences
 - The five IMPECD competences
 - Methodological practitioner
 - Knowledge of Dietetics (Diet expert)
 - Evidence based practitioner
 - Lifelong learning
 - The IMPECD competence flower
 - Learning outcomes
 - Example of General Learning outcomes
 - Evaluation questions
 - Achieving the IMPECD competences: the matrix
- Reflection in education and professional development- background
 - What is professional reflection?
 - Portfolio
 - Pyramid of Miller
- Survey on the use and knowledge of reflection and evaluation in European dietitians and students
 - Reflection
 - Professional Recognition and Accreditation

- Evaluation
- Use of the IMPECD MOOC in the curriculum
 - Prerequisites
 - Options to implement the MOOC in the curriculum
 - Decision about the implementation of the MOOC in the curriculum of the five HEI's
- Appendix 1: Comprehensive overview of Learning Outcomes in IMPECD MOOC
- Appendix 2: Portfolio in the IMPECD MOOC
 - General data of the student
 - Reflection formats
 - Deep reflection
 - Short reflection
 - Short reflection after the wrong choice (Bad scenario)
 - General reflection
- Schedule and order of the cases/guidance for the five IMPECD universities

The consortium acknowledged the fact that the syllabus is a dynamic document. As the first run of the MOOC starting in spring 2019 will be a learning process, we will adapt the syllabus based on our experiences as well as the internal and external feedback in February 2020 (see 6c).

As a result of a survey (see work package O4+O5) that showed limited experience in reflection and evaluation among the dietitians and HEI partners this work package includes information on the didactic concepts. The same applies to the know-how with a 'MOOC.' Therefore, these aspects have been elaborated in separate chapters; the user can choose whether this chapter offers him new information and is useful eventually. The survey results of O4 and O5 are shortly presented in the syllabus to show the users that we considered their feedback, and to demonstrate the background variety with these didactic concepts. This diversity remains essential during the collaboration in the MOOC.

All practical information comes together in chapter 8: this provides some clear and precise suggestions on how the MOOC can be used or implemented within a curriculum, as well as options for guidance and prerequisites for each method.

Because several options on how to use the MOOC are available, a summary of choices was developed in a table (see chapter 8 of the syllabus for full table), that contains information each method information about

- How to implement
- Points of attention
- Pro's
- Contra's

The syllabus includes the decision on the implementation and evaluation process of the MOOC in the curriculum of the five partners HEIs.

Further in chapter 8, it also elaborates the method of the evaluation of students using the MOOC: since each university has its own educational culture of grading students, we opted for two evaluation systems allowing each HEI to grow and learn from each other. A first evaluation method is to assess students through their portfolio. Students are required to keep this portfolio while they work through the MOOC. The second evaluation method uses the generated scores students receive as a result of completing the courses in the MOOC. The consortium has made the following final decisions in June 2018:

- Both methods are particularly suited for formative evaluation: it provides insight into the learner's progress, learning method or development of competencies (especially reflection and collaboration skills).
- For the final summative grading, we recommend testing the dietetic knowledge/skills through traditional examination methods, such as oral/written exams, in order to obtain an objective and valid score.
- These principles are very complementary to the idea of using the MOOC as a supportive learning method within (dietetic) classes

O6/6c Syllabus evaluation results available

Since the development of a joint schedule among our partners was time-consuming and challenging, the syllabus is not distributed yet and was only evaluated by members of the consortium and their colleagues, including the heads of dietetics programs:

- Feedback on version 3 of the syllabus was asked for by responding to the following questions. The most noteworthy comments are included in this report:

After going through the syllabus:
1) Do you have a good thought on how the MOOC could be used in dietetics education?
<ul style="list-style-type: none"> ■ Yes, based on p.35-37, this provides a good overview for the decision-making process ■ As the online course can be adopted in two ways synchronously and asynchronously, it could be also used for part-time study programs very well ■ It could also be used as a chance to promote an interdisciplinary approach through implementing it into the curricula of different disciplines ■ The course could also be used to facilitate mobility/ remote work: as an intervention for the internationalization @home / virtual mobility ■ Of course, this class could be a great method for preparing for the placements students have to attend
2) If any, what kind of information do you think is lacking in the syllabus?
<ul style="list-style-type: none"> ■ Perhaps more information on recognition of the course for students of non-participating HEIs. What kind of certificate do they get (ECTS, LOs ...)?

