

# European Space University for Earth and Humanity

UNIVERSEH is an alliance of five European universities established to develop a new way of collaboration in the field of Space, within the "European Universities" initiative.

The alliance aims to create new higher education interactive experiences for the university community, teachers and students, and for the benefit of society as a whole. Such initiatives will enable broadminded, informed and conscientious European citizens to capture and create new knowledge and become smart actors of European innovation, valorisation and societal dissemination within the Space sector, from science, engineering, liberal arts to culture.

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# D. 2.17 Winter School report

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# **Document History**

Version	Date	Author	Partner	Summary of main changes
	2023-04- 28	AnnaCarin Larsson	LTU	Content, writing
	2023-04- 28	Nicole Dittrich	UDUS	Editing format, text,

Local organising committee: AnnaCarin Larsson, Victoria Barasbash, Linda Alfredsson Collaborating Organisers: WP3, WP7, WP2 Collaborating Universities: LTU, AGH, UDUS

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# 1. Introduction

The first Arctic Winter School was originally planned in February/March 2022, due to the Covid pandemic, the course was postponed until February/March 2023. The Arctic Winter School was developed in close cooperation with colleagues at AGH UST and Université Toulouse Jean Jaurès. The course has received Erasmus+ funding as a Blended Intensive Program (BIP).

## 2. Aims and Objectives

The main objectives of the course were to allow students to acquire knowledge about the earth polar atmosphere, optical phenomena, snow and ices in different perspectives, climate change and its significance for the Arctic region. The students should be able to explain polar atmospheric phenomena and processes, qualitative and quantitative evaluate them, as well as to determine their significance from the holistic perspective.

Communication and collaborations skills in multilingual environments is an essential part of the course.

# 3. Curse content and structure

The course includes teaching and learning activities, that give correct interpretation of the physical phenomena as well as training in experimental techniques, report writing, oral presentation, teamwork.

- Lectures.

- Study visits to SSC- Esrange Space Center, scientific facilities at the Division of Space Technology (LTU) and the Swedish Institute of Space Physics (IRF), LKAB iron ore mine, Abisko Research Station.

- Projects and interactive sessions.

-Practical parts including field observations and exercises, data analysis and hands-on exercises.

Survival exercises in Abisko- this part was no performed due to extreme weather conditions and teaching staff that became ill.

English was the main language with inclusive parts in French, German, Polish and Swedish

The course was divided in three parts. Part 1 was performed on-line, part 2-7 was on site in Kiruna, and part 8 was on-line.

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Part 1. Meet your team- learning to know the team members and their expertise and start the grounding process in the team

Part 2. Language and linguistic aspects of intercultural communications. Terminology for New Space and polar research

Part 3. Sustainable Arctic: Environment and society in the changing Arctic. The Arctic Five collaboration.

Part 4. Polar atmosphere and Arctic climate systems.

Part 5. Snow and ice in different perspectives- this part was cancelled

Part 6. Nano satellites and stratospheric balloons for polar research.

Part 7. Space product innovation.

Part 8. Project Space for a Sustainable Arctic. Group work and presentations on-line.

The Arctic Winter School is a blended course, the course platform Canvas was used for communication between students and teachers, assignments etc.

#### Swedish language course

The students were able to join an on-line Swedish language course before the Arctic Winter School. The focus of this course was basic interpersonal communication skills. 14 students participated in the language course.

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# 4. Participants

The number of participants was agreed among the UNIVERSEH partners and set to 10 students per university. Application rounds were performed at each university, and then 10 students from each university were nominated.

One student from AGH resigned late, and was replaced by a student from LTU, one student from Luxembourg cancelled her participation due to illness a few days before the start of the course, it was not possible to replace her. 49 students attended:

- 10 students from Toulouse
- 10 students from HHU
- 9 students from AGH
- 9 students from Luxembourg
- 11 students from LTU

19 Bachelor students, 22 Master students and 8 PhD students participated in the course. Female students were well represented, in the course there were 29 women and 20 men. Students with different educational backgrounds and levels were welcome to apply, the goal was to have a group of mixed competences. English level B2 was required. The work of the participants was assessed through assignments, an on-line quiz, and an oral presentation.

