

**Arctic Science 2017, 4.5 ECTS**  
**Schedule for the Kiruna meeting, 1<sup>st</sup> – 4<sup>th</sup> February 2017**

<p><b>Wednesday 1 Feb.</b> 7:55  8:40 – 9:30  9:30 – 9:45 9:45 – 10.15  10:15 – 11.00 11:00 – 12:00 12:15 – 13:00 13:00 – 14:45 14:45 – 15:15 15:15 – 16:30 16:40</p>	<p><b>Swedish Institute of Space Physics, Auditorium</b> Regular bus departs bus station, arrives Space Campus approx 08:30 <i>Course registration, general information and presentation of the course exercises, Carol Norberg &amp; Carina Gunillasson</i> Coffee break <i>Current activities of the Swedish Institute of Space Physics, Rick McGregor</i> Tour of the Space Campus <i>Living in a cold climate, Fredrik Kjellberg</i> Lunch <i>Ice particles in the atmosphere, Thomas Kuhn</i> Coffee break <i>Magnetospheric physics, aurora physics, Carol Norberg</i> Regular bus departs from the Space Campus Evening: Aurora observations weather permitting</p>
<p><b>Thursday 2 Feb.</b> 10:15 11:30 – 12:30 12:30 – 13:30 14:00  16:00 18:15 19:00 – 20:00  20:00 – 23:00 23:15</p>	<p><b>Abisko</b> Chartered bus departs for Abisko Lunch at the tourist station in Abisko <i>Avalanches presentation. Lecturer to be announced</i> Chair lift to Aurora Sky Station Coffee and cake can be bought in the Sky Station Return journey with the chair lift Walk to the Abisko Research Station <i>The climate's impact on the Arctic environment, Keith Larsson at the Abisko Research Station</i> Aurora observations Chartered bus back to Kiruna</p>
<p><b>Friday 3 Feb.</b> 9:00  9:30 – 11:00  11:10 – 12:10 12:10 – 13:00 13:00 13:30 regular bus to Jukkasjärvi 14:30  15:30 or 16:30</p>	<p><b>Swedish Institute of Space Physics, Auditorium</b> Regular bus departs from bus station, arrives Space Campus 09:20 <i>Glacier research, Activities at the Tarfala research station</i> Gunhild Rosqvist Film about the construction of the ICEHOTEL Lunch Group photograph in front of the Institute <b>Visit to ICEHOTEL, Jukkasjärvi</b>  Guided tour of the ICEHOTEL followed by free time to look around. Regular bus departs Jukkasjärvi  Evening: Aurora observations weather permitting</p>
<p><b>Saturday 4 Feb.</b> 10:00 – 12:00</p>	<p><b>Parkskolan, Auditorium</b> <i>Snow exercise</i> The exercise comprises an introduction, outdoor snow pack investigation, involving digging in the snow and concludes with a group discussion.</p>

The Swedish Government finances this course. It is a distance course with one meeting in Kiruna from 1<sup>st</sup> to 4<sup>th</sup> February.

### **Participating lecturers**

Dr. Carol Norberg, Reader in Space Physics, Umeå University

Dr. Rick McGregor, Swedish Institute of Space Physics

Dr. Fredrik Kjellberg, Senior physician

Dr. Keith Larson, Postdoctoral researcher, Climate Impacts Research Centre

Personnel, Abisko tourist station

Dr. Thomas Kuhn, Assistant Professor, Satellite Atmospheric Science Group, Luleå University of Technology

Jenny Råghall, Avalanche technician Abisko

Professor Gunhild Rosqvist, Department of Natural Geography, Stockholm University.

Director of the Tarfala Research Station

Maria Johansson, Kiruna

### **Cold-weather clothing**

In order to keep warm in the subarctic climate one should dress according to the three-layer principle. In order to regulate the body's temperature it is better to have several thin layers of clothing than one thick layer. The thin layers create several insulating air layers between them.

1. The inner layer should be underwear made of wool, preferably two layers.
2. The intermediate layer should be warming, such as a wool jumper or fleece jacket
3. The outer layer should protect against the weather, a windproof jacket (e.g. down jacket) and thermal trousers.
4. A warm hat and gloves are essential and a scarf is preferred.

A pair of spacious shoes will allow you to fit an extra pair of wool socks and let your toes have room to move. It is advisable to avoid taking a shower or bath before going outside. Avoid using water-based skin creams as these may cause frostbite.

### **Course coordinator and examiner**

Dr. Carol Norberg, Umeå University

E-mail: carol@irf.se

Telephone +46-70-2793999

### **Course administrator**

Carina Gunillasson, Swedish Institute of Space Physics

E-mail: carina.gunillasson@irf.se

Telephone +46-980-79000

Mobile +46-70-2156929

Fax: +46-980-79050

We reserve the right to make adjustments in the schedule if necessary. The exact schedule will be somewhat dependent on the weather.