- I would say that there is enough information on the course, goals etc. but in some cases the structure is not clear to me; like one can read about Miller's Pyramid already on page 12 but the image is presented on page 30.
- Also, there are some wording inconsistencies/issues like: leaf (of the flower) – I would rather say it's the petal (like Blütenblatt); evaluation is the word which is used both for assessment and also for evaluation in the truest sense of the word in this paper, I find it a little bit confusing

3) If any, which information is unnecessary in the syllabus?

- In my opinion the syllabus is aimed for different goals/ different target groups. The syllabus is a strong document but following the definition of a syllabus it contains too much information about the development process within the consortium. As an interested external user, you don't need this information. The syllabus highlights the very strong focus on learning outcomes through education. It's clear that this is an evidence-based document. There are also references to the decision-making process of the consortium during the construction of the MOOC. I'm not sure if this is relevant for an external user.
- There is a lot of background information on topics like competency-based education on page 16 or reflection on page 26 that I as a HEI staff member would not need but maybe not everyone is familiar with all the concepts of the EHEA. However, I wouldn't say that the information is unnecessary but there is a lot to read

The current version is the 4th version: previous versions were presented to the consortium and discussed during the transnational meetings, especially the meeting in Groningen in late March 2018.

O6/8 Syllabus available in the IMPECD- MOOC

The syllabus will be disseminated on the IMPECD website (<https://impecd.fhstp.ac.at/>) During the EFAD (European Federation of Associations of Dietitians) conference in Rotterdam in September 2018, several networking opportunities will be used to disseminate IMPECD results and we will provide printed versions of the syllabus for the interested attendees. At the same time the conference will also be used as an opportunity for the evaluation of the syllabus by asking for feedback following the same qualitative method as explained above (see Milestone 6c).

Challenges in work package 6:

For WP6, the primary challenge was the timeline. As we were still experimenting and evaluating the MOOC during the project period, the syllabus could only be substantiated during the last project year. Because each university has his agreements, calendar, holiday system and other organizational

aspects, it was difficult to finalize a schedule for testing the MOOC. We wanted students to participate and teacher to guide through the cases. These two additional requirements made it difficult to find a doable time window. We decided to run the MOOC entirely for the first time starting in spring/summer term 2019, and going forward we will use these experiences to update and improve the syllabus once all options and possibilities for future users are clear.

What was the project's impact on the participants and participating organisations involved in the project?

Teachers and students of AP benefitted from and increased their competence in

- International collaboration skills by working and spending time together during the ISPs and transnational meetings
- The participation in this Erasmus+ project has increased the desire to participate in other international projects in the future because of the experience we build up.
- Knowledge about the different cultures of the consortium
- Understanding of and empathy for other systems of education and methods of teaching. Searching for consensus during consortium discussions
- Organizing international exchanges with students and teachers (e.g., ISP1, where students were involved in the organization, besides the five participating students)
- Presentations, posters, articles and other publications in English
- Language skills (English) in general
- Sound and sustainable personal and professional connections with our partners
- New didactic methods for learning – the digital environment of Moodle is the same as we use in our university (since 2017); the project increased the familiarity with that environment and resulted in ideas how we will incorporate the new curriculum development
- Promoting the dietetic profession in general
- Supporting our universities as innovative and internationally focused institutions
- Knowledge and understanding of the dietetic care process
- Teachers involved in the IMPECD project learned to work with Moodle and how to create a lesson within this online tool. For each case another lesson is created. We learned that Moodle has advantages (the student can learn whenever he wants, it is easy to create a lesson in Moodle, you can evaluate how the students answer the question, you can add feedback, there are different types of asking questions,...) but also disadvantages (e.g. working and link competencies in the lesson, using colours, they're not a lot options for the layout, it is a linear path, the learner gets only a score for his first attempt, it is not possible to upload a PDF-file in the lesson: this has to be at the beginning of the case ...).
- Three team members didn't work with European partners before. It was a challenge for the team members to communicate in English and to learn the differences and similarities between the different education institutes, the education program, the responsibilities of a dietitian, names of medication and foods are also different (for example: minarine is unknown in Germany).

