



# UNIS Learning Forum

**22-24 October 2019**

**Place: Lassegrotta (UNIS)**

*UNIS welcome you to the 6th Learning Forum Tuesday 22<sup>nd</sup> to Thursday 24<sup>th</sup> of October 2019.*

**What is Learning Forum?** *The Learning Forum is the largest annual event where the entire UNIS staff can share and gain knowledge regarding research-based education, course construction, alignment and development.*

*The 2019 Learning Forum will especially focus on **collegial sharing practice** with 12 of your UNIS colleagues sharing, raising questions and discussing a broad spectrum of different methods to increase learning or challenges to learning at UNIS. We have invited 2 external guest lecturers which will provide us with exciting ideas on developing higher education. We will also have two panel discussions on I) guest lecturers and II) cooperation with the logistics unit.*

*This year a group of students (2 bachelor and 2 master students from each scientific department) are invited to attend the plenum sessions. There will also be a special workshop for students focusing on group dynamics in collaborative work.*

**Lunch** will be served for all in the UNIS canteen Tuesday 22<sup>nd</sup> and Wednesday 23<sup>rd</sup>.

*We look forward to this event and highly appreciate all contributions!*

## **Learning outcome:**

*After the Learning Forum 2019, we as participants will:*

- *have shared good teaching practice with colleagues*
- *have learned new methods for enhancing quality, possibly without creating more work*
- *have acquired knowledge on techniques and ideas that contribute to good teaching*
- *have gained motivation and inspiration to further develop their pedagogical expertise within teaching and learning*
- *have improved knowledge about the educational quality work performed at UNIS and challenges related to field-based education at UNIS.*

## PROGRAM

### Learning Forum 2019: October 22-24

#### Day 1 – October 22:

09:00 – 09:15 **Opening and Welcome** in Lassegrotta - Harald Ellingsen, Managing director of UNIS

09:15 – 10:00 **Lecture:** *Overview of educational challenges at UNIS* - Hanne H. Christiansen, Vice Dean of Education and Ane Hammervoll Bjørsvik, Head of Academic Affairs Department.

10:00 – 10:15 *Break*

10:15 – 11:00 **Plenum session** with UNIS log/tech staff sharing some of their experiences on challenges related to field excursions and fieldworks with students

11:00 – 11:15 *Break*

11:15 – 12:15 **Group sharing sessions I** (6 different themes) – descriptions below

12:15 – 13:00 *Lunch will be served for everybody at the UNIS cantina*

13:00 – 13:30 **Lecture:** *FieldPass – A new inter-departmental UNIS project funded by Diku (Norwegian Agency for International Cooperation and Quality Enhancement in Higher Education)* v. Pernille Bronken Eidesen, Project coordinator.

13:30 – 14:30 **Group sharing sessions II** (5 different themes) – descriptions below

14:30 – 14:45 *Break*

14:45 – 15:45 **Lecture:** “Does higher education need to control a fixed curriculum” with Oddrun Samdal, Professor and Vice-Rector for Education at UiB .

## Day 2 – October 23:

09:00 – 10:00 **Lecture:** “The Teaching Trick - how to improve student learning without spending more time teaching” with Kristina Edström, Associate Professor in *Engineering Education Development* at KTH Royal Institute of Technology.

10:00 – 10:15 *Break*

10:15 – 14:30 **Workshop for Log/Tech Department:**” Rethinking our basic security course, summer and winter” with Ivar Nordmo

10:15 – 11:45 **Workshops** (all participants choose one)  
1. *The Teaching Trick* by Kristina Edström,  
2. *Interdisciplinary Education at UNIS* by Hanne H. Christiansen  
3. *Field Learning and Assessment* by Pernille B. Eidesen, Noora Partamies, Jørgen Haugvaldstad & Tina Dahl

11:45 – 12:30 *Lunch – will be served for everybody at the UNIS cantina*

12:30 – 13:00 **News from bioCEED and iEarth** - Pernille Bronken Eidesen, Deputy leader of bioCEED and Hanne H. Christiansen, Deputy leader iEarth.

13:00 – 14:30 **Workshops** (all participants choose one)  
1. *The Teaching Trick* by Kristina Edström,  
2. *Interdisciplinary Education at UNIS* by Hanne H. Christiansen  
3. *Field Learning and Assessment* by Pernille B. Eidesen, Noora Partamies, Jørgen Haugvaldstad & Tina Dahl.

14:30 – 14:45 *Break*

14:45 – 15:45 **Discussion on the use of guest lecturers**  
We will briefly review the concept and use of guest lecturers at UNIS, and discuss the advantages and challenges related to optimizing the use of guest lectures to enhance course quality, focusing on alignment and learning outcomes as seen from the course responsible.

