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Erasmus+ Programme  
of the European Union



# **Development of practically-oriented student-centred education in the field of modelling of Cyber-Physical Systems - CybPhys**

**On line meeting  
September 27<sup>th</sup> 2021**

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# Agenda of the meeting

1. Information about the project progress
2. Method of new curricula testing with feedback from teaching staff, students, students organizations and entrepreneurs (professional associations, enterprises, etc.) involved in student teaching and curricula enhancement (covered 2.8 and D5.5 of the QAP)
3. Other issues.
  1. Preparations to MC and WS in Riga on November 15-16<sup>th</sup>
  2. Next meetings

# Project progress

- The courses for Ukrainian teachers were arranged in September
- RTU Publishing House is processing electronic text books electronic issue: 3 (CPNU), 6 (UCY), and 7 (KhNAHU).
- Partners have to prepare an extraordinary Financial report by **October 30<sup>th</sup>**
- PO of our project resigned on September 24<sup>th</sup>
- RTU will prepare the 3<sup>rd</sup> formal letter about suspension of Belarusian partners
- RTU prepares an adjustment to PA RTU-CPNU

# Feedback from the courses held in September

English courses: on-site in Bruges 13-17<sup>th</sup> September 2021.

*12 trainees*

Training seminar for representatives of Partner Countries (Teacher Training) on line:

- RTU, September 7-8<sup>th</sup> CPNU – 5; KhNAHU – 20; KNU – 11.
- KU Leuven, September 9-10<sup>th</sup> – total 23
- University of Cyprus, September 23- 24<sup>th</sup>

**Method of new curricula testing with feedback**  
from teaching staff, students, students organizations  
and entrepreneurs (professional associations,  
enterprises, etc.) involved in student teaching and  
curricula enhancement

*(covered 2.8 and D5.5 of the QAP)*

# The goal of the courses testing

- According to Log Frame Matrix (LFM) Partners reports with lists of the students studying in the modernized study programs
- Partners reports with a feedback from:
  - students by courses
  - academic/teacher staff involved in teaching of students by courses
  - students organizations
- The measurement of indicators according to the LFM are:
  - the number of validated / tested during one-year master-level courses
  - The number of students toughed
- Testing to be held twice: in Autumn of 2021 and Spring 2022
- Partners reports on curricular testing with feedback from teaching staff, students and experts from professional associations, enterprises and scientific research institutions involved in teaching of students, curricular modernization and reviewing.
- Testing reports: January 15<sup>th</sup>, June 15<sup>th</sup>

# The courses to be tested

- **CNTU:** 5 new courses and 2 modernized courses
- **KNU:** 3 new master degree and 4 updated master degree courses.
- **KhNAHU:** 2 new training courses for master's students program “Electric Vehicles and Energy-Saving Technologies” and 4 updated master degree courses

# Training Evaluation Sheet for Students

No	Criterion	Strongly disagree, %	Partially disagree, %	Neutral assessment, %	Partially agree, %	Strongly agree, %
1	All study program themes required to achieve the defined learning outcomes were covered					
2	The course was well-structured and the themes were explained in a comprehensible manner					
3	The logical structure of the lecture was maintained					
4	Audio-visual materials were efficiently used during the lecture					
5	Creative thinking was efficiently promoted					
6	Practical application of theory was efficiently promoted					
7	During the class the amount of theoretical material and practical tasks was balanced					
8	Recommended literature sources were accessible and helped in acquiring the course materials					
9	The lecturer/professor's attitude to the students was positive and helpful					
10	The time for the completing of the practical tasks was enough					
11	The information about the classes organisation was clear and easy available					



What did you like in the course?

Чем Вам понравился этот курс?

Outline 3 points you would like to take with you/have learnt in this class

Выделите наиболее значимые с Вашей точки зрения знания, которые Вы приобрели на этих занятиях

Do you have any suggestions for further improvement of the course? (If so, please give details and if you would like to be contacted about this idea please include your email address)

Есть ли у вас какие-либо предложения по дальнейшему совершенствованию курса? (Если да, то просьба уточнить, и если вы хотите, чтобы с Вами связались по этому вопросу, пожалуйста, укажите адрес своей электронной почты)

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**If you do not mind, please could you give us some additional more information about yourself**

***Gender:*** Male/Female/Prefer not to specify

***Age:*** 16-21      22-30      31-40      41-50      51-60      61+

***Status:*** Home Student                      EU Student                      International Student

# Consolidated for students

## Report

on the Spring semester testing of courses and laboratory practices  
in the framework of the project «PHYSICS» program ERASMUS+ EU

Date of testing: 18.04-25.06.2018

How many questionnaire forms have been proceeded: 31

How many questionnaire forms were found valid: 31

Course title	Degree of course (bachelor, master)	Testing results				
		Strongly disagree %	Partially disagree %	Neutral assessment %	Partially agree %	Strongly agree %
Nonlinear Optics	4-year course	1.6	0.4	9.1	22.7	66.1
Semiconducting devices (lab. practice)	4-year course	0	6.5	11.7	39	41.6
Integrated Environment for Engineering Computing (lab. practice)	4-year course	4.2	8.3	13.4	29.1	44.5

### Statistics on the answers given on the course (in percentage).

Comments and conclusions for BSU students questioning about testing results by 1<sup>st</sup> and 2<sup>nd</sup> items with free answers in Annex 1 (feed-back testing sheets):

Question 1. Most master students noted that the lectures were interesting and relevant. Modern teaching methods were used: presentations, video. Some of them admitted friendly atmosphere during the lecture courses.