- We experienced to think 'out of the box' in visualising learning outcomes linked to competences by creating the metaphor of a flower.
- For our own institute, it was an excellent opportunity to work on the IMPECD project. Artesis Plantijn Hogeschool Antwerp published this project on their website.

Besides the aspects mentioned above, students specially benefited from and increased their competence in

- Students were involved in IMPECD for project work, bachelor theses and internal placement (e.g. co-organizing the ISP, social events, workshops etc.)
- Dietetic knowledge by using cases and European guidelines
- Professional development through Life Long Learning
- Using scientific literature and guidelines to solve a case
- Enhancing reflection skills
- Students are also more open to international exchange. In this way (ISP or at home) they get the chance to work on their dietary knowledge and they can improve their English language.

How did the project partners contribute to the project? Please detail specific competencies brought in by the partner organisations.

Teachers from AP lead WP4, 5 and 6. We contributed through:

- Sharing/implementing our experience and knowledge on reflection and portfolio that we gained after 15 years of competence-based education
- Sharing/implementing our experience and knowledge of evaluation methods, based on our experiences with e-learning, competencies and learning outcomes and validity of testing methods
- Sharing/implementing our experience in organizing international weeks
- Based on previous project experiences we collaborated and co-managed the work packages
- Due to the high workload and highest number of work packages, AP university provided extra working hours to achieve all our outcomes. AP also contributed during the ISP 1 by financing events and catering.
- Our contacts with the hospital were vital in the development of realistic cases
- During the application stage, we provided the lead university with sufficient input and contributed constructively during partner meetings
- We disseminated the project and its outcomes through internal, national and international channels
- Our connections with the students network ENDietS made it possible to hold four EFAD/ENDietS webinars related to IMPECD

The contribution of team Antwerp to the project was grounded on teamwork.

The advantage of our team is that we worked together, but also each team member took his/her responsibility of subtasks and monitored the deadlines individually. Team Antwerp was very interested in digitalization; it was often testing and trying to gain new insights into the online learning tool.

The dietitians of the team worked hard on developing the cases and supervised students during the 2 ISP's. This engagement was possible because of their competencies as a dietitian but also because of their tutor experiences in student projects. In developing the cases they stayed in contact with the non-university experts, they discussed a lot, brainstormed to improve the cases, divided the work but always asked each other for feedback. This method allowed us to take our action to a higher level and proved that the teamwork improved the final output.

Team Antwerp was responsible for Output 4 and 5. The didactics of the IMPECD MOOC implies that each lesson (each case) has learning outcomes which are based on three different levels (Taxonomy of Bloom). The elaboration of this started already at the very begin of the project (sep '15). Literature was used to create a framework assuring uniformity in the IMPECD MOOC. The necessary steps were explained to the partners. Team Antwerp gave feedback about evaluation questions, learning outcomes and reflection questions. Later in the project, the development of the IMPECD competencies were created. We then linked the different competencies to the learning outcomes of all the cases assure that every competency is met when the learner finishes the IMPECD MOOC. As a result, the IMPECD competence flower was created.

The idea of a student portfolio within the IMPECD project was ours. We have a lot of experience in reflection (in our curriculum students have to reflect in every course) and in student portfolio, in which we control the learning goals of the students and provide feedback on how to achieve them.

The fact that in 2017 our HEI integrated an own kind of Moodle system, resulted in an intense learning and working process with this tool on our side. The Moodle system at AP is very similar to the method used for the IMPECD MOOC. As a result, we could quickly work with the IMPECD MOOC system, bring in our cases, upgrade them, give feedback on the reflection questions in other cases, etc.

In our curriculum, the ICF model (International Classification of Functioning, Disability and Health) is of great importance. Students learn to work with it when solving clinical case studies during their education. Because our teachers are knowledgeable and experienced with the ICF they provided valuable feedback for other HEI's who weren't familiar with ICF.