



Board of Teacher Education  
Biology

## Syllabus

### Science and Science Teaching 4

<b>Course Code:</b>	BIAN91
<b>Course Title:</b>	Science and Science Teaching 4 <i>Naturkunskap med didaktisk inriktning 4</i>
<b>Credits:</b>	7.5
<b>Degree Level:</b>	Master's level
<b>Progressive Specialisation:</b>	Second cycle, has second-cycle course/s as entry requirements (A1F)

#### Major Field of Study:

#### Course Approval

The syllabus was approved by the Board of Teacher Education 2015-10-01, and is valid from the Autumn semester 2016 at Karlstad University.

#### Prerequisites

The courses BIGLN1, BIGLN2 and BIGLN3 with 75 ECTS cr completed, or equivalent.

#### Learning Outcomes

The aim of the course is that students enhance their understanding of their future duties as teachers. Students develop sound and relevant knowledge and skills for teaching science in education.

Upon completion of the course, students should be able to:

1. describe the basic theories and knowledge of climate change, historically, today and in the future,
2. analyse the causes and consequences of climate change at the global, regional and local levels,
3. give an account of how climate models and future scenarios will affect different eco systems, sectors and people in different parts of the world, and how different climate adjustments can be made,
4. explain how climate change can be reduced and how a sustainable climate effect can be achieved, internationally and nationally,
5. relate climate change issues to national curricula and to the teaching profession,
6. give an account of educational theories relating to climate change, environmental problems and sustainable development,
7. plan, discuss and evaluate a teaching sequence relevant to current curricula by considering the questions Why, For whom, What and How?

#### Content

The aim of the course is to provide basic and deep knowledge of climate change at global, regional and local levels. The causes of climate change in a historical, present and future perspective are treated. The consequences of climate change for different eco systems, social sectors and people in various parts of the world as well as strategies for climate adjustment and knowledge of how climate effects can be sustainable are treated. Educational theories and research on climate change and sustainable development and how the teacher can plan teaching on climate changed on the basis of

curricula are discussed.

### **Reading List**

See separate document.

### **Examination**

Learning outcomes 1-4 are assessed on the basis of hand-in assignments and an individual take-home exam.

Learning outcomes 5-7 are assessed on the basis of hand-in assignments and active participation in seminars.

All assessment components are mandatory and individually assessed.

### **Grades**

One of the grades Distinction (VG), Pass (G), or Fail (U) is awarded in the examination of the course.

### **Quality Assurance**

Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course evaluation is partly based on student views and experiences obtained in accordance with current regulations and partly on other data and documentation. Students will be informed of the result of the evaluation and of any measures to be taken.

### **Course Certificate**

A course certificate will be provided upon request.

### **Additional information**

The local regulations for studies at the Bachelor and Master levels at Karlstad University stipulate the obligations and rights of students and staff.