KTK - Technology Oriented Primary Teacher Education 2012-2013 (2012 - 2013)

Technology oriented primary teacher education (TEKNO)

Technology oriented primary teacher education differs from the other primary teacher education programmes in that the newly graduated primary teachers can work as expert teachers in technology education in the lowest grades of basic education. Technology education is understood here in terms of educating for a technological world, where technology is for man and not vice versa. The Master’s degree with an orientation to technology oriented primary teacher education deepens the student’s competence to function as an expert of education and teaching in educational organisations. The education gives the student a diversified competence in pedagogy, didactics and subject mastery to meet educational challenges in the future school. The studies offer ingredients for the construction of a personal pedagogical viewpoint and activity and guide the student to become conscious of the social significance of the primary teacher’s work.

Learning Outcomes (BA):
- Student is able to collect pedagogically relevant items to his/her personal pedagogical portfolio.
- Student is capable of discussing the nature of pedagogical action and the applicability of pedagogical theory.
- Student is able to discuss the assessment and evaluation of learning and recognises learning as a life-long process.
- Student can explicate his/her understanding of the subject knowledge of various subjects to the pupils.
- Student can examine the special educational needs of pupils.
- Student is able to adapt his/her behavior and action in different educational and teaching situations.
- Student shows responsibility, empathy and tact in educational situations.
- Student is able to participate in planning and evaluation tasks in education.
- Student is able to analyse and explain the technological world on the level of school children.

Learning Outcomes (MA):
- Student identifies the need for continuous self-development.
- Student is able to take responsibility for his/her actions and support the learners’ self-efficacy.
- Student is capable of working in a multi-professional environment.
- Student knows how to analyse and explain theoretical knowledge on education and teaching.
- Student is able to recognize and evaluate creativity and innovativity connected with technology education.
- Student shows empathy and pedagogical tact and knows how to evaluate his/her actions in varying situations.
- Student is able to ponder and evaluate critically both his/her own and others’ views.
- Student is capable of planning research-based teaching.

Technology Oriented Primary Teacher Education
Bachelor's Degree
Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education
Humanities module (15 cr)
406020A Mother Tongue and Literature 7 cr
406021A Drama Education 2 cr
406022A History 3 cr
406023A Religion OR 406024A Ethics 2 cr

Science module (15 cr)
406025A Mathematics Education: part I 3 cr
406026A Mathematics Education: part II 2 cr
406027A Physics and Chemistry 4 cr
406028A Biology 2 cr
406029A Geography 2 cr
406030A Health Education 1 cr

Art module (30 cr)
406031A Music 8 cr
406032A Art 7 cr
406033A Crafts/Textile Work and Technology 7 cr
406034A Crafts/Technical Work and Technology 7 cr
406035A Physical Education 7 cr

Bachelor's Degree

Other studies
Language, Communication and Orientation (20 cr)
405018Y Orientation to studies 2 cr
405024Y Introduction to Theoretical Foundations and Practics in Technology Education 2
901001Y Second Official Language (Swedish) 2 cr
902130Y Foreign Language (English) 3 cr
410014Y ICT as a pedagogical tool 3 cr
410017Y Multimedia as a learning project 3 cr
900070Y Scientific Communication I 2 cr
900075Y Speech Communication 2 cr

Basic Studies in Education (25 cr)
410067P Basic course in education 4 cr
410068P Didactics 4 cr
410069P Educational psychology 4 cr
410070P Sociology of education 4 cr
410071P Educational philosophy 4 cr
410076P Pedagogical Seminar in Technology Education I 3 cr
410075P Orientation to Work at School 2 cr

Intermediate Studies in Education (40 cr)
411006A Research course I 10 cr
407024A Teacher as a Pedagogical Thinker and Agent 3 cr
407025A Encountering Diversity 3 cr
407026A Special Education 3 cr
407027A Guidance of Learning, Planning and Evaluation of Teaching 3 cr
407034A Pedagogical Seminar in Technology Education II 3 cr
407029A Infant and Primary Education 3 cr
407030A Bachelor's Thesis 9 cr
407032A School Work in the Bachelor Phase I 3 cr (6cr)

Programme Specific Studies (10 cr)
407033A Science Culture and Technology 3 cr
404005A Mathematics manipulatives 2 cr
405039A Basics of Entrepreneurship Education 2 cr
405040A School Applications of Technology Education 3 cr

Minor Studies (25 cr) subject to the student's choice
(student applies for the right to pursue minor subject studies in the previous spring)
Total of credits /period, if Textile Work 15
Total of credits /period, if Technical Work 16

Master's Degree 4th year

Language, Communication and Orientation (5 cr)
900071Y Scientific Communication II 2 cr
405021Y Knowledge Work as a Pedagogical Challenge 3 cr

Advanced Studies in Education (80 cr)
413005S Research methods II 5 cr
408013S Master's Thesis 40 cr
408014S Optional Course 4 cr
408015S Curriculum and School Development 5 cr
408016S Education and Teacher's Work in Change 5 cr
408017S Pedagogical Seminar III 3 cr
408020S School Work in the Master Phase 11 cr
408021S Theme-based Practice 6 cr
408019S Basics of educational administration 1 cr

Minor Studies (25 cr) subject to the student's choice
(student applies for the right to pursue minor subject studies in the previous spring)

Programme Specific Studies (10 cr)
408022S Application of Research Methods to Technology Education Research 4 cr
405041S Mathematics Teaching-Learning Processes as a Research Object 3 cr
405042S Technology Education as a Research Object 3 cr

Tutkintorakenteet

Technology Oriented Primary Teacher Education, Bachelor's Degree (180 ECTS cr)
Language and Communication (9 ECTS cr) (vähintään 9 op)

902130Y: Foreign Language (English), 3 op
- 902130Y-01: Foreign Language (English) part 1, 1,5 op
- 902130Y-02: Foreign Language (English) part 2, 1,5 op
900070Y: Scientific Communication I, 2 op
901001Y: Second Official Language (Swedish), 2 op
- 901001Y-01: Second Official Language (Swedish), Written Skills, 1 op
- 901001Y-02: Second Official Language (Swedish), Oral Skills, 1 op
900075Y: Speech Communication, 2 op

Orientation Studies (11 ECTS cr) (vähintään 11 op)

410017Y: Digital Media in Teaching and Learning, 2 op
410014Y: Information and communication as a pedagogical tool, 3 op
405024Y: Introduction to Theoretical Foundations and Practics in Technology Education, 4 op
405023Y: Orientation to studies, 1 op

Basic Studies in Education (25 ECTS cr) (vähintään 25 op)

A250523: Education, Basic Studies (TEKNO), 25 op
- 410067P: Basic course in education, 4 op
- 410068P: Didactics, 4 op
- 410069P: Educational psychology, 4 op
- 410070P: Sociology of education, 4 op
- 410071P: Educational philosophy, 4 op
- 410076P: Pedagogical Seminar in Technology Education I, 3 op
- 410075P: Orientation to Work at School, 2 op

Intermediate Studies in Education (40 ECTS cr) (vähintään 40 op)

A250533: Education, Intermediate Studies (TEKNO), 45 op
- 407040A: Basic Course in Quantitative Research, 5 op
- 407024A: Teacher as a Pedagogical Thinker and Agent, 3 op
- 407025A: Encountering Diversity, 3 op
- 407026A: Special Education, 3 op
- 407027A: Guidance of Learning, Planning and Evaluation of Teaching, 3 op
- 407034A: Pedagogical Seminar in Technology Education II, 3 op
- 407029A: Infant and Primary Education, 3 op
- 407030A: Bachelor's Thesis, 9 op
- 407037A: School Work in the Bachelor Phase I, 3 op
Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education (60 ECTS cr) (vähintään 60 op)

A256403: Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education (TEKNO), 65 op

- 406020A: Mother Tongue and Literature, 7 op
  - Compulsory
    - 406020A-01: Literature and Reading, 3 op
    - 406020A-02: Language and Writing, 4 op

- 406021A: Drama Education, 2 op

- 406022A: History, 3 op

- 406025A: Mathematics Education: Part I, 3 op

- 406026A: Mathematics Education: part II, 2 op

- 406027A: Physics and Chemistry, 4 op

- 406028A: Biology, 2 op

- 406029A: Geography, 2 op

- 406030A: Health Education, 1 op

- 406031A: Music, 8 op
  - Compulsory
    - 406031A-01: Pedagogical Applications of Music Education, 3 op
    - 406031A-02: Voice and Singing, 1 op
    - 406031A-03: Listening Education, 1 op
    - 406031A-04: Music Theory in Practice, 1 op
    - 406031A-05: Accompaniment Instrument, 2 op

- 406032A: Art, 7 op
  - Compulsory
    - 406032A-01: Drawing, 1 op
    - 406032A-02: Painting, 1 op
    - 406032A-03: Ceramics, 1 op
    - 406032A-04: Building, 1 op
    - 406032A-05: School graphic, 1 op
    - 406032A-06: Environmental aesthetic, 1 op
    - 406032A-07: Media education, 1 op

- 406035A: Physical Education, 7 op
  - Compulsory
    - 406035A-04: Lectures, adventure, track and field, 1 op
    - 406035A-05: Indoor ball games, basic gymnastics, 1 op
    - 406035A-06: Skiing, rhythmic gymnastics, 1 op
    - 406035A-07: Outdoor ball games, 1 op
    - 406035A-08: Orienteering, artistic gymnastics, 1 op
    - 406035A-09: Skating, swimming, 1 op
    - 406035A-10: SkiAgiFun, the final assignment in p.e., 1 op

- 406040A: Crafts/Technical Work and Technology, 6 op
  - Compulsory
    - 406040A-05: Crafts and Technology in the Context of Technical Work, 2 op
    - 406040A-04: Device Control, 1 op
    - 406040A-02: Applications of mechatronics, 2 op
    - 406040A-03: Applications of Electronics, 2 op

- 407038A: School Work in the Bachelor Phase II, 3 op

- 406023A: Religion, 2 op

- 406024A: Ethics, 2 op

- 406033A: Crafts/Textile Work and Technology, 7 op
  - Compulsory
    - 406033A-01: User-Centred Design and Manufacture as an Approach to Crafts nad Technology Problems, 3 op
    - 406033A-02: Materials, Sewing and Clothing Technology, 2 op
    - 406033A-03: Pedagogical and Didactic Questions, 2 op

Minor Studies (25 ECTS cr) (vähintään 25 op)
There are no strict stipulations on minor subjects at the Faculty of Education. You may select your minor subjects freely from among the studies offered by the University of Oulu.

Choose one minor subject (25 credits) to be included as part of your Bachelor's degree.

**Programme Specific Studies (10 credits) (vähintään 10 op)**

Each primary teacher education programme includes its own programme specific studies. These studies amount to 10 credits in the Bachelor's and another 10 credits in the Master's degree. Among these studies (a total of 20 credits in the lower and higher degree together), a maximum of 5 credits can be free-choice studies, i.e. studies not specific to your own programme.

In the technology oriented primary teacher education programme, the programme specific courses are as follows:

- 405043A Mathematics and science culture and technology, 3 credits
- 405044A Mathematics learning aids, 2 credits
- 405045A Basics of entrepreneurship education, 2 credits
- 405046A School applications of technology education, 3 credits

**Technology Oriented Primary Teacher Education, Master's Degree (120 ECTS cr)**

Tutkintorakenteen tila: archived

Lukuvuosi: 2012-13

Lukuvuoden alkamispäivämäärä: 01.08.2012

**Language and Communication Studies (2 ECTS cr) (vähintään 2 op)**

900071Y: Scientific Communication II, 2 op

**Orientation Studies (3 ECTS cr) (vähintään 3 op)**

405021Y: Knowledge Work as a Pedagogical Challenge, 3 op

**Advances Studies in Education (80 ECTS cr) (vähintään 80 op)**

The Advanced Studies in Education include the course:

408014S Optional course, 3 credits

The student can choose any advanced course in education to earn these credits. See the code for the Optional Course (408014S) in the Study Guide for further details on relevant courses.

A250543: Education, Advanced Studies (TEKNO), 70 op

408013S: Master's Thesis, 35 - 40 op
408014S: Optional Course, 5 op
408015S: Curriculum and School Development, 5 op
408016S: Education and Teacher's Work in Change, 5 op
408023S: Pedagogical Seminar in Technology Education III, 3 op
408020S: School Work in the Master Phase, 11 op
408021S: Theme-based Practice, 6 op
408019S: Basics of educational administration, 2 op
413030S: Advanced course in quantitative research, 5 op

*Compulsory*
Minor Studies (25 ECTS cr) (vähintään 25 op)

There are no strict stipulations on the minor subjects of degrees at the Faculty of Education. You may choose the minor subjects freely from among those offered by the University of Oulu.

Choose one minor subject (25 credits) to be completed as part of the Master's degree.

Programme Specific Studies (10 credits) (vähintään 10 op)

Each primary teacher education programme includes its own programme specific studies. These studies amount to 10 credits in the Bachelor's and another 10 credits in the Master's degree. Among these studies (a total of 20 credits in the lower and higher degree together), a maximum of 5 credits can be free-choice studies, i.e. studies not specific to your own programme.

In the technology oriented primary teacher education programme, the programme specific courses in the Master's studies are as follows:

408022S Application of research methods to research in technology education, 4 credits
405041S Mathematics teaching-learning processes as a research object, 3 credits
405042S Technology education as a research object, 3 credits

Tutkintorakenteisiin kuulumattomat opintokokonaisuudet ja -jaksot

A200055: Orientation-based studies (TEKNO-Bachelor), 7 op
  e1 407033A: Science Culture and Technology, 2 op
  404005A: Mathematics manipulatives, 2 op
  405039A: Basics of Entrepreneurship Education, 2 op
  405040A: School Applications of Technology Education, 3 op
A200056: Orientation-based studies (TEKNO-Master), 13 op
  e1 408022S: Application of Research Methods to Technology Education Research, 4 op
  405041S: Mathematics Teaching-Learning Processes as a Research Object, 3 op
  405042S: Technology Education as a Research Object, 3 op

Opintojaksojen kuvaukset

Tutkintorakenteisiin kuuluvien opinto-kohtaiden kuvaukset
902130Y: Foreign Language (English), 3 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Language and Communication Studies
Laji: Course
Vastuuysikkö: Language Centre
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: English

Leikkaavuudet:
ay902130Y Foreign Language (English) (OPEN UNI) 3.0 op

Voidaan suorittaa useasti: Kyllä

Proficiency level:
B2
Status:
Compulsory course for 1st year students of education.
Required proficiency level:
English must have been A1 or A2 language at school or equivalent English skills acquired otherwise. If you received the grade "L" or "E" in the Finnish matriculation exam, you can be exempted from the first part of the course.

ECTS Credits:
3 ECTS, workload is 80hrs (including 40 hrs of contact teaching)

Language of instruction:
English

Timing:
1st year: autumn term (1,5 ECTS - reading for academic purposes), spring term (1,5 ECTS - scientific communication)

Learning outcomes:

Objectives:
• to develop students’ English language skills needed for effective communication on different topics related to teaching and educational research
• to practice comprehending and producing scientific oral presentations and written texts
• to introduce students to the concept of multiculturalism and its impact on education

Learning outcomes - by the end of the course students are expected to be able:
• to summarize, interpret and discuss academic texts on topics related to the field of education
• to write short essays on the topics related to teaching and educational research
• to search information on a chosen educational theme, and analyze, explain and orally communicate the ideas
• to describe and define the concepts of inter/multiculturalism, and identify and explain its effects on education

Contents:
• reading strategies and techniques with academic texts
• writing activities for summarizing and interpreting texts
• academic writing practice
• oral presentation practice
• intercultural awareness activities

Mode of delivery:
Contact teaching

Learning activities and teaching methods:
Small-group workshop, individual assignments and homework tasks

Target group:
Students of the Faculty of Education

Prerequisites and co-requisites:

- Recommended optional programme components:

- Recommended or required reading:
Course materials subject to a charge will be provided by the teacher

Assessment methods and criteria:
Regular participation in all contact teaching and completion of all required coursework.

Grading:
pass / fail

Person responsible:
See contact teachers
Working life cooperation:
none
Other information:
This course consists of two parts: 902130Y-01 and 902130Y-02
Sign up to both of the parts by clicking the code.

