



Umeå University
Department of Physics
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Course certificate
Course code: 5FY105

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Arctic Science

4.5 ECTS-credits. Bachelor level.

Main field of study: Physics

Georges Labreche

Date of birth: 9 April 1984

has, in accordance with the provisions of the Higher Educational Ordinance (1993:100)
completed the above course and been awarded the following grade

Grade: Pass with Distinction

Date: 30 March 2018

Aims and main content of the course

(details of the sub-courses comprising the course are set out overleaf)

The aim of the course is to give students studying on traditional science and engineering degree programmes, at universities in Sweden and abroad, insight into atmospheric and space-related phenomena that one can observe in the arctic environment during the winter months. Effects of climate change on the arctic environment are presented. The course also contains an introduction to snow and ice-related phenomena. The course is given in Kiruna and the language of instruction is English.

On behalf of the Office of the Vice Chancellor

A handwritten signature in black ink, appearing to read 'Carol Norberg'.

Carol Norberg

The grades awarded for the course are either Pass, Pass with Merit or Pass with Distinction. An academic year is equivalent to 40 weeks of full-time study and comprises 60 higher education credits. One term of full time studies corresponds to thirty higher education credits. This course certificate is in accordance with a syllabus issued on 1 January 2008.

Part 1, Theory, 1.5 ECTS-credits

Introduction to magnetospheric physics, auroral physics and observations, optical phenomena in polar regions, mother of pearl clouds, snow and ice-related phenomena as well as the climate's impact on the arctic environment. The course also includes a presentation of the research activities in the Kiruna area and study visits. A number of compulsory assignments are included.

Part 2, Practical part, 1.5 ECTS-credits

This part consists of a practical course that concludes with a written report.

Part 3, Project work, 1.5 ECTS-credits

Project work including a written report.