



## DEPARTMENT OF EARTH SCIENCES

### **GE6000 Urban Climate and Urban Climate Planning, 7.5 credits**

Stadsklimat och klimatplanering, 7,5 högskolepoäng

*Second Cycle*

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#### **Confirmation**

This course syllabus was confirmed by Department of Earth Sciences on 2011-09-27 and was last revised on 2016-09-26 to be valid from 2016-09-26, autumn semester of 2016.

*Field of education:* Science 100%

*Department:* Department of Earth Sciences

#### **Position in the educational system**

The course is included in the Bachelor's programme in earth sciences with specialisation in climatology/physical geography and in the Master's programme in geography. The Course can also be read as a single subject course.

The course can be part of the following programmes: 1) Master's Programme in Geography (N2GEO), 2) Bachelor's Programme in Earth Sciences (N1GVS), 3) Bachelor of Science in Environmental Science (N1MVN), 4) Environmental Sciences (N2MVN), 5) Master's Programme in Earth Sciences (N2GVS) and 6) Atmospheric Science, Master's Programme (N2ATM)

#### *Main field of studies*

Earth Sciences

Geography

#### *Specialization*

A1N, Second cycle, has only first-cycle course/s as entry requirements

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#### **Entry requirements**

For admission to the course, at least 120 credits are required from completed courses in the different main fields within Natural Sciences of which 75% with the grade lowest Approved. Furthermore, students with equivalent number of credits in Human geography and Architecture can be admitted to the course. Students with equivalent

education can after assessment be given admission to the education.

### **Learning outcomes**

Upon successful completion of the course, the student will be able to:

#### *Knowledge and understanding*

- describe urban climate, thermal comfort and climate planning
- describe relevant concepts and concept definitions
- illustrate current research and development work

### *Competence and skills*

- integrate knowledge as well as analyse, assess and handle issues in urban climatology, thermal comfort and climate planning
- independently and together with others identify and formulate research questions as well as to plan and with adequate methods carry out qualified assignments within given time frames
- present results both orally and in writing

### *Judgement and approach*

- ability to critically review knowledge and current research in urban climate, thermal comfort and climate planning on the basis of sustainable development perspective

### **Course content**

The course contains theoretical and practical components about how:

- the settlement influences radiation balance, energy flow, temperature, humidity and wind conditions in surface layers
- human energy balance's in relation to the outdoor environment, different thermal indices to describe the thermal comfort as well as the connection between man, climate and behaviour
- application of climate knowledge in urban planning and design

The teaching consists of lectures, exercises (compulsory), Field project (compulsory), guest lectures (compulsory), supervision in the form of seminars connected to lectures and exercises as well as a final literature seminar (compulsory). The Field project consists of the collection of the meteorological data. Strong emphasis is placed on design, implementation, analysis and presentation of field project and exercises.

### **Form of teaching**

The field project is presented with written reports as well as oral presentation. Attendance on the guest lectures is compulsory.

*Language of instruction:* English

### **Assessment**

Components 1 Theory (Theory) 5 credits Fail/Pass/V

Components 2 Exercises/field project (Exercises, field project) 2 credits Fail/Pass

Components 3 Guest lectures (Guest lecturer) 0.5 credits Fail/Pass

A student has the right to request a change of examiner if failed twice on the same exam, if this is practically possible. The application shall be sent to the board of the department and has to be in writing.

### **Grades**

The grading scale comprises: Pass with Distinction (VG), Pass (G) and Fail (U).

For course grade is required that all components, including compulsory components are passed. A combined result of all modules decides the final grade which is issued by the course, only when all modules have passed.

### **Course evaluation**

A written evaluation of the course takes place at the end of the course. The student participates anonymously. Also an oral evaluation takes place at course end. A compilation of the result of the course evaluation will be available through the student administration at the responsible department

### **Additional information**

The guest lectures are compulsory.