Compulsory

902130Y-01: Foreign Language (English) part 1, 1,5 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Language and Communication Studies
Laji: Partial credit
Vastuuysikkö: Language Centre
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: English

Status:
Part of the course 902130Y Foreign Language (English)

Required proficiency level:
-

ECTS Credits:
1,5 ECTS credits

902130Y-02: Foreign Language (English) part 2, 1,5 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Language and Communication Studies
Laji: Partial credit
Vastuuysikkö: Language Centre
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: English

Ei opintojaksokuvauksia.

900070Y: Scientific Communication I, 2 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Language and Communication Studies
Laji: Course
Vastuuysikkö: Language Centre
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
Leikkaavuudet:
ay900070Y Scientific Communication I (OPEN UNI) 2.0 op

Status:
This course unit is compulsory for all students undertaking a BA degree in Education, Subject Teacher Education, Primary Teacher Education, Technology Oriented Primary Teacher Education, Creative Arts Oriented Primary Teacher Education and Music Education.

Required proficiency level:
-

ECTS Credits:
2 credits
Language of instruction:
Finnish
Timing:
1st year of studies

Learning outcomes:
Upon completion of the course unit the student should be able to prepare a verbally and stylistically fluent scientific presentation. The student should be able to assess and revise his/her own texts and apply the conventions and practices of scientific writing to his/her own work, especially to his/her scientific theses or dissertations. The student should be able to recognise his/her strengths and weak points as a communicator.

Contents:
The basics and various types of scientific communication. The basic notions of grammatical correctness and the stylistic and formal conventions demanded by proper scientific discourse. Critical approach to source literature and the most common formal standards (referencing techniques, constructing bibliographies etc.). Throughout the course unit the student analyses and produces texts of various types.

Mode of delivery:
See Learning activities and teaching methods

Learning activities and teaching methods:
Contact lessons and group work 16 h. Independent study ca. 34 h.

Target group:
See Status

Prerequisites and co-requisites:
-

Recommended optional programme components:
-

Recommended or required reading:

Assessment methods and criteria:
Active participation in teaching, independent study and completion of given assignments.

Grading:
pass / fail

Working life cooperation:
-

901001Y: Second Official Language (Swedish), 2 op

Voimassaolo: 01.08.1995 -
Opiskelumuoto: Language and Communication Studies
Laji: Course
Vastuuysikkö: Language Centre
Opintokohteen kielet: Swedish
Leikkaavuudet:
   ay901001Y   Second Official Language (Swedish) (OPEN UNI)   2.0 op

Proficiency level:
B1/B2/C1 (CEFR scale)

Status:
This course is compulsory to all students. The language proficiency provided by the course unit is equivalent to the language proficiency required of a state official with an academic degree working in a bilingual municipality area (Act 424/03 and Decree 481/03).

According to the requirements of the law, the student must be able to use Swedish both orally and in writing in various professional situations. Achieving this kind of proficiency during a course unit that lasts for only one semester requires that the student has already achieved the necessary starting proficiency level prior to taking the course.

Required proficiency level:
The required starting proficiency level for students of all faculties is a grade of 7 or higher from the Swedish studies at secondary school (B-syllabus) or equivalent knowledge AND a passing grade from the proficiency test held at the beginning of the course unit. Based on this proficiency test the students are directed to brush up on their language skills with a self-study course (901028Y På väg 1-3, 2 ECTS credits) if it is deemed necessary; mastering basic vocabulary and grammar is a prerequisite to achieving the necessary language proficiency for the various communication situations one faces in professional life.

-If a student has not completed Swedish studies (B-language) at secondary school with a grade of 7 or higher, or his/her language skills are otherwise lacking, he/she must achieve the required proficiency level BEFORE taking this compulsory Swedish course unit. Information about brushing up on one's language skills can be found in Finnish here.

ECTS Credits:
2 ECTS credits

**Language of instruction:** Swedish

**Timing:**
autumn or spring term

**Learning outcomes:**
Upon completion of the course the student should be able to read and understand texts from his/her academic field and make conclusions based on them. The student should be able to write typical professional emails and short reports. He/she should be able to carry himself/herself according to Swedish etiquette when acting as host or guest. The student should also be able to discuss current events and special field-specific matters, use the vocabulary of education and plan and give short oral presentations relating to his/her own field.

**Contents:**
Communicative oral and written exercises, which aim to develop the student's Swedish proficiency in areas relevant to his/her academic field and future professional tasks. The student practises oral presentation and pronunciation. Situational oral exercises done individually and in pairs and groups. Discussions in small groups. Current texts about the student's special field. Listening comprehension exercises. Written exercises relating to the student's professional field.

**Mode of delivery:**
Contact teaching

**Learning activities and teaching methods:**
2 x 90 minutes of contact teaching per week and related exercises, self-directed study, a total workload of 130 hours per course.

**Target group:**
Students of the Faculty of Education

**Prerequisites and co-requisites:**
See Required proficiency level

**Recommended optional programme components:**
-

**Recommended or required reading:**
The students will receive course material subject to a charge.

**Assessment methods and criteria:**
The course unit focuses on improving both oral and written language skills and requires active attendance and participation in exercises, which also require preparation time. 100% attendance is required. The course unit tests both oral and written language skills. Students participate in the teaching in either autumn semester or spring semester.

**Grading:**
Oral and written language proficiencies are tested separately and assessed using the so called KORU-criteria (publication of HAMK University of Applied Sciences, 2006). Separate grades will be awarded for the successful completions of both oral and written portions of the course unit: the possible passing grades are satisfactory skills and good skills (see language decree 481/03). The grades are based on continuous assessment and testing.

**Person responsible:**
See Contact teachers from Languages and Communication’s home page

**Working life cooperation:**
-

**Other information:**
Students sign up for teaching in WebOodi. A student can only sign up for one teaching group. When signing up in WebOodi, it is imperative that the student fills in his/her university email address (paju.oulu.fi), major subject and Swedish grades attained during secondary education in the Further Information field. The student will be notified of a place in the course unit via email prior to the beginning of teaching. 

Persons signing up for the course are expected to have completed the basic course (2 ECTS credits) in written and oral Swedish, i.e. 901001Y. The course is suitable for students who want to improve their Swedish language skills in areas relevant to their academic field and future professional tasks.

**Compulsory**

901001Y-01: Second Official Language (Swedish), Written Skills, 1 op

Voimassaolo: 01.08.1995 -
Opiskelumuoto: Language and Communication Studies
Laji: Course
Vastuuysikkö: Language Centre
Opintokohteen kielet: Swedish
900075Y: Speech Communication, 2 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Language and Communication Studies
Laji: Course
Vastuuysikkö: Language Centre
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
Leikkaavuudet:
   ay900075Y  Speech Communication (OPEN UNI)  2.0 op

Status:
This course unit is compulsory for all students undertaking a BA degree in Subject Teacher Education, Primary Teacher Education, Technology Oriented Teacher Education, Creative Arts Oriented Teacher Education and Music Education. If a student of Education has included this course unit in his/her Bachelor's Degree, he/she must include 900071Y Scientific Communication II in his/her Master's Degree.

ECTS Credits:
2 credits

Language of instruction:
Finnish

Timing:
1st or 2nd year of studies according to the curriculum of the education programme.

Learning outcomes:
Upon completion of the course unit the student should be able to prepare and give an illustrative and understandable oral presentation on a topic relating to his/her own field in a way that suits the audience and the situation. The student should be able to function purposefully in various situations where he/she is working by himself/herself or as a part of a group. He/she should be able to participate in scientific discourse with sound argumentation and analytical listening. He/she should be able to give, receive and process constructive criticism. The student should be able to critically evaluate his/her own oral communication skills and understand the significance of oral communication in university studies, scientific activity and as a part of professional interaction and communication.

Contents:
Presentation exercises, group work, communicator image and its significance, the speech communication situation and speech communication skills, structure of a speech, preparing a speech, goals and distinctive features of scientific interaction, communicating as an expert in scientific and professional contexts, discussion, negotiation and meeting procedures and practices, observation and analysis of speech communication situations.

Mode of delivery:
See Learning activities and teaching methods

Learning activities and teaching methods:
Contact teaching 20 h and independent study ca. 30 h.

Target group:
See Status
Recommended or required reading:
Material subject to a charge delivered by teacher.

Assessment methods and criteria:
Active participation in teaching, independent study and completion of given assignments.

Grading:
pass / fail

410017Y: Digital Media in Teaching and Learning, 2 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: General Studies
Laji: Course
Vastuuyksikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
Leikkaavuudet:

ay410017Y  Digital Media in Teaching and Learning (OPEN UNI)  2.0 op

ECTS Credits:
3 cr

Language of instruction:
Finnish

Timing:
1st year

Learning outcomes:
After completing the course the student:
- recognises the basic concepts of multimedia
- has planned and implemented an educationally relevant multimedia product in a group
- knows how to use commonly available multimedia production software
- discovers opportunities to use multimedia in education

Contents:
- basic concepts in multimedia
- digital audio processing
- digital image processing
- digital video processing
- digistories

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures 10h, small-group sessions 20h, independent study

Target group:
All the students in the faculty

Prerequisites and co-requisites:
No

Recommended optional programme components:
No

Recommended or required reading:
Lectures, groupwork. Study materials will be confirmed at the beginning of the course.

Assessment methods and criteria:
Active participation in contact teaching and practical exercises. A multimedia product.

Grading:
Pass/fail

Person responsible:
Asko Pekkarinen

Working life cooperation:
No

410014Y: Information and communication as a pedagogical tool, 3 op
Information and communication as a pedagogical tool (OPEN UNI)

ECTS Credits:
3 cr

Language of instruction:
Finnish

Timing:
1st year

Learning outcomes:
After completing the course the student knows how to:
- make good use of the technical infrastructure of the university
- use ICT as a tool in teaching and learning
- use basic tools programmes and recognise their pedagogical applicability
- recognise the possibilities and limitations of the new technologies in teaching and learning
- take a critical attitude towards available ICT services

Contents:
- general development of ICT
- using ICT in teaching, pedagogical applications
- word processing as an academic tool
- digital image processing and making of presentations
- future prospects of ICT
- digital portfolio

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures 10 h, small-group sessions 20 h, independent work

Target group:
All the students in the faculty

Prerequisites and co-requisites:
No

Recommended optional programme components:
No

Recommended or required reading:
Lectures. Other study materials will be confirmed at the beginning of the course.

Assessment methods and criteria:
Active participation in the lectures, completing assignments and learning diary.

Grading:
Pass/fail

Person responsible:
Asko Pekkarinen

Working life cooperation:
No
1. ECTS Credits: 
   4 cr

2. Language of instruction: 
   Finnish

3. Timing: 
   1st year, autumn

4. Learning outcomes: 
   After the course the student is able to evaluate the meaning and ethical viewpoints of technology education. S/he also knows how to define the essence of technology from a philosophical perspective and reflect on and evaluate the challenges of technology education. In addition, the student knows how to make tools needed in teaching and education and test the functionality of the tools in practice.

5. Contents: 
   The starting-point is provided by the philosophical views of the essence of technology. They are discussed on a general level from the viewpoint of the philosophy of science, with a focus on their connection with ethics in practical activity. Pedagogical activity is linked to practical activity in the exercises in which the theory is concretised on a material level.

6. Mode of delivery: 
   Face-to-face teaching

7. Learning activities and teaching methods: 
   The course consists of two parts:
   1. Theory, 1 credit (26 h): Lectures on technology education and related areas of education
   2. Practical exercises, 3 credits (54 h): Concretization of technology education by producing tools needed in teaching and learning. The functioning of the tools is tested in connection with Pedagogical Seminar in Technology Education I and teaching practice.

8. Target group: 
   Technology oriented primary teacher education, first year students

9. Prerequisites and co-requisites: 
   None

10. Recommended optional programme components: 
    410076P Pedagogical Seminar in Technology Education I, 
    407034A Pedagogical Seminar in Technology Education II, 
    408023S Pedagogical Seminar in Technology Education III, 
    406034A Crafts / Technical Work and Technology

11. Recommended or required reading: 
    Materials distributed during the course in written and online form.

12. Assessment methods and criteria: 
    Active participation in lectures, demonstrations and exercises as well as production of concrete materials on one’s own.

13. Grading: 
    pass/fail

14. Person responsible: 
    Matti Lindh

15. Working life cooperation: 
    None

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405023Y: Orientation to studies, 1 op

Voimassaolo: 01.08.2006 -
Opiskelumuoto: General Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
Leikkaavuudet: 
   ay405023Y Orientation to studies (OPEN UNI) 1.0 op

ECTS Credits: 
1 cr
Language of instruction: 
Finnish
Timing:
1st year

Learning outcomes:
After completion the student is able to plan the course of their own studies both independently and in cooperation with their fellow students (small-group tutorials).

Contents:
Students gain perspective on the structure, content and study practices of their own education. During the course, students prepare a Personal Study Plan (PSP). Contents are:
- initiating studies
- study goals, progression, structure and content
- professional task areas, finding employment
- PSP

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Small-group sessions 15 h, other 8 h.

Target group:
New students

Prerequisites and co-requisites:
None

Recommended optional programme components:
None

Recommended or required reading:
TBC (handouts and online material)

Assessment methods and criteria:
Active participation in lectures and exercises, completion of PSP.

Grading:
Pass/fail

Person responsible:
Student counsellors and teacher tutors

Working life cooperation:
None

A250523: Education, Basic Studies (TEKNO), 25 op

Voimassaolo: 01.08.2010 -
Opiskelumuoto: Basic Studies
Laji: Study module
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
25 credits

Language of instruction:
Finnish

Timing:
1st year

Learning outcomes:
Having completed the Basic Studies in Education, the student is able to outline and describe analytically pedagogical phenomena using the basic concepts and theories of the classic subareas of education. S/he knows how to use a variety of study and working methods anfd is capable of independent written work and is oriented towards expertise in education.

Contents:
410067P Basic Course in Education, 4 credits
410068P Didactics, 4 credits
410069P Educational Psychology, 4 credits
410070P Sociology of Education, 4 credits
410071P Educational Philosophy, 4 credits
410076P Pedagogical Seminar in Technology Education I, 3 credits
410075P Orientation to Work at School, 2 credits
Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Vary by course.

Target group:
Students in the Technology Oriented Primary Teacher Education Programme

Prerequisites and co-requisites:
None

Recommended optional programme components:
The module of Basic Studies in Education is constituted by the above courses.

Recommended or required reading:
To be agreed on for each course specifically.

Assessment methods and criteria:
Vary by course.

Grading:
pass/fail

Person responsible:
Sinikka Kaartinen

Working life cooperation:
Yes. Includes a 2-credit school practice period, "Orientation to Work at School"

410067P: Basic course in education, 4 op

Voimassaolo: 01.08.2005 -
Opiskelmuoto: Basic Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen oppimateriaali:
Rinne, Risto (1) , , 2004, pakollinen
Rinne, Risto , , 2000, pakollinen
Siljander, Pauli , , 2002, pakollinen
Opintokohteen kielet: Finnish

Leikkaavuudet:
ay410067P Basic course in education (OPEN UNI) 4.0 op

ECTS Credits:
4 credits

Language of instruction:
Finnish

Timing:
1st year
Secondary teacher students 3rd year spring term

Learning outcomes:
After completion of the course, the student
- identifies the most important features of education as a science
- has a basic understanding of the history of education and its main areas of study.
- knows how to use the basic concepts of education and pedagogy and is familiar with issues connected with them
- can relate different sectors of the educational sciences to each other
- is familiar with practical and professional tasks in the field of education and with issues connected to them.

Contents:
- education as a science, main areas and subareas
- basic concepts: development, bildung, teaching, pedagogical activity
history and development of education in Finland
basics of professional growth and development
orientation to practical tasks in education, assumption of a professional identity as a teacher and in other educational tasks.

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures and other contact teaching 18 h, independent work

Target group:
Students in all programmes pursuing basic studies in education

Prerequisites and co-requisites:
None

Recommended optional programme components:
This is the first course in the Basic Studies in Education (25 cr).

Recommended or required reading:
Availability can be checked here.

