

Educating students for developing high quality research skills (ENSURE)

The Education, Scholarships, Apprenticeships and
Youth Entrepreneurship Programme (ESAYEP)
2014 – 2021 – EEA Financial Mechanism

At Staff Week - EEA/Norway Grants, Tromsø, 04-07 November 2019

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PARTNERSHIP

"Lucian Blaga"
University of Sibiu
| LBUS | Romania

Coordinator

University of
Tromsø – The
Arctic University of
Norway | Tromsø

Partner



ENSURE`s Objectives

Aims:

- Provide a set of modules with focus on medicine and medicine-related studies enabling students to build their **transversal research-oriented competences and skills**
- Create **learning materials** for students on
 - how to conduct clinical studies
 - on the ethics and legal provisions of data-usage of in research with humans/patients
 - how to formulate a project idea and plan
 - how to search for literature/select and evaluate targeted literature
 - how to write a project plan (research papers and scientific report)
- Provide a **learner-oriented methodology** for transferring the knowledge **using real-life problems**, where students can apply their knowledge. Support will be offered by teachers through a moderation process both in individual and group settings during workshops.
- Organise a **series of workshops** wherein students will exercise their transversal research-oriented skills.

Course/workshops: October 23-29, 2019

Project duration: 12 months - 01.12.2018 – 30.11.2019

Who initiated the project:

Professor Victor Costache, Head Cardiovascular and Thoracic Research Group, «Lucian Blage» University of Sibiu (LBUS), Sibiu

Contacted → prof. Terje Steigen → Rector of UiT → «Go»

Ioana-Andreea Mircea, LBUS, identified the funding within EEA, grants 2014-2021

- Did the formal applications as primary institution; January, 2018
- Organized the formal agreements with UiT as partner

Kick-of meeting

Tromsø, March 21-22, 2019

Participants from Sibiu, LBUS

Ioana Mircea, administrative

Gabriella Candea, maths/statistics

+

Victor Costache, prof. LBUS, (not attending)

UiT The arctic university of Norway

Terje Steigen, MD, PhD, associate prof.

