

Developing evidence-based mentoring for better STEM work placements

# Creating better work placements by understanding mentor challenges and developing supporting digital resources

Kristin Holtermann, Jonathan Soulé, Sehoia Cotner,  
University of Bergen

DEVELOP: Developing evidence-based mentoring for better STEM work placements



# DEVELOP timeline

## Work Package 1. Needs Assessment

Conduct focus-groups of students and interview hosts at on-site meetings in Bergen, Oslo, and Tromsø

2022

2023

2024

## Work Package 2. Develop modules

Construct first bioHOST modules to pilot with Fall '23 cohort of hosts and students

## Work Package 3. Assess modules

First and second cohort student focus groups and host interviews, revise modules based on feedback

## Dissemination

Revised modules hosted and distributed widely, presentations, manuscripts on process, utility and assessment



The project DEVELOP is funded by



# DEVELOP team

- Project leader Sehoya Cotner (UIB)
- Gaute Velle (NORCE)
- Jonathan Soulé, Kristin Holtermann, Lucas Jenø, Kjerstin Nilsen Nøkling, Niklas Didrik Hellum (UiB)
- Iver Martens, Helge Alexander Vokt (UiT)
- Sanne Boessenkool, Benjamin Dyhre (UiO)
- Gro van der Meeren (HI)
- Kelly Lane, Ariel Steele, Joel Schneider (University of Minnesota)
- Team of student-workers: Susanne Zazzera, (UiB), Emma Falkeid Eriksen (UiO), Truls Aaby (UiT)

Project web page: <https://dvlp.w.uib.no/>



The project  
DEVELOP is  
funded by



# Work placement in disciplin-based education

- BIO298 –  
Yrkespraksis i biologi
- BIOS3050 – Arbeidspraksis  
i biovitenskap
- GEO-2013 – Geopraksis





# Focus group interviews

- Share your general experience as a workplace host.
- What has worked well?
- What could be better, for you, about this experience?
- Complete this sentence: one thing that would help me be a better supervisor is....

# Theme: Information flow

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- **Information about student skills and background**
  - «I wish I knew more about the students' background»
  - «(...) know more about the students and what they can *do*, because many of the tasks we would like them to preform, we cannot train them to do that *now* because that would take too much time».
- **Feedback to WP mentor [about student experience]**
  - «It would be nice with some general feedback from you [the university]. Not that you should say «the student said this and that», but we could get something like, were they satisfied? Was there anything that did not work for them? Was there anything they felt was positive?»

# Theme: Practical challenges

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- **Availability of workspace for students**
  - «We do not have an office for [the students], so we made a meeting room available. This is not ideal, and we would like to change this»
- **Course structure limiting practice**
  - «Our field work isn't going year-round, so that means the timings [of the course] sometimes don't line up very well. (...) autumn is usually quite quiet, so [the student] ended up doing a lot of lab work rather than field work»
- **Contact person**
  - «The contact person isn't necessarily the person who has the most contact with the students»

# Theme: General concerns and observations

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- **Repetitive work:**
  - “We worry that maybe the training is a little bit too repetitive, that they’ll spend their entire 150 hours sort of doing the same [thing]”
- **Structuring the student practice**
  - «So there I think we can do better, and have more structure for "when you are here", "how many hours have you worked", and then, you know, let it be up to the student.»
- **Host skills required to train students**
  - “Some of our researchers might not have a pedagogical background, so, it might not be that they necessarily know how to supervise students very well”