# 5. Lectures and Instructors

There were nine lectures and instructors involved in the on-site and online part of the course. One part of the course "Snow and ice in different perspectives" was unfortunately not possible to perform. There was a storm in the mountains and we had to cancel the field trip to Abisko. The teacher of this part also became ill, so we could not carry out the activities in Kiruna either.

**Dag Avango** is a professor of history, specialized in the history of technology and cultural heritage. His research lies at the interface between archeology and history, combining theoretical approaches and methods from history, archeology, critical heritage studies and Science and technology studies. In his research, Avango has examined the interaction between people, technology and environments in historical processes of change.

**Victoria Barabash,** Senior Lecturer and Head of Division of Space Technology. Research subject: Atmospheric Science. Barabash's background is in the physics of the upper polar atmosphere. She is the consortium coordinator and faculty director of the Joint Master program in Space Science and Technology – SpaceMaster, a collaborative joint program of five European universities. Victoria has almost two decades of experience in teaching and supervision of graduate level students and is involved in the co-supervision of several PhD students.

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**Axel Hagermann**, Professor and Head of Subject, Research subject: Atmospheric Science. A geophysicist (or rather planetary scientist) by training, Hagermannl specialises in forms of ice as found outside Earth. He is particularly interested in cold regions of the solar system, such as Mars, or comets. As a researcher HAgermannl has participated in several space missions to cold places in the solar system, including ESA's Rosetta and Huygens missions and NAXA's InSight mission to Mars.

Anna Krukiewicz-Gacek, Senior instructor in English and Director of the Department of Foreign Languages at the AGH University of Science and Technology, Kraków, Poland. Anna completed her Master's degree in English Philology at the Jagiellonian University in Krakow, Poland. She has been developing syllabuses for ESP courses, Academic English courses, and conducting EMI skills workshops for students and academics for more than twenty years. Krukiewicz-Gacek research focuses on the applications of cognitive linguistics in language teaching and intercultural communication.

#### Thomas Kuhn, Professor. Research subject: Atmospheric Science.

Khun has a background in physics, aerosol, and atmospheric science. His research focuses on ice in the atmosphere, mainly in the form of snow and ice in clouds. He is the faculty director of the Master programme Spacecraft Design, an international two-year programme running in Kiruna. Khun has long experience in supervising space science and technology projects, teaching atmospheric science topics, and supervising PhD students.

**René Laufer**, Professor and Head of Subject. Research subject: Space Systems. Having done his undergraduate/graduate and PhD degrees in space engineering, Laufer was involved in planetary exploration and satellite missions as well as scientific instrument and research facility projects during the now 30 years of his career at space agency and academic institutions. He has worked in Europe, North America and Africa and taught various space-related topics on five continents with a strong interest in small satellites, systems engineering, and the Moon.

#### Katja Merkle-Söderholm, Lecturer

Merkle-Söderholm, is a lecturer at Luleå University of Technology. She works at the department of Health, Education and Technology. She has a Degree of Licenciate of Arts from the University of Gothenburg. At LTU she teaches German and Swedish as a second language. Furthermore, she is involved in the teacher education at LTU. She is teaching the Swedish language course offered for students participating in the Arctic Winter School.

#### Mathias Milz, Associate Professor. Research subject: Atmospheric Science.

Milz is meteorologist and atmospheric physicist. His research field is atmospheric remote sensing and radiative transfer with a main focus on tropospheric and stratospheric water vapor and related processes. He has a long experience in education and teaches various courses in the field of

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atmospheric and space science as well as in teaching administration as a faculty director of the Swedish national Master program in space technology.

**Josiane Mothe**, Senior professor in Information systems at Universié Toulouse Jean Jaurès Mothe is a senior professor in information systems. Her research area is information retrieval. She has participated in several European projects related to data processing and mining. She has developed a StarTech program in France in which trainees are put in the shoes of an entrepreneur and learn to use a business canvas model.

