Programme syllabus

An accessible version of the syllabus can be found in the Course and programme directory.

Bridging Teacher Education Programme in Mathematics, Science and Technology for Graduates with a Third Cycle Degree 90 credits

Kompletterande pedagogisk utbildning för ämneslärarexamen i matematik, naturvetenskap och teknik för forskarutbildade

Valid for students admitted to the education from spring 22 (HT - Autumn term; VT - Spring term).

This is a translation of the Swedish, legally binding, programme syllabus.
Programme objectives

For the degree in teacher training, the student must demonstrate the knowledge and skills required to work independently as a teacher in the areas of education which are relevant to the programme. The student must also demonstrate the knowledge and ability for other teaching authorised by the degree in accordance with the current applicable regulations.

Knowledge and understanding

For the degree in teacher training for secondary school years 7-9 the student must be able to do the following:

- demonstrate the subject knowledge required to practise his/her profession. This includes an overview of the main areas of the subject studies as well as in-depth knowledge within certain parts of this area and insights into current work in research and development,

For the degree in teacher training for upper-secondary level the student must be able to do the following:

- demonstrate the subject knowledge required to practise his/her profession. This includes a wide knowledge of the main areas of the subject studies as well as essential in-depth knowledge within certain parts of this area and deeper insight into current research and development work.

For the degree in teacher training the student must also:

- demonstrate knowledge of teaching and learning and subject-related teaching and learning including methodology required for teaching within the subject/subjects related to the training and other activities therein as well as awareness of adult learning,

- demonstrate in-depth knowledge of scientific theory as well as qualitative and quantitative research methods whilst demonstrating knowledge of the relationship between scientific basis and tried and tested experience and the significance of this relationship for the profession,

- demonstrate knowledge about child and adolescent development, learning needs and abilities required for the activities that the programme is intended for,

- demonstrate knowledge and understanding of social relationships, conflict management and leadership

- demonstrate knowledge of the school system's organization, relevant policy documents, curriculum theory and different pedagogical and teaching/learning perspectives, demonstrate knowledge of the school system's history, and

- demonstrate in-depth knowledge of assessment and grading/marking.
Skills and abilities

To obtain the degree of teacher training for secondary schools the student must:

- demonstrate in-depth ability to create conditions for all pupils to learn and develop

- demonstrate in-depth ability to critically and independently utilise, systematise and reflect upon his/her own experience and that of others as well as relevant research results in order to contribute to the development of the profession and knowledge development within the subjects, subject areas and subject-related teaching and learning,

- demonstrate the ability to take advantage of pupils' knowledge and experiences to stimulate every individual's learning and development,

- demonstrate the ability to apply teaching and learning as well as subject-related teaching and learning, including methodology, required for the subject or subjects for which the programme is intended and for the other activities the programme is intended for,

- demonstrate the ability to plan, implement, evaluate and further develop teaching and other pedagogical activities both independently and in collaboration with others with the aim of stimulating the learning and development of each pupil in the best possible way,

- demonstrate the ability to identify and in collaboration with others, manage special education needs

- demonstrate the ability to observe, document and analyse pupils' learning and development in relation to the aims of activities and to inform, and cooperate with, pupils and their parents or guardians,

- demonstrate the ability to communicate and firmly establish the ethics and values of the school, including human rights and and basic democratic values,

- demonstrate the ability to prevent and counteract discrimination and other ill-treatment of pupils,

- demonstrate the ability to observe, communicate and firmly establish a perspective of equality and equal opportunity in the pedagogical activities,

- demonstrate communicative ability in listening, speaking and writing in support of the pedagogical activities,

- demonstrate the ability to both safely and critically utilize digital tools within pedagogical activities and take into consideration the significance of the role played by different media and digital environments in these activities, and

- demonstrate the ability in the pedagogical activities to develop skills which are valuable for the profession.
Ability to make judgements and adopt a standpoint

Extent and content of the programme

The programme comprises twelve months of continuous full-time studies. This in turn consists of 60 ECTS credits dedicated to a core of educational sciences and 30 credits of pre-work placement (internships).

Eligibility and selection

Third-cycle qualification (licenciate or doctoral degree), English level 6 or Swedish level 3 (or equivalent) as well as subject knowledge in one to three of the following major and minor subjects:

- For grades 7-9 in secondary school in one subject, 90 credits in mathematics, biology, physics, chemistry or technology.