Finn Egil Skjeldestad, MD, PhD, professor

Head program Scientific competence program

About the project

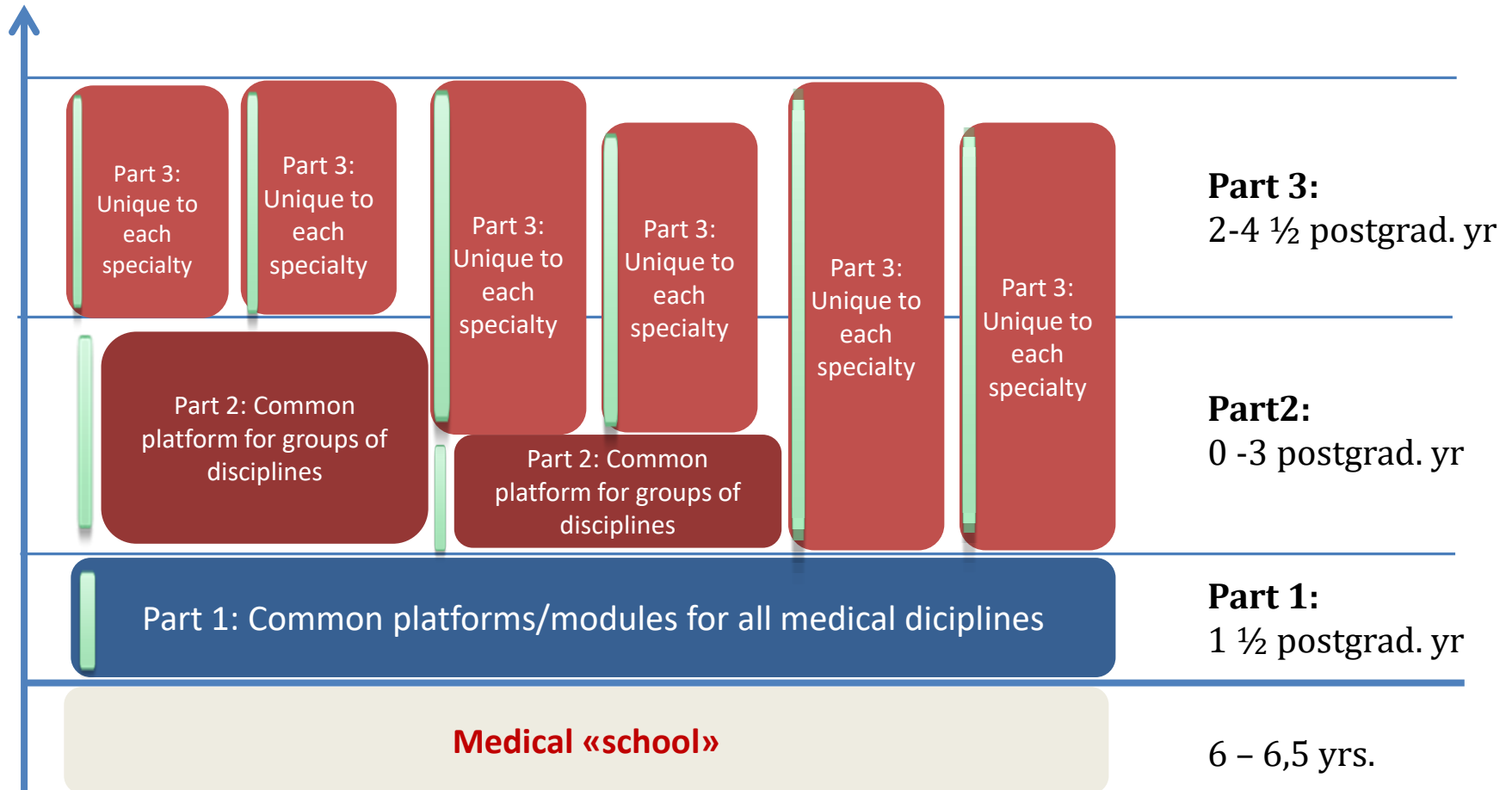
Proposal course

Curriculum plan – scientific competence UiT - medicine

	Science/knowledge management	Patient safety/quality	
1st yr autumn	HEL 0700 (Introduction to health care/laws/science) MED-1501 (Topic related introduction to science)		
2nd yr autumn (7 weeks)	Epidemiology/biostatistics		S P I R A L
	Introduction scientific knowledge management (part 1)		
2nd yr from August to May	Scientific specialization (Course unit 2.5)		
	Scientific Knowledge Management (Part 2: given topics for specialization, group work) (assess and summarize literature on a narrow topic)		
	2nd year scientific report (4 weeks no teaching)		
	Project plan/structured report/referee feedback/presentation report		
3rd yr autumn	Scientific Knowledge Management Part 3: Integrated specialization, group work		L E A R N I N G
4th yr spring	Introduction/use of guidelines – Case MS	Introduction	
4th yr autumn	Masterthesis (project description) (4 weeks no teaching)		
5th yr autumn	Masterthesis (5th yr report) (11 weeks no teaching)	Follow and report a project in safety/quality*	
5th yr spring			
6-år-høst	Presentation of masterthesis (5 (8)+3 min)	More teaching on safety/quality improvement work	
		Presentation report project*	

New structure for postgraduate specialization in Norway

Starting 2017 (Planning from 2014)



Common compulsory competence modules must be integrated in Parts 1, 2 and 3:

Content: Ethics, management, **system understanding**, organizational development, legislation, **quality and patient safety, understanding of research, knowledge management, communication, interaction, patient and user involvement, training of patients and relatives**

Course plan

Educating students for developing high quality research skills (ENSURE)

Curriculum plans

- Teaching scientific competence (LBUS/UiT)