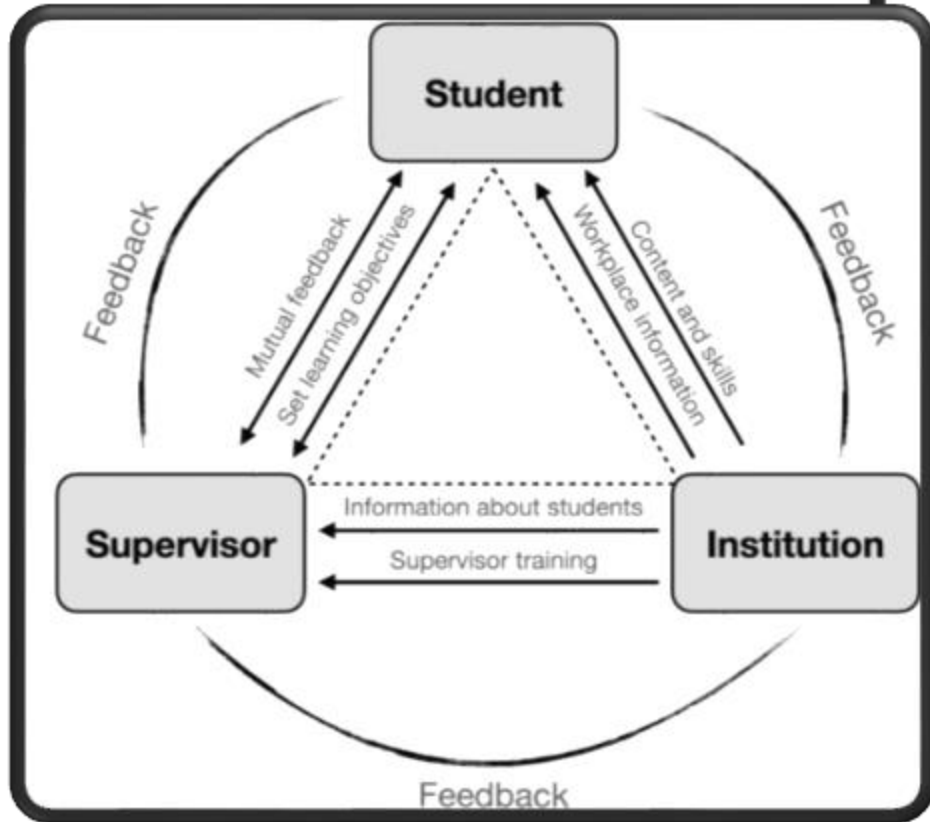


Turning  
research into  
action

- Manuscript
- Presentations
- New surveys
  
- Modules



# Manuscript:



## Creating better work placements by understanding mentor challenges: findings from a series of focus groups

*Joel R. Schneider<sup>1</sup>*

*Truls Aaby<sup>2</sup>*

*Sanne Boessenkool<sup>3</sup>*

*Emma Falkeid Eriksen<sup>3</sup>*

*Kristin Holtermann<sup>4</sup>*

*Iver Martens<sup>2</sup>*

*Jonathan Soulé<sup>4</sup>*

*Ariel Steele<sup>1</sup>*

*Susanne Zazzera<sup>4</sup>*

*Gro I. van der Meeren<sup>5</sup>*

*Gaute Velle<sup>6</sup>*

*\*Sehoya Cotner<sup>1,4,7</sup>*

*A. Kelly Lane<sup>1</sup>*

1. Department of Biology Teaching and Learning, University of Minnesota
2. Department of Geosciences, UiT - The Arctic University of Norway
3. Centre for ecological and Evolutionary Synthesis, Department of Biosciences, University of Oslo, Norway
4. Department of Biological Sciences, University of Bergen, Norway
5. Institute of Marine Research, Austevoll Research Station, Norway
6. Norwegian Research Center
7. STEM Education Research Center, University of Bergen, Norway

\*corresponding: [sehoya.cotner@uib.no](mailto:sehoya.cotner@uib.no)

*In review*

# DEVELOP

## From interviews to actions

The hosts are unsure what what is expected from them beyond providing internship work tasks.

The hosts address clarification of mentorship roles to ensure consistent expectations and provide a sense of security for students

The hosts discuss recruitment challenges and propose a standardized project description template for consistent information flow and fair choice for the students

**Module:** Formal requirements for the internship company and the student. Includes contract, tips for the first meeting, and confidentiality agreement.

**Module:** Health, safety and environment (HSE)  
Includes information about insurance liability, HSE procedures, and required emergency contacts

**Module:** Competence mapping and clarification of expectations. Including template for tripartite agreement between the company, university and student.

Also includes template for project description to be written by the host. Also includes information about the students' motivation letters and CVs, as well as clarifications on financial matters.

and help students overcome challenges.  
They also discuss how reflection notes can be used to facilitate conversation and improve the internship for future students



The reflection notes work really well!