Peter Törlind, Associate Professor. Research subject: Product Innovation.

Törlind is a researcher focusing on team innovation and has been involved in research on additive manufacturing for space components. Peter teaches creativity, innovation and business development courses and has been responsible for the UNIVERSEH StarTech event.

## 6. Students expectations of the course

Before the course started students were asked about their expectations of the course.

Some of the answer can be found below:

1. What are your expectations for your upcoming UNIVERSEH mobility?	2. What do you wish for in your UNIVERSEH mobility an/or course?
1. I hope to gain new skills, experience and techniques in space technology and other areas outside my major. 2. Building new relationships with other participants, learning about cultures and language of others, working together as a team and learning something from other fields.	Opportunities and networking available in the space industry
To experience working together with people from different countries and cultures. To get insight and inspiration by working on a space related project to find solutions on climate change.	Not sure if I understand the question, but; I wish to inspired and have great learning and social experiences from the course.
Meeting Students from different countries an Bildung friendships. Learn a lot about different cultures, space, and Arctic environment.	Time to connect with each other. Learning combined with fun activities.
New input, getting familiar with northern region and connect with people, getting to know study perspectives	Supporting everybody
Learning new stuff about space and the arctic. Do activities that I can not do in my country. Taste swedish food. See the northen lights. See some animals.	Just to have an amazing time and not to much stress, to enjoy the arctic here. It would be nice to meet people that are realy working on the Space area and do some practic stuff with them.
Nothern lights, nature, outdoor activities and pratical works	Nothern lights, nature, outdoor activities and pratical works

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meeting new people, living new experiences, learning	
new things and seeing Aurora borealis	learn a lot about space and about Arctic !

#### 7. Evaluation of the course

23 students participated in the UNIVERSEH mobility survey.

The overall mobility experience among the students, rated from 1 (very bad) to 5 (very good)

#### 18 students: Very good

#### 4 students: Good

#### 1 student: Average

Working together in multi-cultural teams, meeting new friends was the thing the students enjoyed the most about the course.

Concerning learning outcomes, many students have mentioned the lecture about space weather and polar weather phenomena.

The questions- "What did you enjoy the least" collected answers like

- Some lectures were to deep into space, difficult for students with other backgrounds
- Lack of time for the product innovation work shop
- Not being able to go to Abisko, and the cancelled outdoor activities

#### 8. Lessons learned for future Summer and Winter Schools:

- When having students from different disciplines, it is important to prepare them well. technical terminology can be presented on-line well in advance and can also be part of the language course that run before the actual course.
- Work with teacher reflections concerning learning activities of theoretical and practial nature
- Have a back up plan and replacement ready, fi a teaches becomes sick
- Since the weather situation in the Arctic can be quite unstable, A venue like Abisko, probably more suited for a weekend visit and not suitable for a field trip with lectures
- Set up a place for outdoor activities at the main course venue (in case of bad weather conditions)
- Documents, guides, surveys, UIVERSEH certificate and LTU-transcripts (Ladok template) presented and published in the Canvas room
- Better coordination between Canvas and Moodle

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Annexes:

Arctic Winter School LTU's survey

Student expectations after mobility

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<sup>2.2)</sup> Om ja, fick du ta del av tidigare kursvärderingars resultat och hur kursen utvecklats baserat på det? If yes, did the course introduction cover previous course evaluations and how the course has been developed based on those?

