



Department of Ecology and Environmental Sciences

Schedule - Arctic Ecosystems 2024

Date, updated schedule 2024-06-10

## Course organizers:

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## Other teachers:

Judith Sameel JS judith.sameel@umu.se  
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Tim Horstkotte TH  
Emily Pickering Pedersen EPP  
Niklas Rakos/Erik Lundir ICOS  
Johan Olofsson JO  
Jan Dietrich JD  
Karl Heuchel KH

| Day | Date   | Time       | Type        |                                                                                                 | Location | Teacher        |
|-----|--------|------------|-------------|-------------------------------------------------------------------------------------------------|----------|----------------|
| Mo  | 02-sep |            |             | Arrival in Abisko; pick up keys at ANS                                                          |          | GBW            |
| Tue | 03-sep | 0900-1200  | Lecture     | <b>Introduction</b>                                                                             | B-house  | JS             |
|     |        | 1300-1400  | Lecture     | <b>The Arctic and Subarctic terrestrial environment</b>                                         | B-house  | JS             |
|     |        | 1430-1500  | Lecture     | <b>Climate change in the Arctic and Subarctic</b>                                               | B-house  | JS             |
|     |        | 1500-1530  | Instruction | <b>Instructions: Excursion Mt. Nuolja (+group picture)</b>                                      | B-house  | JS             |
|     |        | 1530-1600  | Instruction | <b>Instructions: projects</b>                                                                   | B-house  | GBW, RGul, LK  |
|     |        | 1600-1700  | Instruction | Tour of the labs, lab security                                                                  |          | LK             |
| We  | 04-sep | 0830-0900  | Instruction | Cleaning & tour of the buildings and personnel                                                  |          | Noella Jonsson |
|     |        | 0900-1300  | Self study  | Prepare Mt. Nuolja excursion                                                                    |          |                |
|     |        | 1400-1500  | Lecture     | <b>Plants and plant-plant interactions in cold climates</b>                                     | B-house  | JS             |
|     |        | 1500-1700  | Project     | Self study: Course literature - projects                                                        |          | GBW, RGul, LK  |
| Thu | 05-sep | 0900-1000  | Lecture     | <b>Experimental design and hypothesis</b>                                                       | B-house  | JS/GBW?        |
|     |        | 1000-1700  | Project     | Reading time and development of hypothesis and aims                                             |          | GBW, RGul, LK  |
| Fr  | 06-sep | 0900-1100  | Instruction | <b>Mountain Security, orienteering</b>                                                          |          | KH             |
|     |        | 1100-1700  | Excursion   | <b>Excursion, self-guided: The Arctic/alpine landscape - Mt Nuolja</b>                          |          |                |
| Sa  | 07-sep |            |             |                                                                                                 |          |                |
| Su  | 08-sep |            |             |                                                                                                 |          |                |
| Mo  | 09-sep | 0900-1100  | Lecture     | <b>Belowground ecology I/plant roots</b>                                                        | zoom     | GBW            |
|     |        | 1100-1200  | Symposium   | <b>Presentation hypothesis</b>                                                                  | B-house  | GBW, RGul, LK  |
|     |        | 1300-1700  | Workshop    | <b>Seasonality workshop part 1 &amp; Project (preparation &amp; practice)</b>                   |          | JD, RGul, LK   |
| Tue | 10-sep | 0900-1700  | Project     | Project (practical work)                                                                        |          | RGul, LK       |
| Wed | 11-sep | 0900-1000  | Lecture     | <b>Belowground ecology II/Plant-soil microbe interactions</b>                                   | B-house  | RG             |
|     |        | 1000-1700  | Project     | Project (practical work)                                                                        |          | RGul, LK       |
| Thu | 12-sep | 0800-1700  | Excursion   | <b>Subarctic vegetation, Nutrient limitations, Plant-soil-microbe interactions (Kärkevagge)</b> |          | RG             |
| Fr  | 13-sep | 0900-1100  | Lecture     | <b>Herbivores and herbivory in the Arctic</b>                                                   | B-house  | TH             |
|     |        | 1200-1700  | Excursion   | <b>Herbivores/Sami/Landscapes/scaling</b>                                                       |          | TH             |
| Sa  | 14-sep |            |             |                                                                                                 |          |                |
| Su  | 15-sep |            |             |                                                                                                 |          |                |
| Mo  | 16-sep | 0900-1700  | Project     | Project (practical work)                                                                        |          | RGul, LK       |