15:45 – 16:00 **Sum up:** Vice Dean of Education, Hanne H. Christiansen  
Including oral evaluation – a written evaluation follows

## Day 3 – October 24:

09:00 – 12:00 **Departmental meetings** (rooms will be announced during Learning Forum).  
Each department can decide the topic of the meetings, but is requested to discuss the outcome of Learning Forum 2019 as a part of their meeting.

*No lunch served, the departments may organize something themselves.*

## External presenters:

### 1. Oddrun Samdal

Title of lecture: *“Does higher education need to control a fixed curriculum”*

In higher education the main aim is students' learning regulated through formulation of learning objectives. To this end the most important approach is students' investment in their own learning guided by the learning objectives. Knowing that students learn in different ways and have different interests, do we need a fixed curriculum for students to meet the learning objectives? Or will students learn more and better if they themselves identify their texts for learning? Following from this question, how do we best assess if students have reached the learning objectives?



Professor Oddrun Samdal is the Vice-Rector for Education at the University of Bergen for the period 2017-2021. The Vice-Rector for Education has a particular responsibility for the development of the University's educational activity, and chairs both the University Education Committee, the programme for digital solutions, DigUiB, and every other year the Learning Environment Committee (LMU). Oddrun Samdal holds a higher teaching qualification and is Professor of Health Promotion and Health Psychology. She was previously Head of Department and Vice-Dean for Education at the Faculty of Psychology and was elected vice rector for her first period in 2013. She also holds a position as a chairman in the board of bioCEED.

### 2. Kristina Edström

Title of lecture: *“The Teaching Trick - how to improve student learning without spending more time teaching”*

Title of workshop: *“The Teaching Trick - how to improve student learning without spending more time teaching”*



Kristina Edström (kristina@kth.se) is Associate Professor in *Engineering Education Development* at KTH Royal Institute of Technology. Since 1997 she leads and participates in educational development activities at KTH, in Sweden and internationally. She serves on the international CDIO Council and leads the research track in the annual international CDIO conference. Kristina was awarded the KTH Prize for Outstanding Achievements in Education in 2004 and elected lifetime honorary member of the KTH Student Union in 2009. Kristina has a M.Sc. in Engineering from Chalmers, and a PhD in Technology and Learning from KTH. Her research takes a critical perspective on the *why*, *what* and *how* of engineering education development. Since 2018 she is the Editor-in-Chief of the *European Journal of Engineering Education*.

### 3. Ivar Nordmo

Title of workshop (workshop for Tech and Logistics): *“Rethinking our basic security course, summer and winter”*



Ivar Nordmo is Associate Professor in University Pedagogy at the Department of Education, UiB. He has 25 years of experience in various parts of Faculty Development as course designer and teacher, as consultant on program design and teaching & learning for various departments and the central administration at UiB, and for the last 10 years as a researcher mainly interested in how to best design for and facilitate learning processes, including the design of learning spaces. He is part of the iEarth team and is involved in the merit system for excellent teaching in Bergen. Nordmo is director of the Program of University pedagogy and Faculty Development at UiB, and holds an adjunction position at UNIS where he is responsible for the pedagogical training program.

### Collegial sharing sessions Tuesday:

*All sharing sessions takes place on Tuesday. The sharing session is organized as one hour long session with an introduction to the theme and an around the table discussion /feedback from the participants. Participants signs in on two sessions, one before lunch and one after lunch. In forefront of LF the participants will receive an email with a link to sign in and choose which sharing sessions they would like to attend.*

### Tuesday 1115-1215:

- 1) Title:** Using a focus group interview to learn from your students  
**Lead by:** Mikko Syrjäsuo  
**Where:** Festningen  
**Description:** The UNIS course Radar diagnostics of space plasma (MSc/PhD) conducts fieldwork at the EISCAT Svalbard Radar. The students are divided into small groups and each group is allocated a few hours of “radar time” to conduct their small-scale study about the physical processes in the upper atmosphere. Controlling an actual research radar for real is something the majority of the students consider the highlight of the fieldwork, if not the whole course. At the same time, waiting for their turn at the Big Radar is the least favorite activity and does not improve learning. In 2017, we introduced a small side project for the fieldwork to fully engage all students. The ones not operating EISCAT would be building a small radar themselves! The basic idea was to strengthen the understanding of radar fundamentals. After the introduction of this hands-on part to the fieldwork, the first development round was based on the student feedback collected routinely for all UNIS courses. In 2018, a

more in-depth assessment using a focus group interview was conducted at the end of the semester, which then resulted in carefully considered changes in the implementation of the learning activity for 2019. The ideas and comments from the students helped in adjusting the practical details and, not insignificantly, reduced the teaching load and stress during the fieldwork.

The sharing session will be carried out as a focus group interview on the topic “The students are talking – how are you listening?”