Ja/Yes (		50%	n=4
Nej/No (		50%	

2.3)	Kursens mål har varit tydliga. The intended learning outcomes of the course have been clear.	<b>Instämmer ej/</b> Strongly disagree	0%	0%	0%	0%	66,7% 33, 66,7% 33, 5 6		Instämmer helt/ Strongly agree	n=3 av.=5,3 dev.=0,6 ab.=1
2.4)	Kursens innehåll har bidragit till att uppnå kursplanens mål. The contents of the course have helped me to achieve the intended learning outcomes of the course.	<b>Instämmer ej/</b> Strongly disagree	0%	0%	0%	0%	33,3% 66,		Instämmer helt/ Strongly agree	n=3 av.=5,7 dev.=0,6 ab.=1
2.5)	Kursplaneringen/studiehandledningen har gett god vägledning. The course planning and the study guide have provided good guidance.	<b>Instämmer ej/</b> Strongly disagree	0%	0%	0%	0%	33,3% 66,		Instämmer helt/ Strongly agree	n=3 av.=5,7 dev.=0,6 ab.=1
3.	Undervisningskvalitet Quality of teaching									
3.1)	Lärarnas insatser har varit ett stöd i mitt lärande. The teacher's input has supported my learning.	<b>Instämmer ej/</b> Strongly disagree	0%	2	0%	0%		0% + 6	Instämmer helt/ Strongly agree	n=4 av.=5,5 dev.=0,6
3.2)	Kursens undervisningstillfällen med teoretisk karaktär har varit givande. The teaching and learning activities of theoretical nature have been rewarding.	<b>Instämmer ej/</b> Strongly disagree	0%	0%	0%	25% ⊢ 4	25% 50		Instämmer helt/ Strongly agree	n=4 av.=5,3 dev.=1
3.3)	Kursens undervisningstillfällen av laborativ, skapande eller verksamhetsförankrad karaktär (t ex laborationer, exkursioner, VFU, projekt eller konstnärliga produktioner) har varit givande. The practical/creative teaching and learning activities of the course e.g. labs, field trips, teaching practice, placements/internships, project work, artwork, music, theater productions have	<b>Instämmer ej/</b> Strongly disagree	0%	0%	0%	0%	50% 50		Instämmer helt/ Strongly agree	n=4 av.=5,5 dev.=0,6
3.4)	been rewarding. Det tekniska stödet för kommunikation (t ex lärplattform, e-mötesverktyg) har fungerat bra. The technical support for communication, e.g. learning platform, e-learning resources, has been satisfactory.	<b>Instämmer ej/</b> Strongly disagree	0%	0%	 0%  3	0%	25% 75		Instämmer helt/ Strongly agree	n=4 av.=5,8 dev.=0,5
4.	Kursmaterial Course materials									
4.1)	Det anvisade kursmaterialet har varit ett stöd i mitt lärande (t ex litteratur, laborations- anvisningar, presentationsunderlag). The materials assigned for the course, e.g. books, lab instructions, presentation frameworks, has supported my learning.	<b>Instämmer ej/</b> Strongly disagree	0%	0%	0%	0%	33,3% 66,		Instämmer helt/ Strongly agree	n=3 av.=5,7 dev.=0,6 ab.=1
	Examination (om examination är gjord) Exam	(only answer th	nis que	stion	if yo	u ha	ve done	e the e	exam for the	•
5.1)	<b>Examinationen har motsvarat kursens mål.</b> The examination was in accordance with the intended learning outcomes of the course.	<b>Instämmer ej/</b> Strongly disagree	0%	0%	0%	33,3% 	0% 66, 5 6		Instämmer helt/ Strongly agree	n=3 av.=5,3 dev.=1,2 ab.=1
6.	Helhetsbedömning Overall assessment									
6.1)	Arbetsbelastningen i kursen motsvarar kursens poäng. The workload of the course is appropriate for the number of credits given.	Instämmer ej/ Strongly disagree	0%	<u>0%</u> 2	0%	0%	33,3% 66,		Instämmer helt/ Strongly agree	n=3 av.=5,7 dev.=0,6 ab.=1