| Tue | 17-sep | 0900-1700  | Project     | Project (practical work)                                                                        |          | RGul, LK       |
| We  | 18-sep | 0900-1700  | Project     | Project (practical work)                                                                        |          | RGul, LK       |
| Thu | 19-sep | 0900-1700  | Project     | Project (practical work)                                                                        |          | RGul, LK       |
| Fri | 20-sep | 0900-1700  | Project     | Project (last practical work) // Self study: Course literature - projects                       |          | RGul, LK       |
| Sa  | 21-sep |            |             |                                                                                                 |          |                |
| Su  | 22-sep |            |             |                                                                                                 |          |                |
| Mo  | 23-sep | 0900-0930  | Instruction | <b>Instructions methods seminar</b>                                                             | B-house  | LK             |
|     |        | 0930-1500  | Project     | Project (prepare methods posters)                                                               |          |                |
|     |        | 1500-1700  | Seminar     | <b>Methods poster seminar</b>                                                                   | B-house  | RGul, LK       |
| Tue | 24-sep | 0900-1500  | Self study  | Prepare for literature seminar I                                                                |          |                |
|     |        | 1500-1700  | EXAM        | <b>Literature Seminar I "arctic plant-soil linkages"</b>                                        | B-house  | JD             |
| Wed | 25-sep | 0900-1100  | Project     | Project (data analysis) meeting with JD to discuss data analysis                                |          | JD             |
|     |        | 1100-1700  | Project     | Project (data analyses)                                                                         |          |                |
| Thu | 26-sep | 0900-1700  | Project     | Project (data analyses)                                                                         |          |                |
| Fr  | 27-sep | 0900-1000  | Seminar     | <b>Pictionary 1</b>                                                                             | B-house  | EPP            |
|     |        | 1000-1700  | Project     | Project (data analyses)                                                                         |          | JD             |
| Sa  | 28-sep |            |             |                                                                                                 |          |                |
| Su  | 29-sep |            |             |                                                                                                 |          |                |
| Mon | 30-sep | 0900-1100  | Workshop    | self-study: Prepare graphs for seasonality workshop                                             |          | JD             |
|     |        | 1100-1700  | Self study  | Course literature - projects / last data analysis                                               |          |                |
| Tue | 01-okt | 0900-1130  | Lecture     | <b>Climate feedbacks from arctic ecosystems (plot scale)</b>                                    | B-house  | JO             |
|     |        | 12:30-1700 | Excursion   | <b>Permafrost peatlands (Stordalen)</b>                                                         |          | JO, ICOS       |
| We  | 02-okt | 0900-1500  | Self study  | Prepare for literature seminar II                                                               |          |                |
|     |        | 1500-1700  | EXAM        | <b>Literature Seminar II "grazed arctic landscapes"</b>                                         | B-house  | JD             |
| Thu | 03-okt | 0830-1030  | Lecture     | <b>Climate feedbacks from arctic ecosystems (landscape scale)</b>                               | B-house  | JO             |
|     |        | 1030-1330  | Excursion   | <b>Scaling arctic ecosystems</b>                                                                |          | JD             |
| Fr  | 04-okt | 0900-1000  | Lecture     | <b>Instructions: Writing a paper</b>                                                            | zoom     | GBW            |
|     |        | 1100-1700  | Project     | Project (literature study, writing report)                                                      |          |                |
| Sa  | 05-okt |            |             |                                                                                                 |          |                |
| Su  | 06-okt |            |             |                                                                                                 |          |                |
| Mo  | 07-okt | 0900-1700  | Project     | Project (writing report)                                                                        |          |                |
| Tue | 08-okt | 0900-1700  | Project     | Project (writing report)                                                                        |          |                |
| Wed | 09-okt | 0900-1500  | Self study  | Prepare for literature seminar III                                                              |          |                |
|     |        | 1500-1700  | EXAM        | <b>Literature Seminar III "Experimental design"</b>                                             | B-house  | EPP            |