- 2) Title:** How to integrate teaching resources and students into cutting edge research  
**Lead by:** Helena Reinardy  
**Where:** Library  
**Description:** Many scientists, PIs, and researchers feel a conflict between teaching and research, both demanding time and much attention. From a research perspective, I am interested in using teaching, resources, and courses/activities to achieve real research, elevating student research projects up to publishable-level science, and teaching by doing research with students. This approach can be highly inspiring to students, and a way for researchers to combine teaching and research and overcome the conflicting demands.
- 3) Title:** The “Info lecture” given by logistics: How can we improve?  
**Lead by:** Charlotte Sandmo & Marcos Porcires  
**Where:** Skansebukta  
**Description:** The “info lecture” is the very first lecture that most students get when they start their studies at UNIS. This lecture is held by the logistics department and focuses on safety, hazards and risk mitigation during field activities on Svalbard. The lecture might seem a bit too overwhelming for newly arrived students and we would like feedback and discuss ideas on how we could reorganize the contents and how we communicate them.
- 4) Title:** Experimenting to support learning process  
**Lead by:** Aga Nowak  
**Where:** OPS  
**Description:** In this session we will discuss the importance of experimentation for improvement of the learning process and increase of the learning gain.  
The experimentation refers to:

  1. teaching practices during lectures, workshops and field classes
  2. design of group work either for laboratory or field activities
  3. support of students throughout the course

- 5) **Title:** Lessons learned from organising fieldwork at unis  
**Lead by:** Marius Jonassen  
**Where:** van Keulen  
**Description:** Organising fieldwork for courses at UNIS poses many challenges and in this session I will share and invite for discussion of my experience with some of these. Topics that I will cover include: How to minimize dead time and involve all students in useful learning activities in the field and how to facilitate information flow during the fieldwork so that everyone knows what is happening at what time. I will also talk about how to connect theory taught in class with data collection in the field and how to use both simple (bicycles) and advanced platforms (drones) for collecting data.
- 6) **Title:** Virtual Reality – a class room tool or attention gimmick?  
**Lead by:** Peter Betlem  
**Where:** Templet  
**Description:** For a long time Virtual Field Trips have been promoted as an invaluable tool to visit otherwise inaccessible places. The rise of Virtual Reality (VR) is the natural extension of idea: students are now able to literally break the boundary between virtual and reality, and fully immerse themselves while walking through a digital reconstruction. Within the department of Arctic Geology, Kim Senger has experimented with the use of VR (using an HTC Vive headset) as a tool for PR, academia and teaching. While incredibly useful to get and focus one's attention, limitations in current software implementations remain a challenge in bringing out the technique's full potential. Here we provide a short overview of our use and summarise a brief list of tips and tricks that help adding VR as a tool to one's teaching toolkit.

**Tuesday 1330-1430:**

- 7) **Title:** Planning for successful fieldwork at UNIS  
**Lead by:** Holt Hancock  
**Where:** Library  
**Description:** UNIS places an emphasis on offering experiential learning opportunities in Svalbard's unique environmental setting. Field activities explicitly contribute to stated learning objectives for many UNIS courses and can, when properly executed, serve as a highlight and capstone activity for students. Implementing successful fieldwork into an UNIS course requires a well-defined and well-communicated plan between multiple actors including, but not limited to, the course-responsible, guest lecturers, Logistics staff, Administration, and (most importantly) the students. In this

session, we will encourage a dialog between the various actors involved in organizing and planning fieldwork at UNIS to help answer the question “How do we best plan fieldwork at UNIS?” With input from scientific, logistic, and administrative staff in addition to student evaluations of recent courses we can discuss different approaches to planning successful fieldwork here at UNIS.

**8) Title:** Combined field and digital tools in geological education

**Lead by:** Snorre Olaussen

**Where:** Festningen

**Description:** So far no modern tools can replace the importance of geological field work and excursions in educating students in geology. Outcrops can demonstrate geological and physical processes in four dimensions in both space and time. Furthermore, students get an impression of the scale and architecture of structural elements, which is not feasible behind a computer screen. The challenge of teaching in the field in Svalbard can be subdivided into i) heavy logistic preparation ii) focus on transportation on snowmobiles or small boats iii) safety concern especially in steep hills; rock falls/snow avalanche and harsh climate and iv) sometimes *extremely* variable background of students and v) teaching with attention from students in a sometimes overwhelming exotic nature.

One of the main challenges in geological teaching in field is to awake students for curiosity and learn observation skills; i.e. *You see, but you do not observe*, (Sherlock Holmes, C. Doyle, In a scandal in Bohemia). The teaching of field geology can now be further developed by help of modern digital tools. Combining traditionally geological field work (e.g. logging, mapping, drawing sketches, use of compass and GPS) with emerging digital educational tools can bring students to next level in understanding dimensions and scale in geology, and earth science generally. Digitalizing of the visited locality through ground or drone-based photographs and videos, for instance, can be transferred to virtual outcrops. Students can thereby prepare for their fieldwork, and use the acquired or provided virtual outcrop models to complement their quantitative post-field work analysis. Needless to say, touching, smelling and sometimes even tasting the rocks can never be substituted by modern tools, and actual hands-on fieldwork is critical in educating the next generation of Arctic geologists.