Framework

- Study design
- PICO

Ethics

Legal aspects

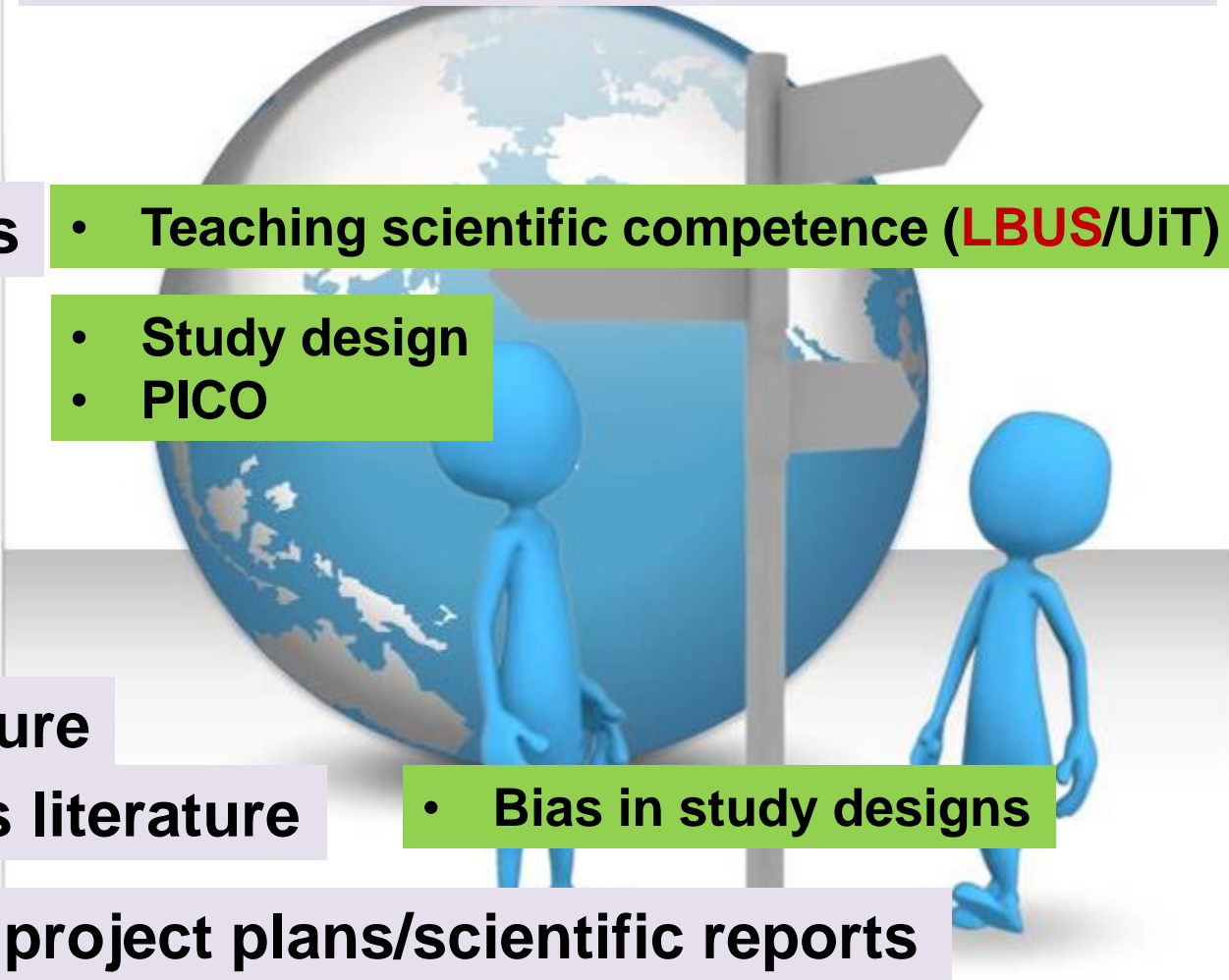
Search for literature

Read and assess literature

- Bias in study designs

The structure of project plans/scientific reports

Communicate scientific work



Course plan

Educating students for developing high quality research skills (ENSURE)



Curriculum plans

Framework

- Lectures
 - Group work
 - Plenary summary
-
-

Ethics

Legal aspects

- Lectures
 - Group work
 - Plenary summary

Search for literature

Read and assess

- Lectures
 - Group work
 - Plenary summary

The structure of p

Communicate scientific work

Selection of students

"Lucian Blaga"
University of Sibiu
| LBUS | Romania

Coordinator

Announced in class by prof. Costache

- Application form
- CV
- Letter of motivation
- Selection

20 students

Curriculum plan – scientific competence UiT - medicine

4th yr autumn

Announced On Canvas
No response 3 students
Starting in October

5th yr autumn

Two weeks no teaching – start of semester

5th yr spring

Masterthesis (5th yr report) (11 weeks no teaching)

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Course plan

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Curriculum plans

Framework

- «Case» group work – Research questions for master thesis from the 3 Norwegian students