<sup>6.2)</sup> Utifrån kursens mål har kravnivån varit tillräckligt hög. Given the aims of the course the level of work required has been appropriate.	Instämmer ej/ Strongly disagree	0%	0%	0%	0%	25% ⊢ 5	75%	Instämmer helt/ Strongly agree	n=4 av.=5,8 dev.=0,5
<sup>6.3)</sup> <b>Mitt helhetsintryck är att kursen varit bra.</b> <i>My overall impression is that this has been a good</i> <i>course.</i>	Instämmer ej/ ] Strongly disagree	0%	0%	0%	0%	25%	75%	<b>Instämmer helt/</b> Strongly agree	n=4 av.=5,8 dev.=0,5
<b>Resultatet och ev</b> The results of this questionnaire a	ou for helping to impro atgarder presentera	ove thi I <b>s via S</b>	s cou Stude	rse. ntpo	talen	n. /		– – – – – – – – – – – – – – – – – – –	
7. Professional development									
<sup>7.2)</sup> During the course, I worked with interesting issues.	Strongly disagree	0%	0%	0%	25%	25%	50%	Strongly agree	n=4 av.=5,3 dev.=1
		1	2	3	4		6		
<sup>7.3)</sup> The course was challenging in a stimulating way.	Strongly disagree	0%	0%	0%	0%	50%	50%	Strongly agree	n=4 av.=5,5 dev.=0,6
		1	2	3	4	5	6		
<sup>7.4)</sup> I was able to learn by collaborating and discussing with others.	G Strongly disagree	0%	0%	0%	0%	50%	50%	Strongly agree	n=4 av.=5,5 dev.=0,6
		1	2	3	4	5	6		
<sup>7.5)</sup> I was able to learn by trying out my own ideas.	Strongly disagree	0%	0%	0%	50%	0%	50%	Strongly agree	n=4 av.=5 dev.=1,2
		1	2	3	4	5	6		
<sup>7.6)</sup> I felt togetherness with others during the course.	Strongly disagree	0%	0%	0%	0%	<u>25%</u> ⊢	75%	Strongly agree	n=4 av.=5,8 dev.=0,5
		1	2	3	4	5	6		

			Pr	ofile						
I	Name of the instructor: Victoria	stem- och rymdtekr Barabash interskola	— — — — — —							
	Values used in the profile line: Mean									
1.	Självbedömning Self-assessm	ent								
1.2)	Jag är nöjd med mina insatser under kursen I am satisfied with my efforts during the cours					Instämmer helt/ Strongly agree	n=4	av.=5,3	md=5,5	dev.=1,0
1.3)	Jag har deltagit i kursens alla undervisningsmoment. I have participated in all the teaching and	Instämmer ej/ Strongly disagree				helt/ Strongly agree	n=4	av.=6,0	md=6,0	dev.=0,0
1.4)	Jag har förberett mig inför alla undervisningsmoment. I have prepared myself prior to all teaching al	Instämmer ej/ Strongly nd disagree				Instämmer helt/ Strongly agree	n=3	av.=4,3	md=4,0	dev.=1,5
2.	Kursens mål & innehåll Cours	e aims and cont	tent							
			I			1				
2.3)	Kursens mål har varit tydliga. The intended learning outcomes of the course have been clear.	e Instämmer ej/ Strongly disagree				Instämmer helt/ Strongly agree	n=3	av.=5,3	md=5,0	dev.=0,6
2.4)	Kursens innehåll har bidragit till att uppnå kursplanens mål. The contents of the course have helped me to	Instämmer ej/ Strongly disagree				<b>Instämmer</b> helt/ Strongly agree	n=3	av.=5,7	md=6,0	dev.=0,6
2.5)	Kursplaneringen/studiehandledningen har gett god vägledning. The course planning and the study guide hav	Instämmer ej/ Strongly e disagree				Instämmer helt/ Strongly agree	n=3	av.=5,7	md=6,0	dev.=0,6
3.	Undervisningskvalitet Quality	of teaching								
3.1)	Lärarnas insatser har varit ett stöd i mitt lärande. The teacher's input has supported my learnin	Instāmmer ej/ Strongly g. disagree				Instämmer helt/ Strongly agree	n=4	av.=5,5	md=5,5	dev.=0,6
3.2)	Kursens undervisningstillfällen med teoretis karaktär har varit givande. The teaching and learning activities	k Instämmer ej/ Strongly disagree				Instämmer helt/ Strongly agree	n=4	av.=5,3	md=5,5	dev.=1,0
3.3)	Kursens undervisningstillfällen av laborativ, skapande eller verksamhetsförankrad karaktär (t ex laborationer, exkursioner, VF	Strongly				Instämmer helt/ Strongly agree	n=4	av.=5,5	md=5,5	dev.=0,6
3.4)	Det tekniska stödet för kommunikation (t ex lärplattform, e-mötesverktyg) har fungerat bra.	Instämmer ej/ Strongly disagree				Instämmer helt/ Strongly agree	n=4	av.=5,8	md=6,0	dev.=0,5
4.	Kursmaterial Course materials									
		1	I	1 1		I				
4.1)	Det anvisade kursmaterialet har varit ett stö i mitt lärande (t ex litteratur, laborations- anvisningar, presentationsunderlag).	d Instämmer ej/ Strongly disagree				Instämmer helt/ Strongly agree	n=3	av.=5,7	md=6,0	dev.=0,6
	Examination (om examination	<b>är gjord)</b> Exam	ו (only a	nswer th	nis quest	ion if you have	done the	exam fo	or the	
	purse)									
5.1)	Examinationen har motsvarat kursens mål. The examination was in accordance with the intended learning outcomes of the course.	Instämmer ej/ Strongly disagree				Instämmer helt/Strongly agree	n=3	av.=5,3	md=6,0	dev.=1,2
6.	Helhetsbedömning Overall ass	sessment								
		I	I		I	1				
	Arbetsbelastningen i kursen motsvarar kursens poäng. The workload of the course is appropriate for	Instämmer ej/ Strongly disagree				helt/ Strongly agree	n=3	av.=5,7	md=6,0	dev.=0,6
03.0	4.2023		EvaSy	s Evaluatio	า					Page 4