Assessment methods and criteria:
Lecture or literature exam, or written assignments

Grading:
pass/fail

Person responsible:
Pauli Siljander
Subject teacher education: Katri Jokikokko

Working life cooperation:
None

410068P: Didactics, 4 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail

Opintokohteen oppimateriaali:
Hakkarainen, Kai , , 1999, pakollinen
Kansanen, Pertti , , 2004, pakollinen
Rauste-von Wright, Majaliisa , , 2003, pakollinen
Rauste-von Wright, Majaliisa , , 1994, pakollinen
Uusikylä, Kari , , 2005, pakollinen
Uusikylä, Kari , , 2000, pakollinen

Opintokohteen kielet: Finnish

Leikkaavuudet:
ay410068P Didactics: (OPEN UNI) 4.0 op

ECTS Credits:
4 ECTS

Language of instruction:
Finnish

Timing:
Secondary teacher students 3rd year spring term

Learning outcomes:
After completion the students
- understand the basic concepts related to learning and teaching, their theoretical foundations and significance in practice
- understand the learning process and its cognitive, motivational and social features.
- recognize the teacher's role as a director/guider of learning and are familiar with new teaching models
- are able to analyse the characteristics of a good learner in theory and in practice and are aware of how learning skills can be taught.

Contents:
- basic concepts related to learning and teaching, their theoretical foundations and significance in practice
- the learning process and its cognitive, motivational and social features
- theoretical foundations of guiding learning: the teacher's role as a director of learning and teaching models
- principles of curricular design and lesson-planning
- the characteristics of a good learner in theory and in practice: how learning skills can be taught
- basic models of ICT in teaching and learning

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures and other contact teaching 18 h and independent studies

Target group:
Students in all programmes pursuing basic studies in education

Prerequisites and co-requisites:
No

Recommended optional programme components:
The course is part of the basic studies in education (25 cr).

Recommended or required reading:
Applicable parts:
Course material availability can be checked here.

Assessment methods and criteria:
Exam

Grading:
pass/fail

Person responsible:
Sanna Järvelä

Working life cooperation:
No

410069P: Educational psychology, 4 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelut: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
Leikkaavuudet:
ay410069P  Educational psychology: (OPEN UNI)  4.0 op

ECTS Credits:
4 cr

Language of instruction:
Finnish

Timing:
1st year
Secondary teacher students 3rd year spring term

Learning outcomes:
- the student knows the central concepts and research areas and topics in educational psychology
- the student understands the special nature of educational psychology and can estimate the opportunities and limitations in applying it in educational work

Contents:
- the relationship between educational psychology and psychology, educational research and civilisation studies as well as other subareas of education
- object of research and basic concepts: growth, education, development and developmental processes, and psychological adulthood as a form of personal sophistication
- psychological theory of growth and development
- professional practice in educational psychology and its application in issues relating to growth and development

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures and other teaching 18 h, independent studies

Target group:
Students in all programmes pursuing basic studies in education

Prerequisites and co-requisites:
No

Recommended optional programme components:
The course is part of the basic studies in education (25 cr).

Recommended or required reading:
Applicable parts:

Early Childhood Education students study one of the Lehtinen, E. books. Course material availability can be checked here.

Assessment methods and criteria:
Exam

Grading:
pass/fail

Person responsible:
Hannu Soini

Working life cooperation:
No

Other information:
In early childhood education, this course is 2 cr in scope (lectures only).
410070P: Sociology of education, 4 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
Leikkaavuudet:
ay410070P Sociology of education:Society, educational institutions and social interaction (OPEN UNI) 4.0 op

ECTS Credits:
4 credits

Language of instruction:
Finnish

Timing:
1st year
Secondary teacher students 4th year autumn term

Learning outcomes:
After completion the student will be able to visualize:
- the links between educational sociology, sociology and education.
- basic issues and concepts in social sciences and educational sociology
- the Finnish education system and educational politics as a part of social politics

Contents:
- central concepts in social sciences
- basic concepts and issues in educational sociology
- sociology of education: links to education and sociology
- the roles of socialization and education
- classic trends in the educational sociology: structuralism, conflict-theory and critical sociology, and socialization theory and interaction
- the Finnish education system: past, present and future
- education politics as a part of social politics
- theoretical and practical issues in educational sociology: school practices (interaction-based school class research), hidden curriculum, equality of education, identity, normality and deviation.

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures and other teaching 18 h and independent study.

Target group:
Students in all programmes pursuing basic studies in education.

Prerequisites and co-requisites:
No

Recommended optional programme components:
The course is part of the basic studies in education (25 cr).

Recommended or required reading:

Assessment methods and criteria:
Exam
Grading:
pass/fail

Person responsible:
Veli-Matti Ulvinen

Working life cooperation:
No

410071P: Educational philosophy, 4 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Basic Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
Leikkaavuudet:
  ay410071P  Educational philosophy: (OPEN UNI)  4.0 op

ECTS Credits:
4 cr

Language of instruction:
Finnish

Timing:
1st year
Secondary teacher students 4th year autumn term

Learning outcomes:
The students are familiar with the main areas of educational philosophy and how they give rise to educational problematicisation and question formulation as well as research and results. The students are able to identify, analyse and solve ethical and philosophical problems in education and teaching work and are able to critically assess previously suggested solutions.

Contents:
- Educational philosophy as an area of educational sciences
- the nature of philosophy as a science, philosophical questions and the most important sub-areas.
- Objectives in education
- Historically important trends in academic study of educational philosophy
- The ethical disposition of educational, schooling and teaching, and question formulation in pedagogical activity
- Educational philosophy and ethical perspectives as a platform for professional ethics in pedagogical activity.

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures and other teaching 18 h and independent studies.

Target group:
Students in all programmes pursuing basic studies in education.

Prerequisites and co-requisites:
No

Recommended optional programme components:
The course is part of the basic studies in education (25 cr).

Recommended or required reading:
Applicable parts:


Etiikka koulun arjessa. (2002)


Course material availability can be checked here.

**Assessment methods and criteria:**
Participation in lectures. Exam.

**Grading:**
pass/fail

**Person responsible:**
Eetu Pikkarainen

**Working life cooperation:**
No

**Other information:**
For Early childhood education students this course is 3 ECTS; in addition to lectures they will complete Early Childhood Education - theoretical approaches, 2 ECTS worth of exercises.

### 410076P: Pedagogical Seminar in Technology Education I, 3 op

**Voimassaolo:** 01.08.2006 -

**Opiskelumuoto:** Basic Studies

**Laji:** Course

**Vastuuysikkö:** Faculty of Education

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen oppimateriaali:**
Lindh, Matti, , 1996
Lindh, Matti, , 1997
Lindh, Matti, , 1984
Sutton, Clive, , 1992

**Opintokohteen kielet:** Finnish

**ECTS Credits:**
3 cr

**Language of instruction:**
Finnish

**Timing:**
1st year

**Learning outcomes:**
After the course the student knows how to plan and carry out teaching episodes based on research on technology education. The students knows how to analyse and evaluate teaching situations and reflect on the phenomena and issues taking place in them from the viewpoint of technology education.

**Contents:**
Familiarisation with technology learning with a focus on educational psychology. The inquiring teacher and significance of awareness of pupil needs in primary school.

**Mode of delivery:**
Face-to-face teaching

**Learning activities and teaching methods:**
Small group sessions 20 h, individual teaching 16 h, work placement 2 h.
The seminar focuses on the technology learning process when the pupils are supposed to learn some technological entity. Making use of a self-made assembly kit, a teaching episode is planned and carried out, with literature produced on technology education research providing the theoretical basis. The teaching episode is analysed based on this, and the results of the analysis are presented in the form of a learning diary.

**Target group:**
Technology oriented primary teacher education

**Prerequisites and co-requisites:**
None

**Recommended optional programme components:**

**Recommended or required reading:**
Technology Education literature, self-produced educational materials

**Assessment methods and criteria:**
Literature, production and testing of learning materials at school, preparation of a pedagogical portfolio.

**Grading:**
pass/fail

**Person responsible:**
Matti Lindh

**Working life cooperation:**
Yes. The course includes giving a teaching session at school (2 h).

410075P: Orientation to Work at School, 2 op

**Voimassaolo:** 01.08.2006 -
**Opiskelumuoto:** Basic Studies
**Laji:** Practical training
**Vastuuysikkö:** Faculty of Education
**Arvostelu:** 1 - 5, pass, fail
**Opintokohteen kielet:** Finnish

**ECTS Credits:**
2 credits

**Language of instruction:**
Finnish

**Timing:**
School experience orientation takes place during the spring term of the first year.

**Learning outcomes:**
After completion of the course, the student is able to:
- report on the activities of a class
- critically describe his/her conception of teachership and education
- assess the activity of a class by means of observation
- understand the contents and significance of curricula in school education

**Contents:**
School experience orientation is a part of the studies in the major subject at the Bachelor level. It is also a part of the pedagogical studies in teacher training. All the student teachers complete this practice period, irrespective of prior work experience.
The principal theme of this practice period is the pupil as a member of the classroom community. The aim is for the students to build upon the themes and their individual levels of understanding of Pedagogical Seminar I by working in a concrete classroom context. In addition, this practice period introduces the students to the curriculum and its flexible implementation in teaching.

School experience orientation offers the students a guided opportunity to investigate child development and interaction in a classroom environment, as well as relevant socio-cultural phenomena, based on study assignments formulated in Pedagogical Seminar I. In the School experience orientation period, the students are introduced to the teaching profession by participating in the teaching and learning activities of their own student class groups and those of neighbouring classes (cells).

**Mode of delivery:**
Face-to-face teaching

**Learning activities and teaching methods:**

**Place:** Oulu Teacher Training School, grades 0-6.

**Target group:**
Primary teacher education, 1st year students

**Prerequisites and co-requisites:**
410069P Educational psychology

**Recommended optional programme components:**
Participation in Pedagogical Seminar I.

**Recommended or required reading:**
Same as in Pedagogical Seminar I

**Assessment methods and criteria:**
Duration of the period: two calendar weeks

**Description of the activities:** During Orientation to School Work, the student works together with the staff of the Teacher Training School and his/her fellow students.

The student observes and monitors the activity in the class based on the learning assignments agreed on in Pedagogical Seminar I. The students gets to know school as a growth and learning environment and is familiarised with the school curriculum, especially its general part.

The period starts with a cell-specific joint planning session, discussing the course and supervision arrangements and agreeing on the working classes where the planning the cintinues. The planning is attended by all the persons taking part in the school work period. During this period, the student gets to know the class and carries out the monitoring tasks given in Pedagogical Seminar I.

There are 40 hours of activities tied to a time and place in this period, consisting of the following:
- In cooperation with Liikenneturva, the students in each class give a traffic education lesson to the pupils. There is a two-hour lecture on the contents of this lesson at a time to be specified later.
- The students also give small-scale simultaneous teaching, small group teaching or a jointly implemented teaching episode or lesson.
- In addition to the above, the students also monitor the activities in their own and neighbouring classes for a total of 36 hours.

**Grading:**

**Assessment:** The class teacher assesses the student’s performance on the scale pass/fail based on assessment discussions and the pedagogical portfolio. An entry on a “pass” is made in the practice card. The card is also signed by the staff member who delivered Seminar I. There are specific instructions available on the composition and contents of the pedagogical portfolio. Its composition is also discussed in Pedagogical Seminar I.

A fall may need to be retaken or supplemented. A failed school experience period can be retaken twice. There are specific instructions on supplementation or retakes. If a registration for the period is not cancelled, it is considered a fail.

**Evaluation seminar:** At the end of the Orientation to School Work, an evaluation seminar is organised at the Teacher Training School to analyse the fulfilment of the goals for the period and to discuss how the
experiences can be utilised for future school experience periods. The seminar is attended by all the persons who contributed to the school experience period. A secretary chosen from among the students keeps minutes in the evaluation seminar, and the document is delivered to the members of the school experience team in electronic form within one week of the seminar.

**Person responsible:**
Vesa-Matti Sarenius, Auli Halme and Erkki Pekkala

**Working life cooperation:**
Yes. The school experience period is arranged at the Oulu Teacher Training School. For more information, see "Learning activities and teaching methods"

**Other information:**
**Registration:** Registration for the autumn period is by the end of September, and for the spring period by the end of previous November. The registration takes place via Weboodi. The registration form is available in the time interval mentioned in an e-mail message and on the practice website. The school experience periods are organised in groups. The details on each group's dates are to be found on the teaching practice website for primary teacher education.
A registration that is not cancelled is considered a "fail".

**Information seminar:** School experience orientation will begin with an information meeting to be held in the canteen for the grades 0-6 at the Teacher Training School.

### A250533: Education, Intermediate Studies (TEKNO), 45 op

- **Voimassaolo:** 01.08.2010 -
- **Opiskelumuoto:** Intermediate Studies
- **Laji:** Study module
- **Vastuuysikkö:** Faculty of Education
- **Arvostelu:** 1 - 5, pass, fail
- **Opintokohteen kielet:** Finnish

**ECTS Credits:**
40 credits

**Language of instruction:**
Finnish

**Timing:**
2nd and 3rd year

**Learning outcomes:**
Upon completion of the intermediate studies in education, the student knows how to apply and evaluate the approaches of educational research to pedagogical phenomena. S/he is capable of scientific data acquisition and argumentation and knows how to report scientific results.

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**Mode of delivery:**
Face-to-face teaching

**Learning activities and teaching methods:**
Vary by course

**Target group:**
Students in the Technology Oriented Primary Teacher Education Programme

**Prerequisites and co-requisites:**
Basic Studies (25 credits) in Education

**Recommended optional programme components:**
Comprises the Intermediate Studies courses.

**Recommended or required reading:**
To be agreed on for each course.

**Assessment methods and criteria:**
Vary by course

**Grading:**
0 - 5

**Person responsible:**
Sanna Järvelä

**Working life cooperation:**
Yes. Includes a 3-credit school work period, School Work in the Bachelor Phase I.

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**407040A: Basic Course in Quantitative Research, 5 op**

- **Voimassaolo:** 01.08.2011 -
- **Opiskelumuoto:** Intermediate Studies
- **Laji:** Course
- **Vastuuysikkö:** Faculty of Education
- **Arvostelu:** 1 - 5, pass, fail
- **Opettajat:** Peltonen, Jouni Aslak
- **Opintokohteen kielet:** Finnish

**Leikkaavuudet:**
- ay407040A Basic course in quantitative research (OPEN UNI) 5.0 op

**ECTS Credits:**
5 cr

**Language of instruction:**
Finnish

**Timing:**
2. or 3. year

**Learning outcomes:**
Having completed the course, the student knows how to
- define the basic ideas in the approaches and methods of research in the human sciences from the viewpoint of different traditions of science
- plan and implement the main stages of a simple quantitative study
- evaluate and interpret quantitative studies conducted by others

**Contents:**
The course is divided into three parts:

**407040A-01 Basis of research (2 cr.)**
- basic features of empirco-analytical research
- role of theory in research
- main stages of the research process
- formulating and shaping the research question
- types of research
- data collection
- accountability/reliability analysis

**407040A-02 Statistical analysis (2 cr.)**
- description of one- and two-dimensional empirical distribution
foundations of statistical deduction
estimation
statistical testing

407040A-03 Exercises (1 cr.)
enhancing knowledge of content areas in 1 and 2

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
1. Lectures 18 h
2. Lectures 20 h
3. Exercises: Small group sessions 16 h

Target group:
Students in all programmes pursuing Intermediate Studies in Education (Music Education)

Prerequisites and co-requisites:
None

Recommended optional programme components:
Thesis studies support the writing of a Bachelor's thesis

Recommended or required reading:
Course material availability can be checked here.

Assessment methods and criteria:
1. Exam
2. Exam
3. Active participation in small group sessions, an essay

Grading:
0 - 5

Person responsible:
Jouni Peltonen

Working life cooperation:
None

Other information:
Education Programme: if Research Methods I has been completed in the major subject studies, the student will complete equivalent credits worth of intermediate level studies in minor subject literature instead.
Early Childhood Education Programme: Small groups of their own, with Hannele Karikoski and Asko Pekkarinen in charge.

Compulsory

407040A-01: Basis of research, 2 op

Voimassaolo: 01.08.2012 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
Leikkaavuudet:
    ay407040A-01  Basis of Research (OPEN UNI)  2.0 op

Ei opintojaksokuvauksia.