Ethics

Legal aspects

Course goal: «outline» for project plan

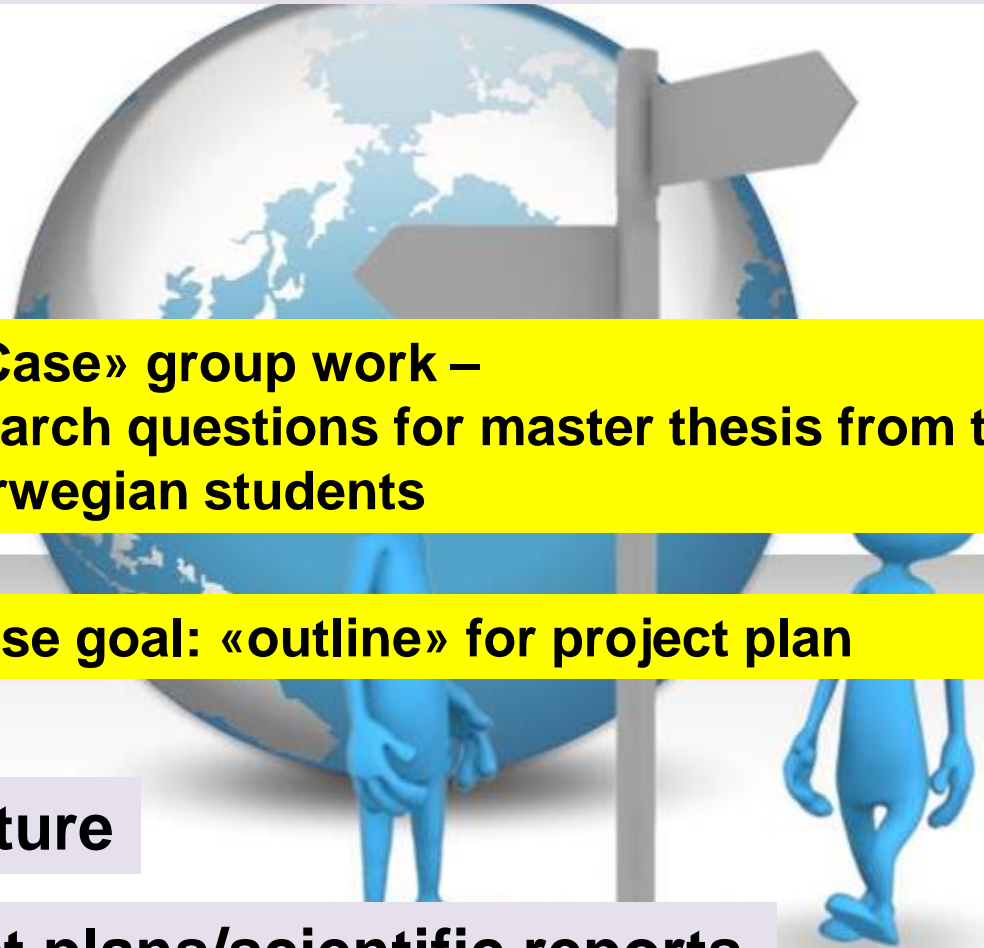
Search for literature

Read and assess literature

The structure of project plans/scientific reports

Communicate scientific work

Course test – not exam



Facilities

"Lucian Blaga"
University of Sibiu
| LBUS | Romania

Coordinator

1 conference hall – 40 seats
1 group room

3 groups – a lot group work

Screens
Print out

Teachers:

- 3 Norwegian teachers
Attended/coached groups
- 4 Romanian teachers
attended partly the 1st days,
no group participation

Attendance:

8-10 students attended all activities

**The other students were attending
classes, clinical work etc., on/off.**

Course activity:

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Day 1: Wednesday October 23

Time:

09.00 Welcome to Sibiu

09.15 **Scientific teaching at medical school at the University of Sibiu**

Replaced by: Risk factors for CVD

09.45 Scientific teaching at medical school, UiT The Arctic University of Norway

11.15 How to conduct/design of clinical studies

13.45 Examples of cardiovascular research at University of Sibiu.

14.30 How to deal with uncertainties in clinical practice?

15.00 PICO's (Population, Interventions, Comparisons, Outcomes, Study Design

16.00 Group work – define/formulate research question, fill in a PICO table

17.00 Summarize group work, define/formulate research proposals, PICO

18.00 End day one

Course activity:

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Day 2: Thursday, October 24

Time:

- 09.00 **Ethics in research**
- 09.00 Legal provision in medical and human-related scientific research;
- 10.00 Introduction to Search strategies in information systems
- 11.00 Group work – Search strategies for specific research questions
- 13.00 End day 2

Course activity:

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Day 3: Friday, October 24

Time:

- 09.00 Search strategies in information systems - interactive session!
- 10.30 Group work –writing up PICO, ethics, research strategies related to the research question
- 12.00 Summary group work – powerpoint presentations
- 14.00 How to read and assess scientific papers (GRADE)
- 15.00 Bias in epidemiological research.
- 16.00 How to assess a RCT study
- 16.30 How to assess a case-control study
- 17.30 Group work – assess 1 target paper selected through literature search
- 18.30 End day 3

Day 4: Saturday October 26

- 09.00 Coached group work – assess 3 target papers
- 12.00 Free time

Sunday October 27 organized cultural activities/sightseeing

Course activity:

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Day 5: Monday October 28

Time:

- 09.00 Academic writing of project plans, scientific reports 09.45 Break
- 10.15 Group work – write detailed outline for a project plan (proposal)
- 13.00 Continuation of ... Group work – write detailed outline for a project plan
- 14.30 Data collection, data cleansing, data visualization and evaluation 15.15
- 15.30 Continuation of ... Group work – write detailed outline for a project plan
- 18.00 End day four

Tuesday October 29

- 09.00 How to present a project plan/scientific report
- 10.00 Group work – make a ppt-presentation of the project plan
- 13.00 Continuation of... Group work – make a ppt-presentation of the project plan
- 14.00 Course test
- 14.30 Presentations of project plans (25 minutes each group)
- 15.30 Continuation of... Presentations of project plans (25 minutes each group)
- 17.15 Summary/evaluation of course
- 17.45 Closing remarks
- 18.00 Course end

Resources – hours spent at UiT The Arctic University of Norway

	Admini- strative	Planning	Travel	Preparing lectures	Lectures	Group work	Reporting	In total
	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours
Prodean	75	15						90
Project leader	46	90	16	26	8	28	16	230
Assoc. Prof. A			16	16	2	18		52
Assoc. Prof. B			16	4	2	12		34
Adm. staff	75							75
In total								481

Course starting Wednesday October 23rd – ending Tuesday October 29th

Budget

ENSURE	Budget euro	Budget NOK 9,3	Hours budget
Management	3 000	27 900	76,5
O1 Teacher/Training/Researcher	4 820	44 826	150,0
O1 Administration	1 570	14 601	75,0
O2 Teacher/Training/Researcher	4 820	44 826	150,0
Mobility STMS Individual support	1 160	10 788	
Mobility STMS Travel	1 100	10 230	
Mobility STTE Individual support	3 180	29 574	
Mobility STTE Travel	1 650	15 345	
Total	21 300	198 090	451,5

Course evaluation

- Knowledge test – 16 out of 23 who started responded

Multiple choice – 11 questions		
Correct score	n	%
5	1	6
6	3	19
7	1	6
8	2	13
9	3	19
10:11	6	38
	16	100

Course evaluation

- Questions about learning outcomes

Which of these learning statements apply best to your situation after having participated in the “ENSURE” course?

1. I have received some knowledge about the subject, and will be able to reproduce parts of learned material
2. I will be able to apply some knowledge in specific situations under supervision
3. I will be able to apply some knowledge in specific situations independently and see relationships
4. I will be able to use knowledge, see connections and be able to supervise / guide others in the subject

N	%
2	13
12	75
1	6
1	6
16	100

What is your opinion about the topics covered during this course, in which topics would like to have more or less comprehensive lectures / group work?

	No opinion	Less	More	Fine as covered
	N	N	N	N
Q13: Study designs			10	6
Group work	1	1	6	8
Q14: PICO	2	2	6	6
Group work	2	1	4	9
Q15: Ethics/legal issues				
Group work				
Q16: Knowledge assessment	1		9	6
Group work	2		9	5
Q17: Report writing	1		10	5
Group work	1	1	11	3
Q18: Scientific presentation	5		8	3
Group work	6	1	7	2



PARTNERSHIP