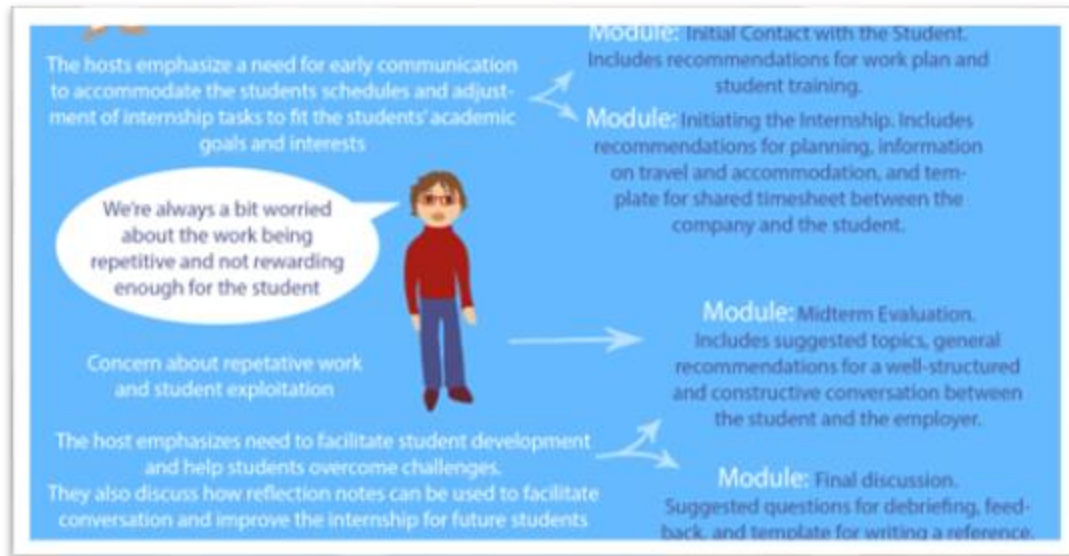
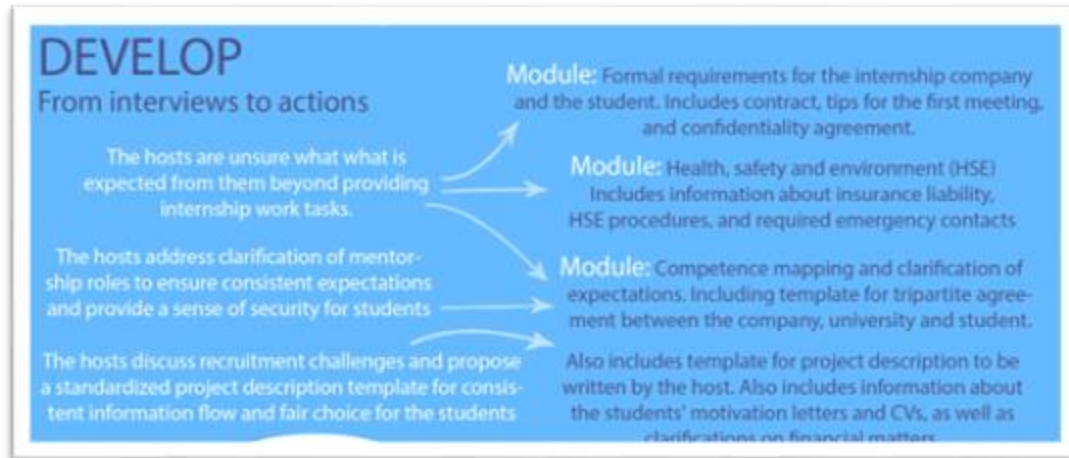
The hosts request guidance in writing good references for the students

The hosts express concern that the contact person may not have enough pedagogical experience to take on an intern

**Module:** Final discussion.  
Suggested questions for debriefing, feedback, and template for writing a reference.

**Module:** Mentor Training. Includes information on building a good relationship with the student, creating a safe work environment, training, and motivation.