407040A-02: Statistical analysis, lecture, 2 op
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Leikkaavuudet:
ay407040A-02  Statistical analysis, lecture (OPEN UNI)  2.0 op

407040A-03: Exercises, 1 op

Voimassaolo: 01.08.2012 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
Leikkaavuudet:
ay407040A-03  Exercises (OPEN UNI)  1.0 op

Ei opintojaksokuvauksia.

407041A: Basic Course in Qualitative Research, 5 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opettajat: Anu Alanko
Opintokohteen kielet: Finnish
Leikkaavuudet:
ay407041A  Basic course in qualitative research (OPEN UNI)  5.0 op

ECTS Credits:
5 cr

Language of instruction:
Finnish

Timing:
2. or 3. year

Learning outcomes:
Having completed the course, the student knows how to
- define the basic ideas in the approaches and methods of research in the human sciences from the viewpoint of different traditions of science
- plan and implement the main stages of a simple qualitative study
- evaluate and interpret qualitative studies conducted by others

Contents:
- formulating and shaping research questions
- approaches to qualitative research
- different approaches to qualitative research
- progression of the research process
- interviews and observation in qualitative research
407041A-01 Lectures 3 cr
407041A-02 Exercises 2 cr

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures 20 h, small group sessions 16 h

Target group:
Students in all programmes pursuing Intermediate Studies in Education (Music Education)

Prerequisites and co-requisites:
None

Recommended optional programme components:
Thesis studies support the writing of a Bachelor's thesis

Recommended or required reading:
Ruusuvuori, J. & Tiittula, L. (toim.)(2005). Haastattelu. Tutkimus, tilanteet ja vuorovaikutus. Course material availability can be checked here.

Assessment methods and criteria:
Exam, active participation in small group sessions, an essay

Grading:
0 - 5

Person responsible:
Leena Syrjälä

Working life cooperation:
No

Other information:
Education Programme: if Research Methods I has been completed in the major subject studies, the student will complete equivalent credits worth of intermediate level studies in minor subject literature instead.
Early Childhood Education Programme: Small groups of their own, with Hannele Karikoski and Asko Pekkarinen in charge.

Compulsory

407041A-01: Basic course in qualitative research, lecture, 2 op

Voimassaolo: 01.08.2012 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
Leikkaavuudet:
ay407041A-01 Basic course in qualitative research, lectures (OPEN UNI) 2.0 op
Ei opintojaksokuvauksia.

407041A-02: Basic course in qualitative research, exercises, 3 op

Voimassaolo: 01.08.2012 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
Leikkaavuudet:

ay407041A-02  Basic course in qualitative research, exercises (AVOIN YO)  3.0 op

Ei opintojaksokuvauksia.

407024A: Teacher as a Pedagogical Thinker and Agent, 3 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen oppimateriaali:
Clark, Christopher M. , , 1995
Houston, W. Robert, Haberman, Martin & Sikula, John (eds.), , 1990
Sikula, John, Buttery, Thomas J. & Guyton, Edith (eds.), , 1996
Van Manen, Max , , 1991
Van Manen, Max , , 1991
Opintokohteen kielet: Finnish

ECTS Credits:
3 cr

Language of instruction:
Finnish

Timing:
2nd year

Learning outcomes:
Upon completion of the course the student knows how to
• justify her/his pedagogical activity using the terminology of educational research
• analyse the theory on the pedagogical thinking of teachers and current research data
• apply knowledge on groups in her/his teaching

Contents:
During the course we learn about the nature of the teacher's knowledge and pedagogical thought, core concepts and recent research. We learn conceptual tools that help us examine pedagogical work especially in terms of learner management and communication. These themes also cover recent topics such as work space and peace, bullying and friendship in schools. In addition, we may look at various issues depending on student interest.
The following issues are discussed in this course:
• teacher knowledge, its nature and forms
• pedagogical relationship and tact
• recent issues: teacher's and school's educational practices

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures 32 h, literature study 20 h, essay 28 h.

Target group:
Primary teacher students

Prerequisites and co-requisites:
School experience, Bachelor level

Recommended optional programme components:
None

Recommended or required reading:
The availability of the literature can be checked in this link.

Assessment methods and criteria:
Participation in lectures and group discussions, an essay on the lectures and literature

Grading:
0 - 5

Person responsible:
Minna Uitto and Katri Jokikokko

Working life cooperation:
None

407025A: Encountering Diversity, 3 op

Voimassaolo: 01.08.2005
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
3 cr

Language of instruction:
Finnish

Timing:
2nd year

Learning outcomes:
The students are proficient in the core concepts and theories of multicultural education and intercultural pedagogy. They are able identify inequal practices in working life and try to exert an influence on them. They evaluate their own intercultural competence and its development as a lifelong process.

Contents:
- dimensions of diversity and cultural identity
- human rights and equality at school
- global education: main approaches and concepts
- challenges of intercultural education and teachers' intercultural competence

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures 16 h, small group sessions 10 h, independent study.

Target group:
Primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
None

Recommended or required reading:
To be confirmed at the course start

Assessment methods and criteria:
Active participation, book exam or essay

Grading:
pass/fail

Person responsible:
Maria-Liisa Järvelä and Katri Jokikokko

Working life cooperation:
None

407026A: Special Education, 3 op

Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail

Opintokohteen oppimateriaali:
Ahvenainen, Ossi , , 2005
Ahvenainen, Ossi , , 1999
Ikonen, Oiva , , 2000
Jahnukainen, Markku (toim.), , 2001
Murto, Pentti, Naukkarinen, Aimo & Saloviita, Timo (toim.), , 2001
Hautamäki, Jarkko (toim.), , 2001
Ikonen, Oiva & Virtanen, Pirkko (toim.) , , 2001
Pulkkinen, Lea , , 2002
Räsänen, Pekka et al. (toim.), , 2004
Sinkkonen, Jari & Pihlaja, Päivi (toim.), , 1999

Opintokohteen kielet: Finnish

ECTS Credits:
3 cr

Language of instruction:
Finnish

Timing:
2nd year

Learning outcomes:
- student knows how to observe and, based on documents, implement pedagogical evaluation
- student knows how to compose instructions for him/herself to encounter general, reinforced and special support as his/her own tool
- student knows how to search for more information and identifies the need for multiprofessional support
- student knows how to define inclusion and how to discuss the theme using relevant scientific terms and publications

Contents:
- ideologies, values and principles underlying special education
- general, special and reinforced support, and care, teaching and rehabilitation
- cooperation, multiprofessionalism and educational partnership
- familiarisation with the field, target groups and practice of special education
- responding by pedagogical means to the need for special support
- pupil welfare work at schools
- inclusive education

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures 16 h, small group sessions 10 h, independent work.

Target group:
Primary teacher students

Prerequisites and co-requisites:
Recommended optional programme components:
None

Recommended or required reading:
The availability of the literature can be checked from this link.

Assessment methods and criteria:
Participation in face-to-face teaching and excursions, learning assignments, book and lecture exams.

Grading:
Pass/fail

Person responsible:
Marko Kielinen

Working life cooperation:
None

407027A: Guidance of Learning, Planning and Evaluation of Teaching, 3 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen oppimateriaali:
Järvelä, Sanna, Häkkinen, Päivi & Lehtinen, Erno (toim.), , 2006
McGilly, Kate (ed.), , 1994
Opintokohteen kielet: Finnish

ECTS Credits:
3 cr

Language of instruction:
Finnish

Timing:
2nd year

Learning outcomes:
Having completed the course, the student knows how to plan a teaching module for the future school that supports the development of a skilled learner. S/he knows how to explain the main foundations of learning theory and integrate them with the planning, supervision and evaluation of teaching. S/he knows how to use ICT and justify its use in pedagogical terms. S/he knows how to work collaboratively.

Contents:
Planning of teaching and guidance
  ● self-regulated learning
  ● collaborative learning
  ● learning to be an expert
  ● ICT in support of learning

Mode of delivery:
Blended teaching
Learning activities and teaching methods:
An initial exam, 12 hours of contact teaching, collaborative online and face-to-face work between the contact sessions

Target group:
Primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
The course is part of the whole formed by "Pedagogical Seminar II" and "Bachelor-level School Experience".

Recommended or required reading:
See blog http://ooosa2012.wordpress.com for the course material.

Assessment methods and criteria:
Participation in contact teaching and collaborative work.

Grading:
pass/fail

Person responsible:
Pirkko Hyvönen

Working life cooperation:
None

407034A: Pedagogical Seminar in Technology Education II, 3 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen oppimateriaali:
International Technology Education Association, , 2000
Kumpulainen, Kristiina (ed.), , 2000
Kantola, Jouko & Kananoja, Tapani (eds), , 2002
Kananoja, Tapani, Kari, Jouko & Parikka, Matti (toim.), , 1998
Lindh, Matti, , 1997
Norman, Eddie et al. (eds.), , 1995
Norman, Eddie et al. (eds.), , 2000
Technology for All Americans Project , and International Technology Education Association, , 1996
Opintokohteen kielet: Finnish

ECTS Credits:
3 cr

Language of instruction:
Finnish

Timing:
1st year

Learning outcomes:
After the course the student knows how to test, evaluate and plan new learning materials and tools for technology education and develop and apply curricula in practice from the viewpoint of technology education. The student knows how to produce and present a written scientific seminar thesis on a topic related to technology education.

Contents:
During the seminar the students are familiarised with issues connected with technology education and learning. Through a variety of examples, experiments and demonstrations, learning materials and curricula are developed for technology education, and they can be tested in practical teaching situations. Via educational research, the seminar in technology education is connected with thesis work in technology education.

**Mode of delivery:**
Face-to-face teaching

**Learning activities and teaching methods:**
Small group sessions 20 h, independent work 16 h, work placement 2 h.

**Target group:**
Technology Oriented Primary Teacher Education

**Prerequisites and co-requisites:**
None

**Recommended optional programme components:**

**Recommended or required reading:**
Online materials and materials distributed in the seminar

**Assessment methods and criteria:**
Active participation in lectures, demonstrations and exercises as well as construction of materials by the student and testing them in a practical teaching situation, writing a report on the experiment.

**Grading:**
pass/fail

**Person responsible:**
Matti Lindh

**Working life cooperation:**
Yes. The course includes a teaching session at school (2 h).

407029A: Infant and Primary Education, 3 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen oppimateriaali:
Högström, Barbro & Saloranta, Outi (toim.), , 2001
Järvinen, Heljä , , 1993
Opetushallitus, , 2000
Opetushallitus, , 2004
Saloranta, Outi (toim.), , 2002
Opintokohteen kielet: Finnish

ECTS Credits:
3 cr

Language of instruction:
Finnish

Timing:
2nd year

Learning outcomes:
The student

- is familiar with the theoretical foundations of infant and primary education
- is able to identify and adopt teaching principles and methods suitable for the targeted age-group
- is familiar with different methods in teaching reading and writing skills
- knows principles and practices of cooperation between the school and the home.

Contents:

Issues discussed in this course:

- main concepts of infant and primary education
- theoretical premises and practical applications: play, project work and learning to read and write
- cooperation between the home and the school

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

Lectures 20 h, small group sessions 12 h and independent study.

Target group:

Primary teacher students

Prerequisites and co-requisites:

None

Recommended optional programme components:

None

Recommended or required reading:

Esiopetuksen opetussuunnitelman perusteet. (2000)

The availability of the literature can be checked from this link.

Assessment methods and criteria:

Active participation in contact teaching and exam.

Grading:

0 - 5

Person responsible:

Riitta-Liisa Korkeamäki and Hannele Karikoski

Working life cooperation:

None

407030A: Bachelor's Thesis, 9 op

Voimassaolo: 01.08.2005 - 31.07.2015
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opinkohteen kielet: Finnish
Leikkaavuudet:

442164A Bachelor's thesis 10.0 op

ECTS Credits:

9 cr

Language of instruction:

Finnish

Timing:
Learning outcomes:

- the student knows how to formulate a research problem
- the student knows how to compose a research plan on her/his chosen educational topic
- the student can use relevant literature for a theoretical examination of her/his research topic
- the student is familiar with the basics of scientific writing and can use them to write a thesis
- the student prepares a Bachelor's thesis
- the student is able to act as an opponent for another student

Contents:

The course consists of the following:

- preparing a research plan
- conducting research
- writing a research report
- acting as peer opponent and assessor of a thesis
- writing the maturity test

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

Seminar session approx. 30 h, independent work 210-240 h

Target group:

Faculty of Education students

Prerequisites and co-requisites:

Basic Studies (25 credits) in Major Subject, Scientific Communication I and Basic courses in qualitative and quantitative research (started)

Recommended optional programme components:

The course is part of the Intermediate Studies in Major Subject

Recommended or required reading:

Literature for the Bachelor’s thesis, research guides
In technologically oriented primary teacher education, the course materials are the same as in Pedagogical Seminar I.

Assessment methods and criteria:

Construction and presentation of research plan, writing and presentation of thesis, participation in seminar sessions, acting as a peer opponent, writing of the maturity test

Grading:

0 - 5

Person responsible:

Minna Sääskilahti and the leaders of seminar groups

Working life cooperation:

None

Other information:

For details on current Bachelor’s and Master’s thesis groups, see [www.oulu.fi/ktk/opinnaytetyot](http://www.oulu.fi/ktk/opinnaytetyot)

407037A: School Work in the Bachelor Phase I, 3 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Practical training
Vastuuyksikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
3 + 3 credits (phases I and II)

**Language of instruction:**
Finnish

**Timing:**
School Work in the Bachelor Phase is scheduled for the autumn or spring term of the second year, depending on the group.

**Learning outcomes:**
Having completed the course, the student
- is capable of analysing and reporting on his own view of teachership and education
- knows how to explain the significance of responsibility in pedagogical activity
- knows how to plan and implement teaching based on the curriculum
- knows how to evaluate the special characteristics of different subjects in teaching and is familiar with cross-curricular themes
- is able to assess pupils’ learning
- is able to assess his/her own activity as a teacher
- knows how to apply collegial working methods in his/her activities

**Contents:**

**Contents and themes:**
School Work in the Bachelor phase is part of the Multidisciplinary Studies in the Subjects and Crosscurricular Themes Taught in Basic Education (3 credits) and Intermediate Studies in Education (3 credits)
The predominant theme in this course is teaching and learning. The purpose is that the student should deepen and enrich the thematics introduced in the courses "Guidance of Learning, Planning and Evaluation of Teaching" and "Pedagogical Seminar II" and its personal understanding by working in a concrete school and classroom context. Other themes to emerge in this course include different learners, problems of learning and pupil welfare.
School Work in the Bachelor phase offers the student a supervised opportunity to practice the basic skills, planning, implementing and evaluation of teaching. The student is familiarised with both collaborative and independent planning of lessons and larger teaching modules, with flexible situationally conditioned implementation of his/her own teaching and with critical evaluation.
Based on her/his own experience, the student has a good opportunity to study, together with peer students and his/her supervisors, the main phenomena and concepts of pedagogical activity, such as pedagogical relationship, pedagogical tact, encountering the child and teacher responsibility. The student also has an opportunity to observe and consider how educationan research and its results are linked to the teacher's work.

**Mode of delivery:**
Face-to-face teaching

**Learning activities and teaching methods:**

**Description of the activities:** The extent of the course is 160 hours, half of which consists of school work, observation of lessons and supervisions tied to a time and place.
Depending on the grade and resourcing of lessons, school work in the Bachelor phase involves teaching in either mathematics or mother tongue. Each student also teaches one of the arts or crafts subjects (physical education, visual art, music, textile work or technical work). In addition to these, s/he also teaches some other subject. S/he will give a total of 20 lessons, including 8 lessons given as a group or in pairs, and 12 lessons given during the independent school work weeks. In addition to giving lessons, each student also observes another arts/crafts subject for the duration of four lessons.
The remaining 56 hours of school work tied to a time and place consists of active observation of classes in the student's home class and of supervision given by the class teacher or lecturer in mathematics or mother tongue education.
The student's independent teaching work is expanded gradually during the course. At the start of the course the student works in a group formed by the peer students and the class teacher, with an increased independent share later on. In this way the five calendar weeks are composed as follows:
- **The 1st week** is an observation week. At the end of the observation week, the students working in the same class put together two lessons related to cross-curricular themes.
- **The 2nd week** is a pair week. The student plans and implements six lessons together with his/her pair.
- **The weeks 3 to 5** are individual weeks. During these weeks the student plans and implements 12 lessons in either mathematics or mother tongue, one arts/crafts subject and a specifically determined third subject. All the subjects to be taught by a student are to be found on the practice list.
An effort is made in this course to think up and experiment various teaching methods applicable for different learners and based on the special characteristics of different subjects and cross-curricular themes. 