|     |        |           |            |                                                                    |         |                   |
|-----|--------|-----------|------------|--------------------------------------------------------------------|---------|-------------------|
| Thu | 10-okt | 0900-1700 | Project    | Project (writing report)                                           |         |                   |
| Fri | 11-okt | 0900-1700 | Project    | Project (writing report)                                           |         |                   |
|     |        | 1700      | Project    | Hand in first draft of report to peers at 17:00 latest             |         | RGul, GBW, LK     |
|     |        |           | Project    | Upload project data to Canvas                                      |         | RGul, GBW, LK     |
| Sa  | 12-okt |           |            |                                                                    |         |                   |
| Su  | 13-okt |           |            |                                                                    |         |                   |
| Mo  | 14-okt | 0900-1300 | Project    | Peer reviewing project reports draft                               |         |                   |
|     |        |           | Project    | Responses sent from peers to first draft, latest 13.00             |         | RGul, GBW, LK     |
|     |        | 1400-1700 | Project    | Project (revising report)                                          |         |                   |
| We  | 16-okt | 0900-1700 | Project    | Project (revising report)                                          |         |                   |
|     |        | 1700      | Project    | Hand in first draft of report to group supervisors at 17.00 latest |         | RGul, GBW, LK     |
| Thu | 17-okt | 0900-1699 | Self study | Study time (course literature)                                     |         |                   |
| Fri | 18-okt | 0900-1700 | Self study | Study time (prepare oral presentation, course literature)          |         |                   |
| Sa  | 19-okt |           |            |                                                                    |         |                   |
| Su  | 20-okt |           |            |                                                                    |         |                   |
| Mo  | 21-okt | 0800-1000 | Project    | Project (feedback from group supervisor, responses to first draft) | B-house | RGul, GBW, LK     |
|     |        | 1000-1700 | Project    | Project (revising report)                                          |         |                   |
| Tue | 22-okt | 0900-1000 | Lecture    | <b>Mosses and lichens in the Arctic</b>                            | B-house | RGul              |
|     |        | 1030-1700 | Project    | Project (revising report)                                          |         |                   |
| We  | 23-okt | 0900-1700 | Project    | Project (revising report)                                          |         |                   |
|     |        | 1700      | Project    | Hand in final report to GBW, LK, RGul at 17.00 latest              |         | RGul, GBW, LK     |
| Thu | 24-okt | 0900-1200 | Self study | Study time (prepare oral presentation)                             |         |                   |
|     |        | 1300-1600 | EXAM       | <b>Project: mini-symposium (oral presentations)</b>                | B-house | RGul, GBW, LK     |
|     |        | 1600-1700 | Self Study | Study time (course literature, pictionary)                         |         |                   |
|     |        | 1700      | Deadline   | Hand in pictionary drawings                                        |         |                   |
| Fri | 25-okt | 0900-1300 | Self study | Study time (course literature)                                     |         |                   |
|     |        | 1300-1400 | Seminar    | <b>Pictionary 2</b>                                                | B-house | EPP?              |
|     |        | 1500-1600 | Meeting    | Questions to teachers                                              | B-house | GBW, JS           |
|     |        | 1600-1700 | Self Study | Study time (course literature, update seasonality graphs)          |         |                   |
| Sa  | 26-okt |           |            |                                                                    |         |                   |
| Su  | 27-okt |           |            |                                                                    |         |                   |
| Mo  | 28-okt | 0900-1200 | Self study | Study time (course literature, exam study)                         |         |                   |
|     |        | 1300-1700 | Workshop   | <b>Seasonality and Winter processes part 2</b>                     |         | JD                |
| Tue | 29-okt | 0900-1700 | Self study | Study time (course literature, exam study)                         |         |                   |
| We  | 30-okt | 0900-1200 | Self study | Study time (course literature, exam study)                         |         |                   |
|     |        | 1300-1700 | EXAM       | <b>Written exam</b>                                                | B-house | LK                |
| Thu | 31-okt | 1130-1330 |            | Evaluation                                                         | B-house | GBW, ED, RGul, LK |
| Fr  | 01-nov | 0800-1000 |            | Cleaning and departure                                             |         |                   |