6.2) 6.3)	Utifrån kursens mål har kravnivån varit tillräckligt hög. Given the aims of the course the level of work Mitt helhetsintryck är att kursen varit bra. My overall impression is that this has been a good course.	Instämmer ej/ Strongly disagree Instämmer ej/ Strongly disagree		Instämmer helt/ Strongly agree Instämmer helt/ Strongly agree	n=4 n=4	av.=5,8 av.=5,8	md=6,0 md=6,0	dev.=0,5 dev.=0,5
7.	Professional development							
7.2)	During the course, I worked with interesting issues.	Strongly		Strongly agree	n=4	av.=5,3	md=5,5	dev.=1,0
7.3)	The course was challenging in a stimulating way.	Strongly	_ <b>  ∳</b>	Strongly agree	n=4	av.=5,5	md=5,5	dev.=0,6
7.4)	I was able to learn by collaborating and discussing with others.	Strongly	- <b> </b> , <b> </b> -	Strongly agree	n=4	av.=5,5	md=5,5	dev.=0,6
7.5)	I was able to learn by trying out my own ideas.	Strongly	-	Strongly agree	n=4	av.=5,0	md=5,0	dev.=1,2
7.6)	I felt togetherness with others during the course.	Strongly	<b>``</b>	Strongly agree	n=4	av.=5,8	md=6,0	dev.=0,5

# **Comments Report**

#### 6. Helhetsbedömning Overall assessment

- <sup>6.4)</sup> Vad har varit bra i kursen? Exemplifiera! What was good about the course? Please give examples.
- All of the activities were good and fun! Maybe more outdoors, but then again the Abisko trip probably would've been sufficient. Especially loved the pizza party and the activities with it!
- Fantastiskt att träffa människor från olika universitet!
- The level of understanding to assimilate the course was appropriate. Even if i didn't have much knowledge about balloons or space in general, it was easy to understand.
- <sup>6.5)</sup> Om du skulle vara lärare nästa gång kursen går, vilka förbättringar skulle du genomföra? If you were to teach the course next time, what improvements would you make?
- Det var mycket att klämma in 3-4 föreläsningar på en dag. Mer pauser åt uppgifterna, eller workshops, hade jag uppskattat.
- I will make more groupwork during courses. It make the course more dynamic. Maybe at the beginning i will provide keywords used in space to all students, for them to understand the basic knowledge with space.
- I'd try to make the lectures less difficult since many weren't in the field required to understand fully. Also, some of the professors didn't talk loud enough and they didn't say anything until everyone eventually got quiet, which probably is a cultural thing, because in my country the lecturer will just start the lecture. And the assignment 1 could've been made like a presentation in front of the class in Kiruna, just to have an idea of who your classmates are!