**Supervision:** The course involves supervision by the teachers at the Teacher Training School and by the Faculty in subject didactics in either mathematics or mother tongue teaching.

**Target group:**
2nd-year primary teacher students

**Prerequisites and co-requisites:**
Before School Work in the Bachelor Phase, 50 credits of Bachelor studies must have been completed, including Mathematics Didactics: part I (3 credits), Literature and Reading (3 credits), Pedagogical Seminar I (3 credits) and Orientation to School Work (2 credits). The courses must have been completed before registration for school work.

**Recommended optional programme components:**
407028A Pedagogical Seminar II (3 credits) is taken simultaneously with this practice period.

**Recommended or required reading:**
Study materials for Pedagogical Seminar II

**Assessment methods and criteria:**

**Place:** Oulu Teacher Training School, grades 0-6

**Grading:**

**Assessment:** The class teacher and other supervisors assess the course on the scale pass/fail based on assessment discussions and the pedagogical portfolio. An entry on a "pass" is made on the student's practice card. The practice card is also signed by the lecturer in mathematics or mother tongue education, and the student acknowledges on it the completion of supervision in subject didactics. There are specific instructions on the composition and contents of the pedagogical portfolio.

A fail must be retaken or supplemented. A failed school work period can be retaken twice. There are specific instructions on retaking or supplementing a failed course. A registration that is not cancelled is considered a fail.

**Person responsible:**

**Responsible persons:**
Vesa-Matti Sarenius, Auli Halme and Erkki Pekkala

**Working life cooperation:**
School work is a work placement period.

**Other information:**

**Registration:** Registration for the spring school work periods is by the end of previous November, and for the autumn periods by the end of May.

The school work periods are organised in groups. The details on the scheduling of each group can be found on teaching practice website for primary teacher education. Registration for school work is done on Weboodi. The registration form is available for a period of time that will be announced by e-mail and on the practice website. The registration form must be filled in carefully. If not cancelled, a registration will be considered a fail.

**Duration of the period:** five calendar weeks

**Information meeting:** The school work in the Bachelor phase will start with an information meeting in the canteen for grades 0-6 in the Teacher Training School.

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**A256403: Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education (TEKNO), 65 op**

**Voimassaolo:** 01.08.2010 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Study module

**Vastuuysikkö:** Faculty of Education

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen kielet:** Finnish

**ECTS Credits:**
60 credits
Language of instruction:
Finnish

Timing:
1st, 2nd and 3rd year

Learning outcomes:
Student
- can explicate his/her understanding of the subject knowledge to the pupils on elementary school grades 0–6.
- is able to use various teaching methods and utilise learning environments in different school subjects and cross-curricular themes.
- is able to judge the applicability of his/her own teaching within the framework of the national core curriculum.
- is able to plan, apply and assess subject matter thought for primary level.

Contents:

Humanities Module

ECTS: 15 cr.
Assessment: 0-5
This module crystallizes the three central perspectives in primary teacher education: values, social awareness and communication. Students familiarize themselves with the contents and pedagogy of the different subjects to gain the competence needed to enhance pupils' language-based learning and interaction skills. Further, students acquire a knowledge base and assessment skills that support their ethical development, empower them to become active participants in democratic society and promote human rights. Courses:
406020A Mother Tongue and Literature (7 credits)
406021A Drama Pedagogy (2 credits)
406022A History (3 credits)
406023A Religion OR
406024A Philosophy/Ethics (2 credits)
407038A School Work in the Bachelor Phase II (1 credit)

Science Module

ECTS: 15 cr.
Assessment: 0-5
Studies in the Science Module aim at familiarizing students with science and mathematics teaching and with working methods appropriate for schools and their development. Students learn to perceive, study, model and explain scientific phenomena and events. In addition, they will understand the significance of mathematics and natural sciences in the context of pupil development and education.
Teaching within the module focuses on key issues that enhance student abilities and curriculum development, didactics of the various subjects and implications of didactic research for teaching. Teaching may also involve integration of shared projects involving a number of different courses. Results and experiences of these projects can then be utilized in teaching practice.
Courses:
406025A Mathematic Education: Part I (3 credits)
406026A Mathematic Education: Part II (2 credits)
406027A Physics and Chemistry (4 credits)
406028A Biology (2 credits)
406029A Geography (2 credits)
406030A Health Education (1 credit)
407038A School Work in the Bachelor Phase II (1 credit)

Arts and Crafts Module

ECTS: 30 cr.
Assessment: 0-5
Studies in the Arts and Crafts Module provide students with such fundamental knowledge and skills in arts and crafts as will allow them to carry out and develop the basic educational curriculum in line with pupil achievement. Another goal is to foster an understanding of the educational significance of the different arts and the skill building process from the perspective of child development.
Courses:
406031A Music (8 credits)
406032A Art (7 credits)
406040A Crafts/Technical Work and Technology (7 credits)
406035A Physical Education (7 credits)
407038A School Work in the Bachelor Phase II (1 credit)
Optional
406033A Crafts/Textile Work/Technology (7 credits)

Mode of delivery:
Learning activities and teaching methods: 
Vary by course

Target group: 
Students in the Technology Oriented Primary Teacher Education Programme

Prerequisites and co-requisites: 
None

Recommended optional programme components: 
Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education.

Assessment methods and criteria: 
Vary by course

Grading: 
0 - 5

Person responsible: 
Matti Lindh

Working life cooperation: 
Yes (practice with teaching relevant subjects in the School Work in the Bachelor Phase)

406020A: Mother Tongue and Literature, 7 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opettajat: Sääskilahti, Minna Susanna
Opintokohteen oppimateriaali:
Suojala, Marja & Karjalainen, Maija (toim.), , 2001
Gruñnthal, Satu & Pentikäinen, Johanna (toim.), , 2006
Harmanen, Minna & Siiroinen, Mari (toim.), , 2006
Huhtala, Liisi (toim.), , 2003
Opintokohteen kielet: Finnish

ECTS Credits: 
7 credits

Language of instruction: 
Finnish

Timing: 
1st and 2nd year

Learning outcomes: 
The aim of studies is to arouse students' interest in language and to make them multiskilled intermediaries of linguistic culture, who possess the competence to develop the linguistic abilities of children. To this end, students familiarize themselves with Finnish and literature as school subjects, together with the contents, methods and background theories of communication teaching, primary level reading and literature.

406020A-01 Literature and reading (3 credits), learning outcomes: 
This course focuses on the primary level curriculum and helps students gain an understanding of the role of literature in childhood development and education. Using literary and interpretation pedagogy, a variety of texts are used to develop extensive and manysided reading, literacy and interaction skills.

406020A-02 Language and writing (4 credits), learning outcomes: 
Having completed the course, the student knows how to apply modern language knowledge to guide children to make observations on language and consciously consider language structure. The student also knows how to guide the children's writing processes in such a way that reading and writing skills are naturally interspersed with school learning as a whole. The student knows how to apply various theories of teaching writing. S/he also knows how to assess the texts produced by children that she takes into account of the age-specific developmental level of the child and the national core curriculum.
Contents:

Finnish Language and Literature comprises two parts:
406020A-01 Literature and Reading
- genres of children's literature
- teaching methods in literature
- supporting the child's literary interests
- folklore
- process reading and strategies of reading
- critical reading
- pedagogy of literature and reading interpretation

406020A-02 Language and Writing
- grammar of Finnish language
- variation of language
- methods and practices of teaching language knowledge
- development of children's writing skills
- theories of writing: fictive writing, process writing and genre writing
- evaluation of writing

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
406020A-01 Lectures 10 h, small groups 26 h and independent work 44 h
406020A-02 Lectures 12 h, small groups 26 h and independent work 69 h

Target group:
Primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
The course is part of "Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education".

Recommended or required reading:
Introduced by the lecturer of the course at the beginning of the course.

Assessment methods and criteria:
Participation in lectures and small groups and an essay written independently by the student.

Grading:
0-5

Person responsible:
Minna Sääskilahti

Working life cooperation:
None

Other information:
Students whose language of instruction has not been Finnish and whose Finnish language skills are not sufficiently good, are exempted from Finnish studies. Instead, they study a corresponding amount of English and didactics of English language teaching.

Compulsory

406020A-01: Literature and Reading, 3 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
3 credits

Language of instruction:
Finnish

Timing:
1st study year

Learning outcomes:
This course focuses on the primary level curriculum and helps students gain an understanding of the role of literature in childhood development and education. Using literary and interpretation pedagogy, a variety of texts are used to develop extensive and manysided reading, literacy and interaction skills.

Contents:
- genres of children’s literature
- teaching methods in literature
- supporting the child's literary interests
- folklore
- process reading and strategies of reading
- critical reading
- pedagogy of literature and reading interpretation

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures 10 h, small groups 26 h and independent work 44 h.

Target group:
Primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
The course is part of "Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education".

Recommended or required reading:
Introduced by the lecturer of the course at the beginning of the course.

Assessment methods and criteria:
Participation in lectures and small groups and an essay written independently by the student.

Grading:
0 - 5

Person responsible:
Minna Sääskilahti

Working life cooperation:
None

406020A-02: Language and Writing, 4 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
ECTS Credits:
4 credits

Language of instruction:
Finnish

Timing:
2nd year

Learning outcomes:
Having completed the course, the student knows how to apply modern language knowledge to guide children to make observations on language and consciously consider language structure. The student also knows how to guide the children's writing processes in such a way that reading and writing skills are naturally interspersed with school learning as a whole. The student knows how to apply various theories of teaching writing. S/he also knows how to assess the texts produced by children that she takes into account of the age-specific developmental level of the child and the national core curriculum.

Contents:
- grammar of Finnish language
- variation of language
- methods and practices of teaching language knowledge
- development of children’s writing skills
- theories of writing: fictive writing, process writing and genre writing
- evaluation of writing

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures 12 h, small groups 26 h and independent work 69 h.

Target group:
Primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
The course is part of "Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education".

Recommended or required reading:
Introduced by the lecturer of the course at the beginning of the course.

Assessment methods and criteria:
Participation in lectures and small groups and an essay written independently by the student.

Grading:
0 - 5

Person responsible:
Minna Sääskilahti

Working life cooperation:
None
ECTS Credits:
2 credits

Language of instruction:
Finnish. For ITE students, the small group sessions are in English.

Timing:
2nd year

Learning outcomes:
Having completed the course, the student is familiar with the premises of drama pedagogy in basic education. S/he knows how to apply to his work as a teacher the genre of drama and theatre education that s/he learnt in this course.

Contents:
The course deals with drama and theatre as a form of learning and as a method of artistic performance in school.

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Small group sessions 24 h and independent work 30 h

Target group:
Primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
The course is part of "Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education".

Recommended or required reading:
You can check for the availability of the literature here.

Assessment methods and criteria:
Participation in contact teaching and as a final project either a drama group work or an independent written work.

Grading:
pass/fail

Person responsible:
Hannu Heikkinen

Working life cooperation:
None

406022A: History, 3 op

Voimassaalo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuyksikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen oppimateriaali:
Asunmaa, Martti , , 1994
Karlen, Arno , , 2000
Löfström, Jan (toim.), , 2002
Vahtola, Jouko , , 2003
Zetterberg, Seppo et. al. (toim.), , 2006
Zetterberg, Seppo et. al. (toim.), , 1988
Opintokohteen kielet: Finnish

ECTS Credits:
3 credits

Language of instruction:
Finnish. For ITE students, the small group sessions are in English.

Timing:
(1st or) 2nd year

Learning outcomes:
Having completed the course, the student has a basic competence to give lessons in history. The student understands what history didactics means and how and why history is taught. The students knows how to plan and implement history teaching using different working methods and tools. S/he knows how to apply several data acquisition methods in the planning of his/her teaching.

Contents:
The special characteristics of history from the viewpoints of school, society and the curriculum and basic teaching competence.

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures 8 h, small group sessions 12 h, independent work 34 h

Target group:
Primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
The course is part of "Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education".

Recommended or required reading:

Assessment methods and criteria:
Active participation in the course, exam

Grading:
0 - 5

Person responsible:
Jari Honkanen
For ITE students, Gordon Roberts

Working life cooperation:
None

406025A: Mathematics Education: Part I, 3 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
ECTS Credits:
3 credits

Language of instruction:
Finnish. For ITE students, small group teaching is in English.

Timing:
1st year

Learning outcomes:
After passing this course the student
- is able to plan mathematics teaching which is based on the curriculum and takes into consideration different learners
- is able to explain and evaluate the main goals, contents, assessment and teaching methods of elementary level mathematics
- can critically evaluate the usability of different learning aids and manipulatives in teaching of the elementary level mathematics
- can use a variety of mathematics manipulatives
- is able to show positive attitudes towards mathematics
- can explain some of theories about teaching and learning of mathematics

Contents:
The course includes the following:
- mathematics in the elementary curriculum
- problem based teaching of mathematics
- the concept of number and integer operations
- geometry, measurement and spatial thinking
- rational numbers and fractions
- mathematics learning difficulties

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lecturelike introductions and problem based discussions 32 h, individual work 48 h.

Target group:
Primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
Connected with the course Mathematics Education, Part II. Completion of School work in the Bachelor phase is required.
The course is part of "Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education".

Recommended or required reading:
Told in the first lecture

Assessment methods and criteria:
Voluntary exam, reading and commenting some articles, calculation exercises

Grading:
0 - 5

Person responsible:
Vesa-Matti Sarenius

Working life cooperation:
None

406026A: Mathematics Education: part II, 2 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
**Laji:** Course  
**Vastuuysikkö:** Faculty of Education  
**Arvostelu:** 1 - 5, pass, fail  
**Opintokohteen kielet:** Finnish

**ECTS Credits:**  
2 credits

**Language of instruction:**  
Finnish. For ITE students, small group teaching is in English.

**Timing:**  
2nd year

**Learning outcomes:**  
After passing this course the student:
- is able to apply his/her knowledge of mathematics education and make a mathematics medium term plan and can evaluate the meaning of it in teaching mathematics
- can apply the central goals, contents, teaching methods and assessment to his/her teaching
- can critically evaluate the applicability of different mathematics manipulatives and other teaching materials for teaching
- can apply some theories about mathematics teaching and learning to his/her planning

**Contents:**  
The course includes the following:
- mathematical problem solving
- percentage calculations
- algebraic thinking
- statistics and probability
- assessing mathematics learning
- approximations and mental mathematics

**Mode of delivery:**  
Face-to-face teaching

**Learning activities and teaching methods:**  
Lectures/small group sessions 16 h, individual and groupwork 38 h

**Target group:**  
Primary teacher students

**Prerequisites and co-requisites:**  
Mathematics Education: Part I

**Recommended optional programme components:**  
Mathematics Education: Part I  
The course is part of "Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education".

**Recommended or required reading:**  
Told in the first lecture

**Assessment methods and criteria:**  
Voluntary exam, making the medium term plan, calculation exercises

**Grading:**  
0 - 5

**Person responsible:**  
Vesa-Matti Sarenius

**Working life cooperation:**  
None

406027A: Physics and Chemistry, 4 op
Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
4 credits

Language of instruction:
Finnish. For ITE students, small group teaching is in English.

Timing:
2nd year

Learning outcomes:
Student
- can evaluate the central goals, subject knowledge, teaching methods and assessing of elementary level physics and chemistry and is able to apply it to his/her own teaching
- can judge the applicability of teaching materials of science education
- is able to explain simple everyday phenomena according to physics and chemistry
- is able to plan teaching and evaluation of physics and chemistry on elementary school grades 0-6 and taking different kind of learners, experimental working and integration between different subjects into consideration
- is able to show positive attitudes towards physics and chemistry education

Contents:
The course includes the following:
- the significance of physics and chemistry to mankind and society
- environmental and natural studies and physics and chemistry in Finnish national core curriculum for basic education
- characteristics of natural scientific knowledge
- getting acquainted with teaching methods of natural science
- studying the phenomena, concepts and experimental working of the following topics from the viewpoint of didactics of physics and chemistry education: water, air, space, forms of energy, motion, light, sound, electricity, magnetism, intoxicants and structure of matter

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures and exercises 38 h, individual and group work 70 h.