# Brainstorming

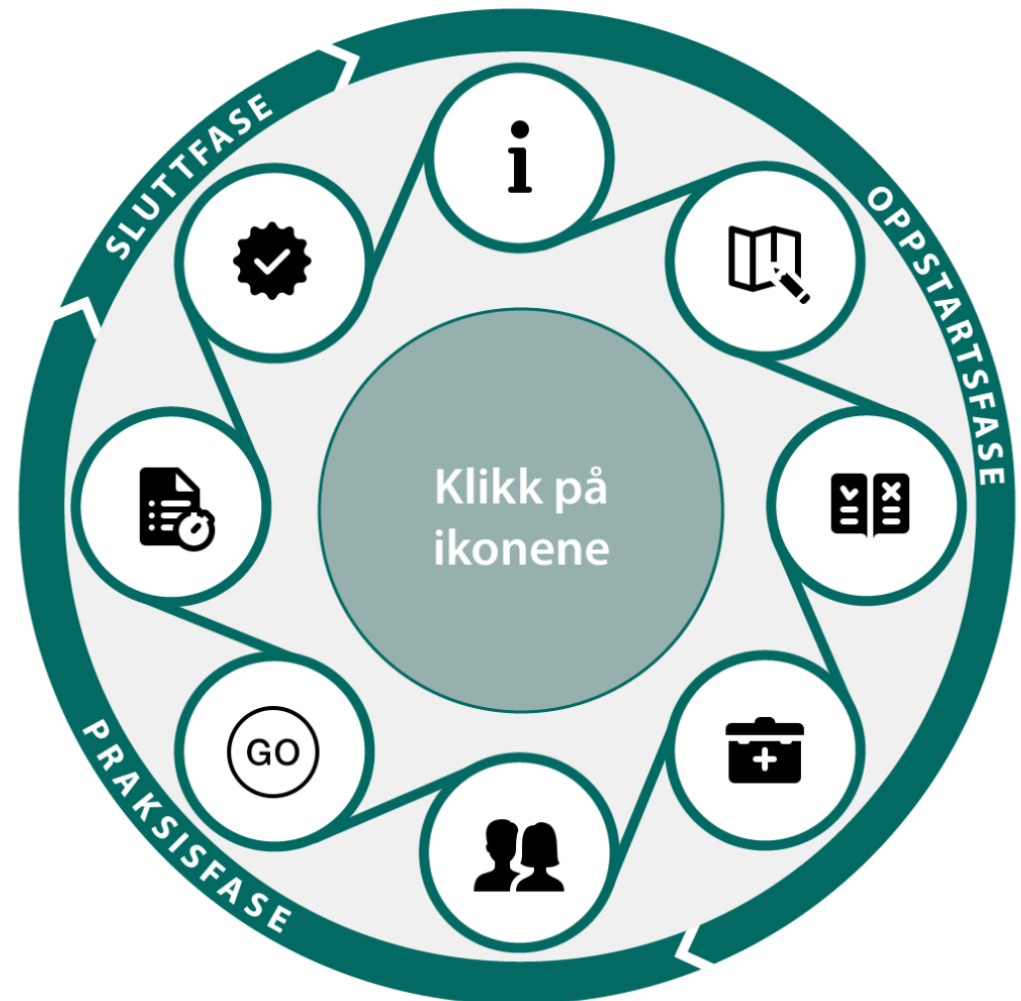


## MODULES:

- Competence mapping
- Clarification of expectation
- Administrative support
- Pedagogical approach to mentoring
- Documents, certificates
- Routines, HSE, insurance
- ...

# Reinventing The Wheel

- Time Wheel
  - Initial phase (oppstartsfase)
  - Work Practice (praksisfase)
  - Concluding phase (sluttfase)



# Accessing the modules



## Kompetansekartlegging og forventningsavklaring

Kompetansekartlegging og forventningsavklaring skal bidra til at studentene og praksisvertene har realistiske forventninger til praksisperioden. Det viktigste bidraget til forventningsavklaring er likevel at praksisvert og student har en god uformell dialog i oppstartsfasen og i praksisperioden.

### Prosjektbeskrivelsen -

Denne gir informasjon om din praksisbedrift og hvilke oppgaver som studenten kan forvente å utføre i løpet av praksisperioden. Beskrivelsen av oppgaver kan enten være detaljert eller mer generisk, avhengig av din bedrift sine behov. Praksisvert kan stille krav til forkunnskaper. Dette må opplyses i informasjonsskrivet. [Klikk her for mer informasjon](#). Studentene får tilgang til beskrivelser fra alle aktuelle praksisverter.



### Motivasjonsbrev +

### C.V. +

### Forventningsavklaring & målsettinger mellom universitetet og bedriften +

### Forventningsavklaring & målsettinger mellom mentoren/bedriften og studenten +

### Økonomi +

# Accessing the modules



## Første kontakt med studenten

Praksisvert og student har første kontakt så snart som mulig etter at studenten har blitt tildelt praksisvert. Erfaring tilsier at det er lurt å avtale et møte og starte så snart som mulig.