#### 7. Professional development

- <sup>7.1)</sup> What subject do you currently study in your home university?
- I'm currently working on a laboratory, my research is (text is removed). More generally i am studying biology, ecology and research.
- Physics engineering
- Space sciences
- Systemvetenskap

<ol> <li>Please describe your cultural experience during your mobility. Did you experience any cultural shocks?</li> </ol>	3. What has been the most interesting learning outcome? there were a lot to learn such as: understanding the unique environmental and riferation conditions of the Arctic region and	1. Did the Winter School fit to your expectations?	4. What did you enjoy I What did you enjoy least?	From a scale from 1 /h Would you recommen	d Anv further comments i What is your study field	What is your study leve From a scale from	16
No cubural shocks actually! There were a lot of multidisciplinary teams and we had a lot of fun	how they are changing due to climate change. Also, building international networks and collaborations with other researchers						
cooperating with them and people respected each other for any cultural difference.	and professionals in the Arctic region, which can lead to new research opportunities and collaborations.	It was better then I expected	Working together as a That the winter school is over! :(	5 Yes	Computer Science	PhD	4
It was vere interesting to have an insight in the sweedisch culture. I learnt about Fika	different ohenomens of space weather	It was better than I expected	hurtino for auroras Some of the lectures were very deep into the	4 Yes	It would be creat to he Natural Science	PhD	3
The Sami culture was interesting to learn a bit about. Lots of moose and elk meet consumed. Cars drive a lot with high beams. Student fratemity outrue. But there was no bio difference in culture compared to Germany.	That auroras are not as colorful to the naked eye as pictures	It was as expected	Activities with the other some lactures were a bit dry	5 Yes	Natural Science	Bachelor	3
I was shocked aloo the organizers who was not properied for universal events. We could not po to Alabia bucasais of the bad washer conditions and we change you point sections of the washer or conditions of the section of the section of the washer of the three was no plan B at al, so we are basically just atting around for analy adv, So B it Is more than the point washer and the section of the washer. But note would repect the three would be a plan B. I appreciated the three you do b a plan B. I appreciated the three would be a plan B. I appreciated the three you do b a plan B. I appreciated the three you do b a plan B. I would repect the three you do b a plan B. I appreciated the three you do b a plan B. I appreciated the three you do b a plan B. I washer and the plan B. I and B. I washer and the plan B. I and B. I appreciated the three you do b a plan B. I appreciated the plan B. I app							
town of Kiruna would have been a great alternativ. a melting pot of different cultures that were happy to	The diversity of fields needed in the space research living in a community and working together trying to bring each	My expectations were not met	Visiting the labs at the : The stress during the product innovation work	a 3 Not sure	I am verv thankful for ti Natural Science	PhD	4
meet and collide, giving birth to a very nice mixed atmosphere Fantastique d'échanger avec d'autres étudiants	other our different perspectives and specialties	It was better than I expected	meeting people and dis too many space lectures	5 Yes	Thank you for the expe Humanities/Social Scie	Master	3
europeens oui étudient des choses différentes no cultural schocks but i was surprised to eat at 6pm30		It was better than I expected	La nuit dans lice hotel Nothing	5 Yes	Other	Master	4
for instance During this mobility with Universeit, I was able to	the link between space and arctic	It was better then I expected	meeting European stud when the trip to Abisko was cancelled	5 Yes	Thank you very much fi Engineering	Master	5
exchange with many students and people of different nationalities, it was very interesting to discover different ways of life and cultures.	I loved learning more about the aurora borealis, the atmosphere and visiting the laboratories and the earange space center.	It was better then I expected	What I liked the most v Perhaps the group work when we had to imag	g 5 Yes	Thank you very much fi Engineering	Master	5