Target group:
Primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
The course is part of "Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education".

Recommended or required reading:
Course material availability can be checked here.

Assessment methods and criteria:
Workshop, essay and voluntary exam

Grading:
0 - 5

Person responsible:
Emilia Manninen and Kaisa Hautala

Working life cooperation:
None

406028A: Biology, 2 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen oppimateriaali:
Ahtee, Maija , , 1994
Eloranta, Varpu, Jeronen, Eila & Palmberg, Irmeli (toim.), , 2005
Harlen, Wynne , , 1996
Opetushallitus, , 2004
Virtanen, Lyyli , , 1989
Wellington, Jerry , , 2000
Opintokohteen kielet: Finnish

ECTS Credits:
2 credits

Language of instruction:
Finnish. For ITE students, small group teaching is in English.

Timing:
2nd year

Learning outcomes:
Student is able
- to describe the objectives and contents of biology and environmental and nature studies in the basic education curriculum.
- to compare various teaching and learning conceptions in biology and environmental and nature studies.
- to plan, apply and evaluate teaching and learning processes in biology and environmental and nature studies.
- to judge his or her own professional growth as a biology and environmental and nature studies teacher from the viewpoint of environmental education and education for sustainable development.

Contents:
Introduction
- Overview of the aims, contents and methods of completion of the course
- Biology curriculum

Biological basis of life
- Energy flow
- Material cycle
- Photo- and chemosynthesis

Morphology and physiology of plants
- Cells
- Water and nutrient transport
- Plant growth and reproduction

Anatomy and physiology of animals
- Cell and tissues
- Function and regulation of organs and organ systems

Genetics
- Genes and genotypes
- Phenotypes

Organisms and their environment
- Environmental factors
- Relationships between organisms and their environment
Biodiversity
  - Biomes and ecosystems
  - Phenology

Pollution

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures and group work 16 h, independent work 38 h

Target group:
Primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
The course is part of "Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education".

Recommended or required reading:
National core curriculum for Basic Education (Biology) http://www.oph.fi/english/page.asp?path=447, 27598,37840,72101,72106

AND


OR


The availability of the literature can be checked from this link.

Assessment methods and criteria:
Active participation in contact teaching and a final exam. The exam can be replaced with some alternative method agreed on separately with the teacher responsible for the course.

Grading:
0 - 5

Person responsible:
Eila Jeronen

Working life cooperation:
None

406029A: Geography, 2 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuyksikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen oppimateriaali:
Haubrich, Hartwig (Hrsg.), 2006
Opetushallitus, 2004
Rikkinen, Hannele, 1997
Rikkinen, Hannele (toim.), 1998
Tilbury, Daniella & Williams, Michael (eds.), 1997
Wiegand, Patrick, 1993
Opintokohteen kielet: Finnish
ECTS Credits:
2 credits

Language of instruction:
Finnish. For ITE students, small group teaching is in English.

Timing:
1st year

Learning outcomes:
Student is able
- to describe the objectives and contents of geography and environmental and nature studies in the curriculum.
- to interpret geographical information about the natural environment, built environment and cultural environment.
- to plan and apply various teaching methods, and to evaluate teaching, studying and learning processes.
- to develop his/her teaching skills in geography and environmental and nature studies from the viewpoint of environmental education and sustainable development.

Contents:
Introduction
- Overview of the aims, contents and methods of completion of the course
- Geography curriculum
Maps and teaching of maps
- Different maps
- Different approaches to teaching of maps
Space, climate and weather
- Earth in the universe and solar system
- Climate classification
- Weather and its observation
Natural resources and livelihoods
- Organic and inorganic material
- Soil types, rocks, minerals and ores
- Structure of livelihoods
Landscapes and land use
- Topography
- Types of landscapes
- Built environment
Interaction between human beings and the environment
- Environmental relationship between human being and nature
- Sustainable development
Multiculturalism as a thematic entity

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures and group work 16 h, independent work 38 h

Target group:
Primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
The course is part of “Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education”.

Recommended or required reading:

The availability of the literature can be checked in this link.

Assessment methods and criteria:
Active participation in contact teaching and a final exam. The exam can be replaced with some alternative method agreed on separately with the teacher responsible for the course.

**Grading:**
0 - 5

**Person responsible:**
Eila Jeronen

**Working life cooperation:**
None

**406030A: Health Education, 1 op**

**Voimassaolo:** 01.08.2005 -
**Opiskelumuoto:** Intermediate Studies
**Laji:** Course
**Vastuuysikkö:** Faculty of Education
**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen oppimateriaali:**
Kannas, Lasse & Tyrväinen, Heli (toim.), , 2005
Korhonen, Juho et al. (toim.), , 2002
Korhonen, Juho et al. (toim.), , 2000
Opetushallitus, , 2004
Peltonen, Heidi & Kannas, Lasse (toim.), , 2006
Peltonen, Heidi & Kannas, Lasse (toim.), , 2005
Vertio, Harri , , 2003

**Opintokohteen kielet:** Finnish

**ECTS Credits:**
1 credit

**Language of instruction:**
Finnish. For ITE students, small group teaching is in English.

**Timing:**
3rd year

**Learning outcomes:**
Student is able:
- to describe his or her responsibility for her/himself, other people and the environments.
- to construct information and develop skills for planning and implementing teaching situations and environments so that the scientific thinking of a pupil and its development is possible from the individual, interactive, and collaborative perspectives.
- to apply operational teaching methods and support pupils in adapting a healthy lifestyle.

**Contents:**

**Introduction**
- Overview of the aims, contents and methods of completion of the course
- The health education curriculum

**Basics of health education**
- Health and sickness as concepts
- Goals of health education
- Objectives and methods in health education
- Resource criteria in health education
- Evaluation of health skills

**Ways of life**
- Physical, psychic and social health
- Determinants for health

**Structure and functions of the body**
- Physical health
- Nutrition
- Exercise
Rest and sleep
Sexuality
Alcohol and drugs
Functions and challenges of children’s and youngsters’ mental development
Models of behaviour change

Mode of delivery:
Blended teaching

Learning activities and teaching methods:
Lectures and group work 10 h, distance work 17 h

Target group:
Primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
The course is part of "Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education".

Recommended or required reading:

The availability of the literature can be checked in this link.

Assessment methods and criteria:
Active participation in contact teaching and a final exam. The exam can be replaced with some alternative agreed on separately with the teacher responsible for the course.

Grading:
0 - 5

Person responsible:
Eila Jeronen

Working life cooperation:
None
Language of instruction:
Finnish. For ITE students, small group teaching is in English.

Timing:
1st and 2nd year

Learning outcomes:
In Music Studies, music education is viewed in the larger framework of cultural and art education. Students make music in groups and acquire the subject knowledge and pedagogical skills necessary for music education in school.

Contents:
Music education comprises the following courses:

1. **Pedagogical Applications of Music Education (3 cr.)** Students acquaint themselves with such pedagogical applications of music education as working with a large musical group and paying attention to different level students. They are also introduced to the contents and methods of the subject through a wide range of activities.
   - Familiarize students with the pedagogical contents and uses of music in primary school through extensive music-making (singing, playing, music and rhythmic exercises as well as musical innovation)
   - Present basic techniques and pedagogical uses of school instruments (percussive instruments, percussion instruments, band instruments, self-made instruments, recorders and kantele (traditional Finnish harp))
   - Music education is a holistic arts and culture-based education which incorporates physical activities, drama, other arts and skills as well as extramusical themes.

2. **Voice and Singing (1 cr.)** Students learn effective use of voice together with various ways of teaching vocal expression and singing. They are also encouraged to use their voice for creative personal expression.
   - Provide practice in the proper use and maintenance of voice, vocal expression and their pedagogical application through singing, speech and play-like exercises.

3. **Listening Education (1 cr.)** Students will be introduced to listening education as a natural ingredient of different ways of working with music. They also familiarize themselves with a range of music cultures, styles and stylistic periods and learn to adopt diverse approaches to music.
   - consists of different music styles and genres
   - Listening education is an integral part of all musical activities and helps to put music in a time and place and to gain an appreciation for culturally different types of music
   - Music is approached by adding such elements to listening as enhance focusing on it (physical, verbal, visual or musical stimuli)
   - Music listening proceeds from experiences and emotions to concepts

4. **Music Theory in Practice (1 cr.)** Students learn to play accompaniment in diverse musical settings. Focusing mainly on free accompaniment, the course helps to advance creative self-expression and the ability to follow music by ear.
   - To offer an introduction to musical notation, chord markings, keys and intervals
   - Practical competence is acquired through instrument playing (piano/guitar)

5. **Accompaniment Instrument / Piano or Guitar (2 cr.)** To familiarize students with different musical notation systems, real chord symbols, different styles of music and accompaniment as well as playing techniques. Group lessons involve directing and accompanying communal singing and music playing.
   - To familiarize students with different musical notation systems, real chord symbols, different styles of music and accompaniment as well as playing techniques
   - Group lessons involve directing and accompanying communal singing and music playing

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Teaching methods are described separately for each specific course (406031A-0X).

Target group:
Primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
The course is part of "Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education".
Recommended or required reading:
Listed separately for each specific course (406031A-0X).

Assessment methods and criteria:
Detailed separately for each specific course.

Grading:
Detailed separately for each specific course.

Person responsible:
Module convener: Marja Ervasti
Course convener:
1. Paula Rönkkö
2. Paula Rönkkö
3. Paula Rönkkö
4. Markku Pehkonen ja Anu Kemppainen
5. Markku Pehkonen ja Anu Kemppainen

Working life cooperation:
None

Compulsory

406031A-01: Pedagogical Applications of Music Education, 3 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä

ECTS Credits:
3 cr

Language of instruction:
Finnish and English

Timing:
1st and 2nd years

Learning outcomes:
Upon completion of the course, the student knows how to design and implement pedagogical applications for music education in the lower grades. S/he knows how to discuss the essential goals, contents and assessment in music education. The student is capable of making music by different working methods.

Contents:
- Familiarize students with the pedagogical contents and uses of music in primary school through extensive music-making (singing, playing, music and rhythmic exercises as well as musical innovation)
- Present basic techniques and pedagogical uses of school instruments (mallet instruments, percussion instruments, band instruments, self-made instruments, recorders and kantele (traditional Finnish harp))
- The student knows how to employ a large music group in her/his teaching and how to take into account pupils of different levels.
- Music education is a holistic arts and culture-based education which incorporates physical activities, drama, other arts and skills as well as extramusical themes.

Mode of delivery:
Face-to-face teaching
Learning activities and teaching methods:
Small group teaching 40 h and independent studies 41 h

Target group:
Primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
The course is part of the study module in Music 406031A (8 credits)

Recommended or required reading:
Ensimmäiset kouluvuodet. Perusopetuksen vuosiluokkien 1-2 opetus.
Ervasti, M. 2003. Lorutan laulun, sävellän sillan, piirrä partituurin, äänikuvitan kertomuksen
-musiikillinen keksintö osana sovellettua orff-pedagogiikkaa. Licentiate thesis. Faculty of Education.
University of Oulu. (Applicable parts)
Topical articles and web materials on music education (esim. MOVE, Teacher Training School
curriculum, core curriculum issued by the National Board of Education)
Music textbooks by various publishers (eg. WSOY, Otava, Warner-Chappell) with supplementary
materials.
Availability of course books can be checked here.

Assessment methods and criteria:
Active participation in contact teaching and independent assignments given during the course

Grading:
pass/fail

Person responsible:
Paula Rönkkö

Working life cooperation:
None

Other information:
The course (3 credits) is divided into three parts which are completed as separate wholes during the
first two years of study.

406031A-02: Voice and Singing, 1 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
1 cr

Language of instruction:
Finnish and English

Timing:
1st year

Learning outcomes:
Students learn effective use of voice together with various ways of teaching vocal expression and
singing. They are also encouraged to use their voice for creative personal expression.

Contents:
Provide practice in the proper use and maintenance of voice, vocal expression and their pedagogical application through singing, speech and play-like exercises.

**Mode of delivery:**
Face-to-face teaching

**Learning activities and teaching methods:**
Small group teaching 14 h and independent work 13 h

**Target group:**
Primary teacher students

**Prerequisites and co-requisites:**
None

**Recommended optional programme components:**
The course is part of the study module in Music 406031A (8 credits).

**Recommended or required reading:**
Sing and chorus material representing different styles and genres of music, basic education music textbooks by different publishers (e.g. WSOY, Otava, Warner-Chappell) and supplementary materials to them

**Assessment methods and criteria:**
Active participation in small group sessions and independent assignments given during the course

**Grading:**
Pass/fail

**Person responsible:**
Paula Rönkkö

**Working life cooperation:**
None

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406031A-03: Listening Education, 1 op

**Voimassaolo:** 01.08.2005 -
**Opiskelumuoto:** Intermediate Studies
**Laji:** Partial credit
**Vastuuyksikkö:** Faculty of Education
**Arvostelu:** 1 - 5, pass, fail
**Opintokohteen kielet:** Finnish

**ECTS Credits:**
1 cr

**Language of instruction:**
Finnish/English

**Timing:**
2nd year

**Learning outcomes:**
Students will be introduced to listening education as a natural ingredient of different ways of working with music. They also familiarize themselves with a range of music cultures, styles and stylistic periods and learn to adopt diverse approaches to music.

**Contents:**
- Music is approached by adding such elements to listening as enhance focusing on it (physical, verbal, visual or musical stimuli)
- Music listening proceeds from experiences and emotions to concepts

**Mode of delivery:**
Face-to-face teaching
Learning activities and teaching methods:
Small group teaching 14 h and independent work 13 h

Target group:
Primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
The course is part of the study module in Music 406031A (8 credits).

Recommended or required reading:


Topical articles and online materials
You can check for the availability of the course books here.

Assessment methods and criteria:
Active participation in contact teaching, a concert visit with a review, a pedagogical application

Grading:
pass/fail

Person responsible:
Paula Rönkkö

Working life cooperation:
None

406031A-04: Music Theory in Practice, 1 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
1 cr

Language of instruction:
Finnish/English

Timing:
1st year

Learning outcomes:
The student learns to use and understand concepts and notations in music in the context of listening to and making music.

Contents:
• To offer an introduction to musical notation, chord markings, keys and intervals
• Practical competence is acquired through instrument playing (piano/guitar)

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Contact teaching 14 h and independent work 13 h

**Target group:**
Primary teacher students

**Prerequisites and co-requisites:**
No

**Recommended optional programme components:**
The course is part of the study module Music 4060321A (8 credits). It has a special connection to 406031A-05 Accompaniment Instrument.

**Recommended or required reading:**
Handouts

**Assessment methods and criteria:**
Participation in contact teaching and exam

**Grading:**
0 - 5

**Person responsible:**
Markku Pehkonen and Anu Kemppainen

**Working life cooperation:**
None

406031A-05: Accompaniment Instrument, 2 op

- **Voimassaolo:** 01.08.2005 -
- **Opiskelumuoto:** Intermediate Studies
- **Laji:** Partial credit
- **Vastuuyksikkö:** Faculty of Education
- **Arvostelu:** 1 - 5, pass, fail
- **Opintokohteen kielet:** Finnish

**ECTS Credits:**
2 cr

**Language of instruction:**
Finnish/English

**Timing:**
1st and 2nd years

**Learning outcomes:**
The course gives the student a competence for accompaniment in various practical music making situations.

**Contents:**
- To familiarize students with different musical notation systems, real chord symbols, different styles of music and accompaniment as well as playing techniques
- Group lessons involve directing and accompanying communal singing and music playing

**Mode of delivery:**
Face-to-face teaching

**Learning activities and teaching methods:**
Contact teaching 20 h and independent work 32 h

**Target group:**
Primary teacher students

**Prerequisites and co-requisites:**
See "Recommended optional programme components"

**Recommended optional programme components:**
The course 406031A-05 Musid Theory in Practice provides a theoretical basis for instrument studies and is taken partly at the same time.

**Recommended or required reading:**
Materials related to different music styles and genres, such as textbooks, music books and instrument guides by different publishers.


You can check for the availability of course books [here](#).

