



Board of Teacher Education  
Physics

# Syllabus

## Integrated science and technology teaching in preschool

<b>Course Code:</b>	FLGI40
<b>Course Title:</b>	Integrated science and technology teaching in preschool <i>Ämnesintegrerad naturvetenskap och teknik i förskolans undervisning</i>
<b>Credits:</b>	7.5
<b>Degree Level:</b>	Undergraduate level
<b>Progressive Specialisation:</b>	First cycle, has less than 60 credits in first-cycle course/s as entry requirements (G1F)

### Major Field of Study:

### Course Approval

The syllabus was approved by the Board of Teacher Education 2023-08-23, and is valid from the Spring semester 2024 at Karlstad University.

### Prerequisites

22.5 ECTS credits completed in Child and Childhood courses, including at least a grade of Pass (G) for 7.5 ECTS credits in Learning and Development (placement module), or equivalent

### Learning Outcomes

The aim of the course is for students to develop an understanding of and skills in methods based on play and theme work in interaction between nature and society.

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

1. use digital tools to control technical artifacts, and reflect upon the use of digital tools in

- teaching in preschool,
2. give an account of a few natural cycles in relation to biological and technical systems,
  3. apply process drama and visual narrative and reflect upon how they can be used in relation to the other topics treated in the course,
  4. plan, carry out, and evaluate an activity based on the course content and teaching in preschool, and
  5. carry out and analyse a systematic observation using a quantitative method.

### **Content**

The course covers the following:

- digital tools and programming applications
- natural cycles, biological and technical systems and the role of humans in them
- process drama in relation to the other topics covered in the course
- various types of visual narrative in relation to science and technology
- teaching in preschool in relation to the course content
- quantitative method, statistics, and observation

### **Reading List**

See separate document.

### **Examination**

Learning outcomes 1, 2, and 3 are assessed based on an individual written hand-in assignment.

Learning outcome 4 is assessed based on digital production in groups.

Learning outcome 5 is assessed based on an individual written hand-in assignment.

If students have a decision from Karlstad University entitling them to Targeted Study Support due to a documented disability, the examiner has the right to give such students an adapted examination or to examine them in a different manner.

### **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.

The language used in the course is English. The course is offered to international students in the Early Years Education programme or equivalent.