No shocks but I discovered so many new cultures Not really.	Probably language learned through all the international students Northern lights	It was better than I expected It was better than I expected	Lectures on Space we The mine visit The snow, the oncur, If The few time that we had to develop our idea	5 Yes 5 Yes	Engineering Other	Master Master	5 4
The lack of use of cash always surprises me, but the time that the shops are open, even more surprising	Learning more about the cultural changes from it	It was better then I expected	Gettino to trv Ice Hotel Not being able to go to Abisko	4 Yes	Engineering	Master	4
I didn't experience any shocks but it was really fun to meet people from different cultures.	Project space innovation and intercultural communication New friends	It was as expected It was as expected	The pizza party with lin All of the lab guidings (the idea was good but Some of the people. The crammad together lectures.	5 Yes	Very thankful for the or Engineering In general I'm more into Computer Science	Bachelor Bachelor	5
No There was no cultural shock because I have been in Sweden for a while and I could understand how the	New triends. Having some knowledge about the atmospheric situation in the	If was as expected	Some of the people. The crammed together actures.	5 Yes	In general I'm more inti Computer Science	Bachelor	3
svatem works. No. not really	olar recion and processes of brand development. Understanding Polar weather phenomena	It was better then I expected It was as expected	Group dynamics and o Nothing that I can remember The los hotel The tour of the mine. Wish it was more inform	4 Yes 5 Yes	Humanities/Social Science	Master PhD	5 4
Food culture, different test, the energy they had, social skills. lanouace I did. e.o. reparding fikka tradition and its consistence.	To make new friends	It was as expected	Workshoo The bad weather	5 Yes	Engineering	Master	4
relations between constructs and advices or general atticuts towards obtained in and attie tools regulators requiring latits safety and i was really impressed by the rules and contected to is paced on mixed parents sending somewhere latits worthout any adult (e.g. to the swimming could fixed) and spacing time together with other nations and send with adult haltowards. I dhi't experienced any log channal shock. I liked that everyone their toget how and other and was open	Expanding knowledge on snowlice and ideas for experiments basednen that knowledge For me the most interesting part were the lectures on the	It was as expected	Aurora on the last day. That I was sick during my stay :(	5 Yes	It was really great, kee Engineering	PhD	5
minded, even if some refered to the "known" sherotypes.	atmospheric and at the same time (due to luck/rough luck) seeing them applicable on the sky. The potential for accelerating the European space community	It was as expected	intercultural arous, cop timing with lectures and excursions; mixing the	e 5 Yes	Thank you very much! Natural Science	Bachelor	4
I learned a lot about other cultures but was not "shocked" by them :)	with more cross-cultural / international exchange at the student level.	It was as expected	Outdoor experiential lie. Very long indoor classroom sessions	5 Yes	Thank you very much! Other	Master	5
no cultural shocks but I was surprived that for instance in Steuden it was normal to have dimen at 6PM. However, it was ny first shock for making paople from different countries (if dicht do an ENASMUS). The argenience was very good and I have really enjoyed it I No.	Cultural differences New friends.	It was better than I expected It was better than I expected It was better than I expected	I really onloy the fact th It was maybe the day with the Abisko trio whi The lice hoted The high interactivo of ev Lack of sizes.	ii 5 Yes 5 Yes 4 Yes	Keep up the good plan Humanities/Social Scie		4 4 3
I have yet to find a Swede who doesn't speak English	The Business and Cultural Workshops taught me a lot in terms of soft skills in a multicultural emironment	It was better then I expected	The northern lights Not going to Abiskol	5 Yes	Stay awasome Engineering	Master	4

Did you enjoy the different lectures?