- For grades 7-9 in secondary school in two subjects, 90 credits in mathematics, biology, physics, chemistry or technology as well as 60 credits in mathematics, physics, chemistry or technology.

- For grades 7-9 in secondary school in three subjects, 90 credits in mathematics, biology, physics, chemistry or technology as well as 45 credits in two of the following subjects; mathematics, physics, chemistry or technology.

- For upper-secondary school in one subject, 120 credits in one of the following subjects; mathematics, biology, physics, chemistry or technology.

- For upper-secondary school in two subjects, 120 credits in one of the following subjects; mathematics, biology, physics, chemistry or technology as well as 90 credits in mathematics, biology, physics, chemistry, science or technology.

- 90 credits in science is only possible when combined with 120 credits in biology or chemistry.

If there is a high demand for placement on the programme then a sequential selection process will be applied. If qualifications among competing candidates prove to be the same then lots will be drawn as a final resort. Applicants who fulfill the specific criteria for eligibility for the programme will be ranked as follows:

1. Qualified in two or three of the teaching subjects biology, chemistry, mathematics, physics, and technology according to the rules above.

2. Qualified in one of the teaching subjects biology, chemistry, mathematics, physics, and technology.

3. Third cycle degree in another subject than mathematics, science, or technology.
Implementation of the education

Courses

The programme is course-based. Lists of courses are included in appendix 1.

Grading system

Courses in the first and the second cycle are graded on a scale from A to F. A-E are passing grades, A is the highest grade. The grades pass (P) and fail (F) are used for courses under certain circumstances.

Appendix 1 - Course list
Appendix 2 - Programme syllabus descriptions
Appendix 1: Course list

Bridging Teacher Education Programme in Mathematics, Science and Technology for Graduates with a Third Cycle Degree (KPUFU)

General courses

Year 1

Mandatory courses (45.0 Credits)

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>Credits</th>
<th>Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>LT1014</td>
<td>Education, School and Society-Contemporary and Historical Perspectives</td>
<td>6.0 hp</td>
<td>First cycle</td>
</tr>
<tr>
<td>LT1024</td>
<td>Social Relations and Leadership</td>
<td>7.5 hp</td>
<td>First cycle</td>
</tr>
<tr>
<td>LT1026</td>
<td>Programme Integrating Course for Bridging Teacher Education Programme for Graduates with a Third Cycle Degree</td>
<td>1.5 hp</td>
<td>First cycle</td>
</tr>
<tr>
<td>LT1027</td>
<td>School Placement 1</td>
<td>12.0 hp</td>
<td>First cycle</td>
</tr>
<tr>
<td>LT1028</td>
<td>Placement 2</td>
<td>3.0 hp</td>
<td>First cycle</td>
</tr>
<tr>
<td>LT2029</td>
<td>School Placement 3</td>
<td>15.0 hp</td>
<td>Second cycle</td>
</tr>
</tbody>
</table>

Conditionally elective courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>Credits</th>
<th>Edu. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>LT2030</td>
<td>Teaching and Learning in Technology and Engineering, part 1</td>
<td>5.0 hp</td>
<td>Second cycle</td>
</tr>
<tr>
<td>LT2031</td>
<td>Teaching and Learning in Technology and Engineering, Part 2</td>
<td>5.0 hp</td>
<td>Second cycle</td>
</tr>
</tbody>
</table>
Supplementary information

The programme is studied at a faster rate and includes an academic year consisting of the spring semester, the summer semester and autumn semester.

The course list is preliminary and may change.

Courses at Stockholm University:

- UM7101, Science Education, Curriculum Studies and Assessment, AN, 10 credits
- DIG11K, Perspectives on learning and development - Bridging Teacher Education, GN, 5 credits
- UQK05K, Special Education, AN, 5 credits
- UM8017, AN, 5 credits *
- UM8018, AN, 5 credits *
- UM8022, AN, 5 credits *
- UM8027, AN, 5 credits *
- degree project in subject teaching/learning, AN, 15 credits **

Courses at Royal Institute of Technology (KTH)

- LT202X Degree Project in Subject-Based Teaching and Learning, Second Cycle; AN, 15 credits **

* (Two of six teaching/learning courses are studied depending on the combination of subjects)

**(One of the courses is studied)

AN (second cycle)

GN (first cycle)
Appendix 2: Specialisations

Bridging Teacher Education Programme in Mathematics, Science and Technology for Graduates with a Third Cycle Degree (KPUFU)

This programme has no specialisations.