Question 2. We received a large amount of information on the subjects studied and mastered the skills to work with modern software for physical processes simulation as well. We also learned about nanomaterials and nanotechnologies.

Question 3. Most mater students noted the necessity for getting more audio and video materials to increase the efficiency of self-study.

# Training Evaluation Sheet for teachers

## Questionnaire for staff

Title of training course: \_\_\_\_\_

Level of training course (Bachelor, Master, Course  
year): \_\_\_\_\_

Date: \_\_\_\_\_

Name of Trainer(s): \_\_\_\_\_

Room: \_\_\_\_\_

Full number of students registered for the course				
Evaluation of average attendance of the lectures (%)				
Evaluation of average attendance of the classes, (%)	Lect	Pract	Lab	
		-	-	
The number of students with intermediate control assessment on laboratory and practical exercises	High (9-10)	Average (6-8)	Low (4-5)	Failed (< 4)
The number of students who have ultimate control assessment (the exam)	High (9-10)	Average (6-8)	Low (4-5)	Failed (< 4)
The proportion of tasks (in %) of all included in the course, aimed at:				
pure application of knowledge	development of critical thinking, causal-investigatory analysis, development of practical experience and skills		development of new competence, independent thinking, the ability to non-standard approaches in solving problems and making decisions	
The proportion of students who have completed these tasks with the highest rating (in %)				
pure application of knowledge	development of critical thinking, causal-investigatory analysis, development of practical experience and skills		development of new competence, independent thinking, the ability to non-standard approaches in solving problems and making decisions	

1.What is, how do you think, the importance of this course?

1.Point out a few basic things that you consider most important in mastering this course?

2.Do you have any suggestions for further improvement of the course? (If so, please give details and if you would like to be contacted about this idea please include your email address)

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**If you do not mind, please could you give us some additional information about yourself?**

**Status:** assistant/ lecturer/ assistant professor/ professor

**Teaching experience:** just started/ 3-7years/ 7-15years/ 15-20years/ >20years/

\_\_\_\_\_ Signature

**Questionnaire for staff**

Title of training course: Computer simulation  
 Level of training course (Bachelor, Master, Course year): Master  
 Date: 12.01.2018  
 Name of Trainer(s): Girgel SS  
 Room: 2-10  
 Faculty: Physics and IT

Full number of students registered for the course	27			
Evaluation of average attendance of the lectures (%)	80%			
Evaluation of average attendance of the classes, (%)	Lect 70%	Pract 100%	Lab .	
The number of students with intermediate control assessment on laboratory and practical exercises	High (9-10) 3	Average (6-8) 17	Low (4-5) 7	Failed (<4) —
The number of students who have ultimate control assessment (the exam)	High (9-10) 3	Average (6-8) 18	Low (4-5) 6	Failed (<4) —
The proportion of tasks (in %) of all included in the course, aimed at:				
pure application of knowledge	development of critical thinking, causal-investigatory analysis, development of practical experience and skills		development of new competences, independent thinking, the ability to non-standard approaches in solving problems and making decisions	
5	18		10	
The proportion of students who have completed these tasks with the highest rating (in %)				
pure application of knowledge	development of critical thinking, causal-investigatory analysis, development of practical experience and skills		development of new competences, independent thinking, the ability to non-standard approaches in solving problems and making decisions	
100%	80%		75%	

1. What is, how do you think, the importance of this course?
2. Point out a few basic things that you consider most important in mastering this course?
3. Do you have any suggestions for further improvement of the course? (If so, please give details and if you would like to be contacted about this idea please include your email address)

If you do not mind, please could you give us some additional information about yourself?

Status: assistant/ lecturer/ assistant professor/ professor

Teaching experience: just started/ 3-7years/ 7-15years/ 15-20years/ >20years

 Signature

# Testing of students organization representatives

- The same questionnaire as for students
- The similar consolidation reporting form

# Schedule for curricular evaluation

## Two reports

<b>(D2.8)</b>	Partner' <b>Reports on new curricula testing</b> with feedback from teaching staff, students, student' organisations and entrepreneurs (professional associations, enterprises, etc.) involved in student teaching and curricula enhancement (covered also by D5.5)	15.01.22 14.06.22.
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## A report

<b>WP6</b> <b>(D6.4)</b>	Elaboration of recommendation obtained in the meetings and workshops with associated partners and other stakeholders. <b>A report with recommendations for new master-level program:</b> introduction in PCs universities beyond the project.	14.11.22
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**Other questions**

# Preparations to MC and WS in Riga on November 15-16th

- **The target of the meeting and agenda**

- Report from the leaders of work packages – progress, hurdles, risks and plans
- EU partners – preparations to the students training
- Quality Assurance Plan – update
- Dissemination and exploitation plan update

- **Logistics**

- Invitations
- Tickets, hotels

# **Next meeting schedules**

**The meeting will be held on line:**

On October: if necessary

Thank you for contribution and  
participation!