**9) Title:** Assessment in MSc- and PhD-level courses: writing a research proposal as home exam

**Lead by:** Øystein Varpe

**Where:** van Keulen



**Description:** Assessment for grading is challenging and there are many ways to do this. In AB-338/838 I tried out an end-of-course exam that aimed to stimulate the students to show what they have learnt by writing a research proposal. They were particularly challenged to provide a solid background of the field and the relevant theory, identify the research frontier, formulate research questions, and select well suited approaches to answer the research questions. I will share with you how I did it, including how I prepared the students for the exam. I hope you are keen to discuss these experiences, share own related experiences, and perhaps also discuss assessment and exams more broadly.

**10) Title:** Safety Courses as a part of the student learning experience at UNIS – Bridging the gap between technicians and academic staff

**Lead by:** Sara Mollie Cohen

**Where:** Templet

**Description:** The technicians at UNIS administer a wide range of safety courses to all new students and staff at UNIS, but there is little feedback from professors as to what is actually beneficial to students and staff and what is lacking when out in the field. I will give an overview of what courses we offer from the logistics department, my philosophy on teaching students and staff, and how I see this play out in the field when I join on field excursions. I would like to encourage a discussion on getting feedback from staff on what works and what is missing, as well as address the safety courses from a pedagogical viewpoint.

**11) Title:** Using scientific literature in the classroom

**Lead by:** Emma Bland

**Where:** OPS

**Description:** In this session we will discuss ways in which peer-reviewed scientific literature can be used in bachelor- and master/PhD- level courses to achieve a range of learning outcomes. Learning activities conducted during two Arctic Geophysics courses will be presented as a starting point for the discussion. Participants will be encouraged to share their own thoughts and experiences on effective use of scientific literature to promote student learning. Note: this session is a repeat of a similar session held at the 2018 Learning Forum.

## **Workshops Wednesday:**

*All workshops for staff take place on Wednesday. Workshop # 1-3 last for 1.5 hours. Workshop # 4 (only for Tech and Logistics) last for 4.5 hours. Participants (not in the Tech Logistic Department) can choose two workshops (1-3). In forefront of LF the participants will receive an email with a link to sign in and choose which workshop they would like to attend. Notice that the workshops might require some preparation from the participants in forefront.*

- 1) Title:** “The Teaching Trick - how to improve student learning without spending more time teaching”

**Lead by:** Kristina Edström

**Where:** Kapp Wijk

**Description:** The workshop is a continuation from the keynote. A few more examples will add to the toolbox of practical principles. Participants will discuss potential for improvements, using the powerful way to see teaching – from a learning perspective. Finally we tackle the question: Are there any barriers that keep us doing things in our courses that lead to little learning?

- 2) Title:** “Interdisciplinary Education at UNIS“

**Lead by:** Hanne H. Christiansen

**Where:** Festningen

**Description:** The new UNIS strategy focuses on interdisciplinarity as it is also in focus at most other universities. Participants will discuss what is unique for UNIS and how good are we in developing our advantages in our courses, and what the potentials are for using these in an interdisciplinary way? How far have we come already and how do we develop this the best way in the future?

- 3) Title:** “Course alignment and field teaching“

**Lead by:** Pernille Bronken Eidesen, Noora Partamies, Jørgen Haugvaldstad and Tina Dahl

**Where:** Templet

**Description:** Course alignment is crucial for successful learning in field courses. In short, alignment means that the learning outcomes and learning activities of the course directly support course assessments. However, assessing practical skills and general competences that are acquired during field-based activities can be challenging. In this workshop we will identify and explore some of the challenges and possibilities connected to assessing field related learning outcomes. The goal is to 1) identify (based on participants own course description) which learning outcomes are connected to field teaching and how these are assessed; 2) identify skills and competences that are not described as specific learning outcomes, but which

participants see that the students nevertheless acquire through field work; and 3) discuss various assessment tools for field teaching (both for defined learning outcomes and non-described learning outcomes). What opportunities exist, what do participants need to be able to assess these?

**4) Title:** “Rethinking our basic security course, summer and winter”

**Lead by:** Ivar Nordmo

**Where:** OPS

**Description:** Together we will discuss and possibly redesign our basic security course based on exploring some fundamental questions: What themes need to be in these courses? What are the expected learning outcomes? How do we organize and execute the teaching and learning activities to ensure these learning outcomes for all participants? The mood of this workshop is to be open to rethink what we normally do and explore new possibilities.