**Assessment methods and criteria:**
Participation in accompaniment practice and the music playing party

**Grading:**
0 - 5

**Person responsible:**
Markku Pehkonen and Anu Kemppainen

**Working life cooperation:**
None

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**406032A: Art, 7 op**

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opettajat: Lukkari, Matti Ilmari, Myllykangas Minna
Opintokohteen oppimateriaali:
Hakkola, Kirsti , , 1991
Kaitavuori, Kajla , , 2004
Karppinen, Seija (1) , , 2001
Koskenala, Hanna-Leena & Sabelström-Leppänen, Raija , , 2004
Ojala, Anita , , 2004
Ojala, Anita , , 1999
Opetushallitus , , 2004
Saari, Pirjo , , 2004
Saari, Pirjo , , 2005
Tolonen, Marjatta , , 2006
Tolonen, Marjatta , , 1998
Töyssy, Seppo , , 1999
Wetzer, Hannele , , 2000
Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä

**ECTS Credits:**
7 credits

**Language of instruction:**
Finnish / English

**Timing:**
1st and 2nd years

**Learning outcomes:**
The objectives of this study unit are that the student
• is able to design and implement art education in grades 0 - 6
• can apply working methods, data acquisition, interpretation and evaluation skills which are common in visual arts
• is able to evaluate the curricula and apply didactic and pedagogical applications and solutions in art education

Contents:
The teaching in this course is based on the contents areas in the Core Curriculum for Basic Education 2004.
During the visual arts course the student develops her/his visual, didactic and pedagogical thinking by applying the means of visual expressions.
The course consists of the following parts
1. Drawing
2. Painting
3. Ceramics
4. Construction
5. School graphics
6. Environmental aesthetics
7. Media education

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures and small group sessions 91 h, independent work 98 h.

Target group:
Primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
The course is part of “Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education”.

Recommended or required reading:
To be agreed on at the beginning of the course

Assessment methods and criteria:
Active participation in contact teaching, completing assignments and portfolio

Grading:
0 – 5

Person responsible:
Minna Myllykangas and Tapio Tenhu

Working life cooperation:
None

Compulsory

406032A-01: Drawing, 1 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä

Ei opintojaksokuvausia.
406032A-02: Painting, 1 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä

Ei opintojaksokuvauksia.

406032A-03: Ceramics, 1 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

406032A-04: Building, 1 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

406032A-05: School graphic, 1 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

406032A-06: Environmental aesthetic, 1 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintokohdetta.

406032A-07: Media education, 1 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintokohdetta.

406035A: Physical Education, 7 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opettajat: Niina Loukkola
Opintokohteen oppimateriaali:
Heikinaro-Johansson, Pilvikki, Huovinen, Terhi & Kytökorpi, Lea (toim.), , 2003
Opetushallitus, , 2004
Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä

ECTS Credits:
7 cr

Language of instruction:
Finnish. For ITE students, small group teaching is in English.

Timing:
1st and 2nd year

Learning outcomes:
The student
- is able to name the objectives and contents of physical education
- is able to describe different methods of teaching physical education
- develops sufficient skills to teach physical education successfully in grades 0-6 of basic education

Contents:
- 406035A-04 Lectures, adventure, track and field (1st year, autumn)
- 406035A-05 Indoor ball games, basic gymnastics (1st year, autumn)
- 406035A-06 Skiing, rhythmic gymnastics (1st year, spring)
- 406035A-07 Outdoor ball games (1st year, spring)
- 406035A-08 Orienteering, artistic gymnastics (2nd year, autumn)
- 406035A-09 Skating, swimming (2nd year, spring)
- 406035A-10 SkiAgiFun, the final assignment in p.e. (2nd year, spring)
- Exam

Orientation Towards Didactics and Pedagogy in Physical Education
- societal justifications of physical education
- physical education = education for physical exercise and education through physical exercise
- latest research in the field of physical exercise and physical education
- curriculum and the process of physical education
- approaches towards teaching of physical education
• adventure education
School Gym as a Physical Education Environment (46 h)
• ball games, including ball handling, basketball, volleyball and floorball
• gymnastics
• exercises to develop basic motor skills, physical exercise and learning
Snow, Ice, and Water as Physical Education Environments
• skiing
• skating
• swimming ability must be demonstrated
Immediate Environment of the School During the Autumn and Spring
• athletics
• outdoor ball games, including football and baseball (pesäpallo)
• orienteering, hiking
Independent Work in Physical Education (LOTTO)
The student keeps a physical education diary
• advance assignments in physical education (2-5 h)
• summaries of actual lessons (5-10 h)
• planning of teaching practice for their own group (2 h)
• preparing for the exam (10 h)
• "sportfolio" (20 h)
• learning and practicing swimming (0-20 h)
• practicing of physical exercise skills (20-40 h)
• taking part in health-oriented exercising (4-10 h)
• getting acquainted with the sports culture and physical education events at school (8-20 h)
• compiling a source list of teaching materials for physical education

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures 8 h, practical exercises 83 h, exam, written essay

Target group:
Primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
The course is part of "Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education".

Recommended or required reading:
Opetushallitus ja NuoriSuomi 2008 Fyysisen aktiivisuuden suositus kouluikaissille 7-18 vuotiaille.

The availability of the literature can be checked in here.

Assessment methods and criteria:
Active participation in the small groups, examination in the 2nd year, submission of the sportfolio in the 2nd year, individual tasks

Grading:
Pass/fail

Person responsible:
Ari Rahikkala and Susanna Takalo

Working life cooperation:
None

Compulsory
406035A-04: Lectures, adventure, track and field, 1 op
Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

406035A-05: Indoor ball games, basic gymnastics, 1 op
Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

406035A-06: Skiing, rhythmic gymnastics, 1 op
Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

406035A-07: Outdoor ball games, 1 op
Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

406035A-08: Orienteering, artistic gymnastics, 1 op
Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.
406035A-09: Skating, swimming, 1 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

406035A-10: SkiAgiFun, the final assignment in p.e., 1 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

406040A: Crafts/Technical Work and Technology, 6 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
7 credits
Language of instruction:
Finnish
Timing:
1st and 2nd years
Learning outcomes:
Having completed the course, the student knows how to
- use the most common machines and equipment needed to work on wood, plastic and metal in
technical work in primary school
- teach the safe use of most typical manual tools in technical work to primary school children
- apply the elements of mechatronics to technical work in primary school
- apply the elements of electronics to technical work in primary school
- apply the basic principles of control and automation systems to teaching technical work in primary
school
- design, implement and evaluate small-scale thematic entities from the viewpoint of technology
education in technical work in primary school

Contents:
The study module includes four courses:
1. Handicrafts and technology in the context of technical work (2 credits)
2. Device control (1 credit)
3. Applications of mechatronics (2 credits)
4. Applications of electronics (2 credits)
In the first course, the main focus lies on traditional handicrafts. Through lectures and exercises, the students are familiarized with the most common technical work materials and working on them. The students learn to teach primary school children the safe use of the most common technical work manual tools and to design and carry out simple thematic entities in technical work through written production. The work is based on the student’s own design.

The second course focuses on the control of various devices and systems such as electronic toys and simple robots. When they get to know different ways to control electronic toys, the students learn the basics of mechanics and electrical engineering. They learn to identify and explain the operation of an open and closed control system and to program simple open control system robots made for use in primary school.

The third course focuses on the applications of elementary mechatronics and their use in technical work in primary school. The students learn to combine the elements of mechanics and electrical engineering through design, experimentation and construction into technological entities which are problematized in written productions.

The goal of the fourth course is to guide the students to understand the basic laws of electrical engineering and electronics through personal design, experimentation and construction. At the same time the students’ pedagogical competence is developed as regards primary school children.

**Mode of delivery:**
Face-to-face teaching

**Learning activities and teaching methods:**
1. Handicrafts and technology in the context of technical work: lectures 6 h, small group sessions 20 h
2. Device control: small group sessions 13 h
3. Applications of mechatronics: lectures 4 h and small group sessions 22 h
4. Applications of electronics: lectures 6 h and small group sessions 20 h

**Target group:**
Students in Tehcnology Oriented Primary Teacher Education

**Prerequisites and co-requisites:**
None

**Recommended optional programme components:**
The course is part of the "Multidisciplinary studies in the subjects and cross-curricular themes taught in basic education".

**Recommended or required reading:**

**Assessment methods and criteria:**
Active participation in contact teaching, completion of exercises and written outputs.

**Grading:**
0 - 5

**Person responsible:**
Matti Lindh, Jaakko Nykänen

**Working life cooperation:**
None
406034A-05: Crafts and Technology in the Context of Technical Work, 2 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
2 credits

Language of instruction:
Finnish

Timing:
1st year

Learning outcomes:
The common goals for the study module are to be found in the description for the main code (406040A).

Contents:
The main focus in this course is on traditional handicrafts. The most common materials in technical work and working on them is introduced in the lectures and exercises. The students learn to teach primary school children the safe use of the most common hand tools in tehcnical work, and to plan and carry through simple themes in technical work through written production. The starting-point for the work is provided by their own design.

Mode of delivery:
face-to-face teaching

Learning activities and teaching methods:
Lectures 6 h, small group sessions 20 h

Target group:
Tehcnoligically oriented primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
The course is part of the study module Crafts/Technical Work and Technology 406040A.

Recommended or required reading:
Learning materials are listed in connection with the general description of Technical Work studies.

Assessment methods and criteria:
Active participation in face-to-face teaching

Grading:
1) Mainly numerical assessment, partly pass/fail.

Person responsible:
Matti Lindh, Jaakko Nykänen

Working life cooperation:
None

406034A-04: Device Control, 1 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
1 cr

Language of instruction:
Finnish

Timing:
1st year

Learning outcomes:
The common goals for the study module are to be found in the description for code 406034A.

Contents:
Course focuses on the control of different devices and systems like electrical toys and simple robots. Students learn the basics of mechanics and electricity while familiarizing themselves with different ways to control electrical toys. Students learn to identify and explain open and closed-loop control systems and program simple open-loop control system robots which are designed to be used at the primary school level.

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Small group sessions 16 h

Target group:
Technology Oriented Primary Teacher Education

Prerequisites and co-requisites:
None

Recommended optional programme components:
Course is part of Crafts/Technical Work and Technology 406033A module in Technology Oriented Primary Teacher Education.

Recommended or required reading:
Course materials will be provided by the teacher

Assessment methods and criteria:
Active participation in contact teaching, completion of assignments and written productions

Grading:
0 - 5

Person responsible:
Jaakko Nykänen

Working life cooperation:
None

406034A-02: Applications of mechatronics, 2 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
ECTS Credits:
2 cr

Language of instruction:
Finnish. For ITE students, the small group sessions are in English.

Timing:
1st year

Learning outcomes:
Common goals for the study module are to be found in the description of the main code 406034A (in the case of the technologically oriented group, in the description of the main code 406040A).

Contents:
The course focuses on the applications of basic mechatronic principles and their use in technical work in primary school. Students learn to combine mechanics and electricity into technological wholes by designing, experimenting and constructing. Experiments and constructions are problematized in textual outputs.

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures 4 h ja small group sessions 24 h

Target group:
Primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
The course is part of the Crafts/Technical Work and Technology 406033A module.

Recommended or required reading:
The learning materials are listed in the general description for Technical Work.

Assessment methods and criteria:
Active participation in contact teaching, practical exercises and written outputs.

Grading:
0 - 5

1) Mainly numerical assessment, partly pass/fail.
2) The written and/or online materials produced in the exercises are assessed. Attention is paid to factual content and didactic issues. Instead of producing materials, the study modules can be passed by sitting an exam based on a corresponding amount of literature and the written materials given in the lectures. Agreement is made separately on substitutive ways to pass the course.
3) Concrete materials produced in the exercises are assessed numerically. The assessment pays attention to the pedagogical value and functional and aesthetic aspects of the objects.
4) The ratio between concrete and written assessment is 2:1.

Person responsible:
Jaakko Nykänen and Janne Marjamaa

Working life cooperation:
None

406034A-03: Applications of Electronics, 2 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
ECTS Credits: 2 cr

Language of instruction: Finnish. For ITE students, small group teaching is in English.

Timing: 2nd year

Learning outcomes: The uniform goals for the study module can be found in the description of the main code 406034A (in the case of technology oriented primary teacher education, in the description for 406040A).

Contents: The course aims to guide the students towards an understanding of the fundamental principles of electrics and electronics through individual design, experimentation and construction. The students’ pedagogical competence is developed with the primary school pupil in mind.

Mode of delivery: Face-to-face teaching

Learning activities and teaching methods: Lectures 6 h ja small group teaching 22 h

Target group: Primary teacher students

Prerequisites and co-requisites: None

Recommended optional programme components: The course is part of the Crafts/Technical Work and Technology 406033A module.

Recommended or required reading: The learning materials are indicated in the general description for Technical Work.

Assessment methods and criteria: Active participation in contact teaching, practical exercises and textual outputs.

Grading:

0 - 5
1) Mainly numerical assessment, partly pass/fail.
2) The written and/or online materials produced in the exercises are assessed. Attention is paid to factual content and didactic issues. Instead of producing materials, the study modules can be passed by sitting an exam based on a corresponding amount of literature and the written materials given in the lectures. Agreement is made separately on substitutive ways to pass the course.
3) Concrete materials produced in the exercises are assessed numerically. The assessment pays attention to the pedagogical value and functional and aesthetic aspects of the objects.
4) The ratio between concrete and written assessment is 2:1.

Person responsible: Jaakko Nykänen and Janne Marjamaa

Working life cooperation: None

407038A: School Work in the Bachelor Phase II, 3 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Practical training
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
ECTS Credits:
3 + 3 credits (phases I and II)

Language of instruction:
Finnish

Timing:
School Work in the Bachelor Phase is scheduled for the autumn or spring term of the second year, depending on the group.

Learning outcomes:
Having completed the course, the student
- is capable of analysing and reporting on his own view of teachership and education
- knows how to explain the significance of responsibility in pedagogical activity
- knows how to plan and implement teaching based on the curriculum
- knows how to evaluate the special characteristics of different subjects in teaching and is familiar with cross-curricular themes
- is able to assess pupils' learning
- is able to assess his/her own activity as a teacher
- knows how to apply collegial working methods in his/her activities

Contents:

Contents and themes:
School Work in the Bachelor phase is part of the Multidisciplinary Studies in the Subjects and Crosscurricular Themes Taught in Basic Education (3 credits) and Intermediate Studies in Education (3 credits).
The predominant theme in this course is teaching and learning. The purpose is that the student should deepen and enrich the thematics introduced in the courses "Guidance of Learning, Planning and Evaluation of Teaching" and "Pedagogical Seminar II" and its personal understanding by working in a concrete school and classroom context. Other themes to emerge in this course include different learners, problems of learning and pupil welfare.

School Work in the Bachelor phase offers the student a supervised opportunity to practice the basic skills, planning, implementing and evaluation of teaching. The student is familiarised with both collaborative and independent planning of lessons and larger teaching modules, with flexible situationally conditioned implementation of his/her own teaching and with critical evaluation. Based on her/his own experience, the student has a good opportunity to study, together with peer students and his/her supervisors, the main phenomena and concepts of pedagogical activity, such as pedagogical relationship, pedagogical tact, encountering the child and teacher responsibility. The student also has an opportunity to observe and consider how educationan research and its results are linked to the teacher's work.

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Description of the activities: The extent of the course is 160 hours, half of which consists of school work, observation of lessons and supervisions tied to a time and place.
Depending on the grade and resourcing of lessons, school work in the Bachelor phase involves teaching in either mathematics or mother tongue. Each student also teaches one of the arts or crafts subjects (physical education, visual art, music, textile work or technical work). In addition to these, s/he also teaches some other subject. S/he will give a total of 20 lessons, including 8 lessons given as a group or in pairs, and 12 lessons given during the independent school work weeks. In addition to giving lessons, each student also observes another arts/crafts subject for the duration of four lessons.
The remaining 56 hours of school work tied to a time and place consists of active observation of classes in the student's home class and of supervision given by the class teacher or lecturer in mathematics or mother tongue education.
The student's independent teaching work is expanded gradually during the course. At the start of the course the student works in a group formed by the peer students and the class teacher, with an increased independent share later on. In this way the five calendar weeks are composed as follows:
- The 1st week is an observation week. At the end of the observation week, the students working in the same class put together two lessons related to cross-curricular themes.
- The 2nd week is a pair week. The student plans and implements six lessons together with his/her pair.
- The **weeks 3 to 5** are individual weeks. During these weeks the student plans and implements 12 lessons in either mathematics or mother tongue, one arts/crafts subject and a specifically determined third subject. All the subjects to be taught by a student are to be found on the practice list.