Ta kontakt med studenten +

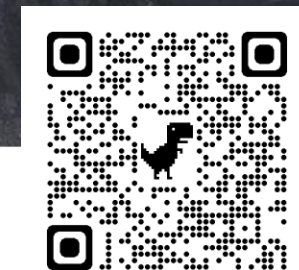
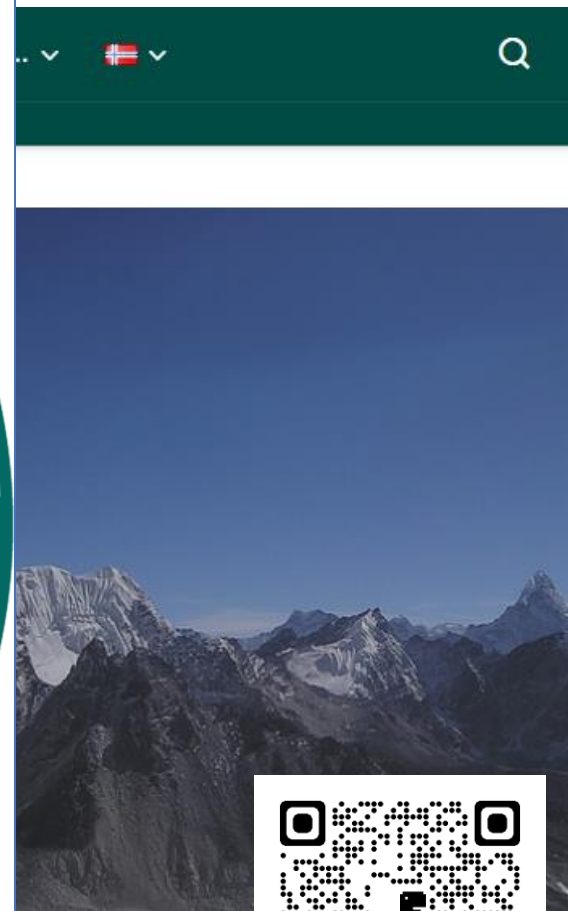
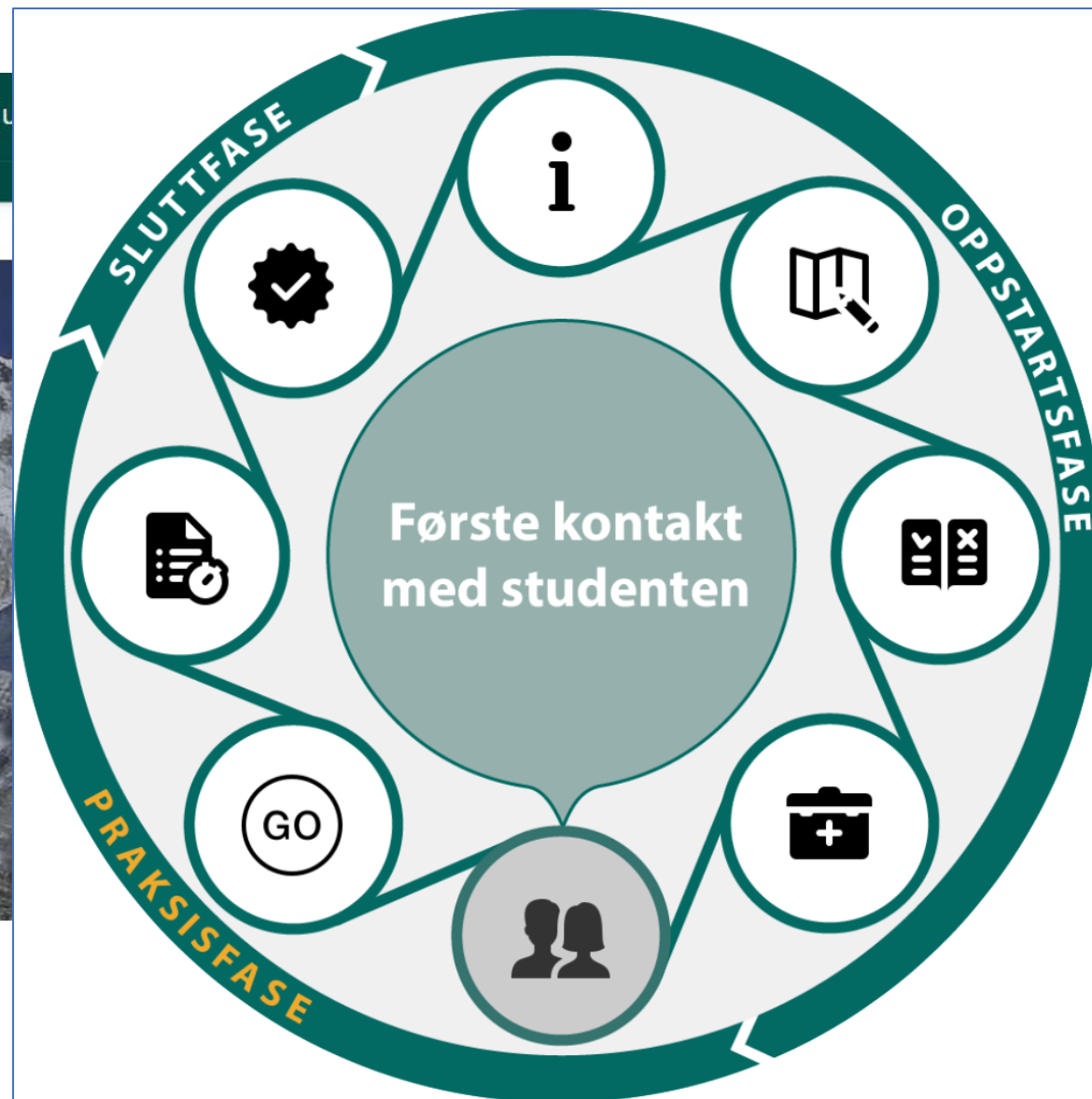
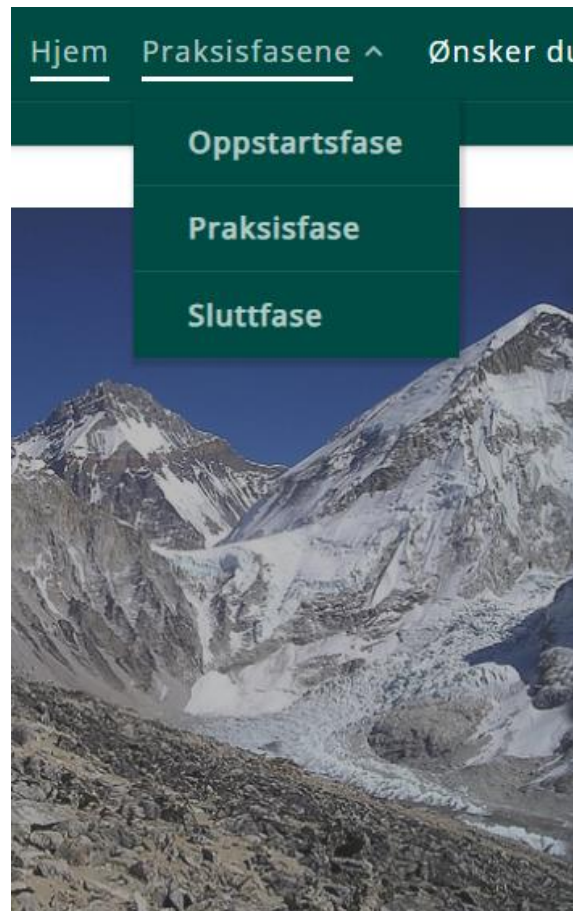
Første besøk i bedriften +

Etablere en arbeidsplan +

Opplæring +



# praksisveileder.no





# Additional modules

Lyst å motta en student i praksis?

[Klikk her](#)

Veiledertrening

[Klikk her](#)

Administrativ Støtte

[Klikk her](#)

# Our courses and student blogs

Praksiskurs tilknyttet denne nettsiden



Våre praksiskurs

**BIO298 Yrkespraksis i  
biologi**

Studentblogger

**Biologi praksis UiB**



Våre praksiskurs

**BIOS3050  
Arbeidspraksis i  
biovitenskap**

Studentblogger

**Biopraksis**



Våre praksiskurs

**GEO-2013  
Geopraksis**

Studentblogger

**Geopraksis**

# Learn more about DEVELOP

- Project homepage:  
<https://dvlp.w.uib.no/>
- Modules and resources:  
<https://praksisveileder.no/>



- What would you expect to find on such a page?
- How would this page help you in developing a practice course?
- Ideas for extra modules?

- Think (30 seconds)
- Pair (2 minutes)
- Share!

- Find us at [dvlp.w.uib.no](http://dvlp.w.uib.no)