An effort is made in this course to think up and experiment various teaching methods applicable for different learners and based on the special characteristics of different subjects and cross-curricular themes.

**Supervision:** The course involves supervision by the teachers at the Teacher Training School and by the Faculty in subject didactics in either mathematics or mother tongue teaching.

**Target group:**

2nd-year primary teacher students

**Prerequisites and co-requisites:**

Before School Work in the Bachelor Phase, 50 credits of Bachelor studies must have been completed, including Mathematics Didactics: part I (3 credits), Literature and Reading (3 credits), Pedagogical Seminar I (3 credits) and Orientation to School Work (2 credits). The courses must have been completed before registration for school work.

**Recommended optional programme components:**

407028A Pedagogical Seminar II (3 credits) is taken simultaneously with this practice period.

**Recommended or required reading:**

Study materials for Pedagogical Seminar II

**Assessment methods and criteria:**

**Place:** Oulu Teacher Training School, grades 0-6

**Grading:**

Assessment: The class teacher and other supervisors assess the course on the scale pass/fail based on assessment discussions and the pedagogical portfolio. An entry on a “pass” is made on the student's practice card. The practice card is also signed by the lecturer in mathematics or mother tongue education, and the student acknowledges on it the completion of supervision in subject didactics. There are specific instructions on the composition and contents of the pedagogical portfolio.

A fail must be retaken or supplemented. A failed school work period can be retaken twice. There are specific instructions on retaking or supplementing a failed course. A registration that is not cancelled is considered a fail.

**Person responsible:**

**Responsible persons:** Faculty's practice coordinator and the Oulu Teacher Training School practice team

**Working life cooperation:**

Yes. School work is a work placement period.

**Other information:**

**Registration:** Registration for the spring school work periods is by the end of previous November, and for the autumn periods by the end of May.

The school work periods are organised in groups. The details on the scheduling of each group can be found on teaching practice website for primary teacher education.

Registration for school work is done on Weboodi. The registration form is available for a period of time that will be announced by e-mail and on the practice website. The registration form must be filled in carefully. If not cancelled, a registration will be considered a fail.

**Duration of the period:** five calendar weeks

**Information meeting:** The school work in the Bachelor phase will start with an information meeting in the canteen for grades 0-6 in the Teacher Training School.

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406023A: Religion, 2 op

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Intermediate Studies

**Laji:** Course

**Vastuuysikkö:** Faculty of Education

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen oppimateriaali:**

Kallioniemi, Arto & Luodeslampi, Juha (toim.), , 2005
ECTS Credits:
2 credits

Language of instruction:
Finnish. For ITE students, small group teaching is in English.

Timing:
2nd year

Learning outcomes:
The aim of the module is orientate students towards the development of teacher’s intercultural professional competence in teaching the Religious Education so that they can teach, plan and evaluate the pedagogical elements needed in the teaching of the subject in context of the Finnish Elementary School by
  - giving basic knowledge about the goals, contents and methods of RE in the Finnish elementary school
  - developing students capacity to recognize and deepen his/her knowledge, understanding and perspective into the teachers professional competence in RE
  - to develop the larger frame of reference and understanding in the field of RE
  - to develop the capacity to evaluate his/her professional progress as a professional of RE at school

Contents:
  - What is religious education at school (in the Finnish society and cultural context)
  - What is religion and its meaning
  - Religion as a phenomenon of the human growth and development
  - The didactic in the religious education
  - Multicultural and intercultural perspectives in religious education at school
  - Intercultural competence and sensitivity as a part of the teacher’s professional competence

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures 8 h, workshops 14 h, students active independent studies 32 h

Target group:
Primary teacher students

Prerequisites and co-requisites:
No

Recommended optional programme components:
The course is part of "Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education".

Recommended or required reading:
OPS 2004: www.edu.fi

Kurssikirjojen saatavuuden voi tarkastaa tästä linkistä.
Literature (in English): Introduced by the M.Ed. lecturers at the beginning of the course.

Assessment methods and criteria:
Active studying in lectures and workshops, presentation in workshop, essay

Grading:
0 - 5

Person responsible:
Markku Salakka
Working life cooperation:
No

406024A: Ethics, 2 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuyksikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen oppimateriaali:
Airaksinen, Timo , 1987
Kamppinen, Matti (toim.), , 1987
Laurila, Aarne (toim.), , 1979
Niiniluoto, Ilkka , , 1984
Opintokohteen kielet: Finnish

ECTS Credits:
2 credits

Language of instruction:
Finnish. For ITE students, small group teaching is in English.

Timing:
(1st or) 2nd year

Learning outcomes:
The aim of the module is orientate students towards the development of teacher's intercultural professional competence in teaching the Philosophy of Life so that they can teach, plan and evaluate the pedagogical elements needed in teaching of the subject in context of the Finnish Elementary School.

Contents:
Philosophy of Life as a subject of the Finnish Elementary School, the history, content and the ethical statements of the subject in Finland, the practical arrangements of the teaching, philosophy of life, its structure and its relation to human action, ethics, didactics in the subject

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
lectures 8 h, workshops 14 h, independent work 32 h

Target group:
Primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
The course is part of "Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education".

Recommended or required reading:
The availability of the literature can be checked in [this link](http://thislink).

Assessment methods and criteria:
Active participating in lectures and workshops, presentation in workshop, essay
Grading:
0 - 5

Person responsible:
Markku Salakka

Working life cooperation:
None

Other information:
Philosophy of Life is mutually optional with religion.

406033A: Crafts/Textile Work and Technology, 7 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opettajat: Marjut Sarkkinen
Opintokohteen oppimateriaali:
Hyvönen, Leena & Lindfors, Eila (toim.), , 2001
Kantola, Jouko & Kananoja, Tapani (eds.), , 2002
Pirjo Karhu, Maija Malmström, Tuula Mannila, , 2002
Kojonkoski-Rännäli, Seija , , 1998
Kullas, Sampsa & Pelkonen, Marja-Leena (eds.), , 2005
Opetushallitus, , 2004
Suojanen, Ulla , , 1993
Tapaninen, Reino (toim.), , 2002
Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä

ECTS Credits:
7 credits

Language of instruction:
Finnish. For ITE students, small group teaching is in English.

Timing:
1st and 2nd years

Learning outcomes:
The student achieves a basic competence to teach handicrafts in grades 0-6 of basic education and is aware of the characteristics of craft science and crafts, arts and technology education that provide the scientific basis of textile work.

Contents:
Crafts/Textile Work and Technology studies comprise three courses:
1. User-centered design and production in solving crafts and technology problems (2 cr) This course familiarizes students with user-centered design and problem solving in crafts and technology.
2. Material, sewing and clothing technology (3 cr) In material technology, students consider textiles in terms of their fiber material and fabric structure and as products. The also study the basics of sewing and clothing technology.
3. Pedagogical and didactic considerations (2 cr) Product design, manufacture and evaluation processes are viewed within the framework of crafts, technology and art education.

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Specified separately for each specific course.

Target group:
Primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
The course is part of “Multidisciplinary Studies in the Subjects and Cross-Curricular Themes Taught in Basic Education”.

Recommended or required reading:
Specified separately for each specific course.

Assessment methods and criteria:
Specified separately for each specific course.

Grading:
Specified separately for each specific course.

Person responsible:
Marjut Sarkkinen

Working life cooperation:
None

Compulsory

406033A-01: User-Centred Design and Manufacture as an Approach to Crafts and Technology Problems, 3 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohde: Finnish

ECTS Credits:
2 cr

Language of instruction:
Finnish. For ITE students, small group teaching is in English.

Timing:
1st year

Learning outcomes:
- The student knows how to apply and introduce a user-centred design approach.
- The student knows how to produce products suitable for crafts activities, technological problem solving and children's world of crafts.
- The student knows how to document the progress of her/his assignment in a portfolio.

Contents:
The following things are done in the course:
- various small prototype products are designed and manufactured collaboratively
- the theoretical contents and the practical process are documented and analysed in a portfolio

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures 8 h, small group teaching 31 h and independent work 39 h

Target group:
Primary teacher students

Prerequisites and co-requisites:
Recommended optional programme components:
The course is part of the Crafts/Textile Work and Technology 406033A module.

Recommended or required reading:

Learning materials as applicable.

Availability of course literature can be checked here.

Assessment methods and criteria:
The studies are based on large and small group teaching and independent study, and partly on optional workshops. Completion of the studies requires active participation. Both the theoretical and the practical studies are documented in a partly digital and partly 3-dimensional pedagogical portfolio.
The assessment is carried out collaboratively by peers, self and teacher. The final projects of the course and the teaching portfolio are assessed on the basis of agreed criteria.

Grading:
0 - 5

Person responsible:
Marjut Sarkkinen

Working life cooperation:
None

406033A-02: Materials, Sewing and Clothing Technology, 2 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
3 cr

Language of instruction:
Finnish. For ITE students, small group teaching is in English.

Timing:
1st year

Learning outcomes:
The student knows how to
  • classify a textile as a fibre, cloth and product
  • put into use the basics of sewing and clothing technology

Contents:
  • A piece of clothing is made from an elastic material, while the life span of another piece of clothing is prolonged by fixing it.
The student's own learning is analysed from the theoretical and practical points of view by means of a portfolio.

**Mode of delivery:**
Face-to-face teaching

**Learning activities and teaching methods:**
Lectures 6 h, small-group work 20 h and independent work 26 h.

**Target group:**
Primary teacher students

**Prerequisites and co-requisites:**
No

**Recommended optional programme components:**
The course is part of the Crafts/Textile Work and Technology 406033A module.

**Recommended or required reading:**

Learning materials as applicable.
The availability of course literature can be checked [here](#).

**Assessment methods and criteria:**
The studies are based on large and small group teaching and independent study, and partly on optional workshops. Completion of the studies requires active participation. Both the theoretical and the practical studies are documented in a partly digital and partly 3-dimensional pedagogical portfolio.
The assessment is carried out collaboratively by peers, self and teacher. The final projects of the course and the teaching portfolio are assessed on the basis of agreed criteria.

**Grading:**
0 - 5

**Person responsible:**
Marjut Sarkkinen

**Working life cooperation:**
None
Learning outcomes:
The student knows how to identify and use the process of designing, manufacturing and evaluating a product in the frame of reference of crafts, technology and art education.

Contents:
- Becoming aware of problem-centred learning and teaching in the crafts lectures, small groups and embroidery technique exercises
- The student analyses what s/he has learnt in the pedagogical part of the portfolio

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures 6 h, small-group teaching 20 h and independent work 26 h

Target group:
Primary teacher students

Prerequisites and co-requisites:
None

Recommended optional programme components:
The course is part of the Crafts/Textile Work and Technology 406033A module.

Recommended or required reading:


Learning materials as applicable.
You can check for the availability of course literature here.

Assessment methods and criteria:
The studies are based on large and small group teaching and independent study, and partly on optional workshops. Completion of the studies requires active participation. Both the theoretical and the practical studies are documented in a partly digital and partly 3-dimensional pedagogical portfolio.
The assessment is carried out collaboratively by peers, self and teacher. The final projects of the course and the teaching portfolio are assessed on the basis of agreed criteria.

Grading:
0 - 5

Person responsible:
Marjut Sarkkinen

Working life cooperation:
None

900071Y: Scientific Communication II, 2 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Language and Communication Studies
Laji: Course
Vastuuysikkö: Language Centre
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
Leikkaavuudet:
ay900071Y  Scientific Communication II (OPEN UNI)  2.0 op
Status:
This course unit is compulsory for all students undertaking a Master's degree in Subject Teacher Education, Primary Teacher Education, Technology Oriented Teacher Education, Creative Arts Oriented Teacher Education and Music Education. If a student of Education has included a Speech Communication course unit in his/her Bachelor's Degree, he/she must include this course unit in his/her Master's Degree.

ECTS Credits:
2 credits

Language of instruction:
Finnish

Timing:
4th year of studies

Learning outcomes:
Upon completion of the course unit the student should have a more in-depth understanding of scientific communication, especially scientific writing. He/she should be able to produce scientific text fitting for an MA thesis. The student should also be able to analyse and interpret the special field-specific conventions of scientific writing.

Contents:
The distinctive features of an MA thesis as a form of scientific communication. Writing as a process. Analysis of texts written for various scientific purposes. Popularised scientific discourse.

Mode of delivery:
See Learning activities and teaching methods

Learning activities and teaching methods:
Contact lessons and independent group work 16 h. Independent study ca. 34 h.

Target group:
See Status

Prerequisites and co-requisites:
-

Recommended optional programme components:
-

Recommended or required reading:
To be agreed at the beginning of the course.

Assessment methods and criteria:
Active participation in teaching, independent study and completion of given assignments.

Grading:
pass / fail

405021Y: Knowledge Work as a Pedagogical Challenge, 3 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: General Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
3 cr

Language of instruction:
Finnish

Timing:
4th year

Learning outcomes:
Students familiarize themselves with the pedagogical and technological challenges imposed by the knowledge society, and learn to understand the research-based pedagogical principles underlying the pedagogical use of ICT. Students enhance their capacity to function as teachers/educators in a technology-based environment in an information society based on knowledge work.

Contents:
- familiarization with the phenomena of information society and knowledge work
- the challenges of learning and teaching in the information society
- diginatives, social media, mobile learning, u-learning and other phenomena of the information society and their influence on teaching arrangements and learning as a whole
- social discussion on the theme and its connections with, for instance, curriculum work
Mode of delivery:
Three face-to-face meetings and work in a wiki environment

Learning activities and teaching methods:
Lectures 4h, web-based work 10h, seminar 6h, independent study.
- Lecture
- Group discussion after the lecture
- Independent work and writing a summary article based on literature
- Group discussion on the results of independent work
- Knowledge construction by the group in a wiki environment
- Presentation of wiki articles.

Target group:
Primary teacher students (apart from ITE-students), music education students, early childhood education students

Prerequisites and co-requisites:
None

Recommended optional programme components:
Part of the Master-level language, communication and orientation studies, mutually optional with "Professional growth" and "Philosophy of science".

Content connected with the following courses:
- 410014Y Information and communication technology as a pedagogical tool
- 410017Y Multimedia as a learning project
- 410068P Didactics
- 407027A Guidance of learning, planning and assessment of teaching

Recommended or required reading:
- Literature (international peer-reviewed articles, Finnish peer-reviewed articles, book chapters, reports, presentations) divided into themes a) teaching, b) information society, c) knowledge work, available on the course wiki
- Lecture materials on the wiki and on SlideShare
- Abstract of the students’ articles and their essays are stored on the wiki.

Assessment methods and criteria:
- Active participation in face-to-face meetings
- Summarising an article/articles as independent work
- Composition of a wiki article based on article summaries in a group

Grading:
Pass/fail

Person responsible:
Jari Laru

Working life cooperation:
None

Other information:
https://wiki.oulu.fi/display/ktktvt/Etusivu

A250543: Education, Advanced Studies (TEKNO), 70 op

Voimassaolo: 01.08.2010 -
Opiskelumuoto: Advanced Studies
Laji: Study module
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
80 credits

Language of instruction:
Finnish

Timing:
4th and 5th years

Learning outcomes:
Having completed the Advanced Studies in Education, the student knows how to evaluate critically the premises and approaches in scientific research. S/he knows how to apply the methods of scientific knowledge acquisition to study educational and teaching processes. S/he has a theoretically based view on her/his own expertise and the competence to work as a teacher and in other expert duties in the field of education.
Contents:

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<tr>
<th>Course Code</th>
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| 413030S     | Elective course (a or b):  
|             | a) Advanced course in quantitative research | Total 5 credits |
| 413030S-01  | 1) Lectures | 3 |
| 413030S-02  | 2) Exercises | 2 |
| 413031S     | b) Advanced course in qualitative research | Total 5 credits |
| 413031S-01  | 1) Lectures | 2 |
| 413031S-02  | 2) Exercises | 3 |
| 408013S     | Master's thesis | 40 credits |
| 408014S     | Optional Course | 3 credits |
|             | a) Literature course: Ethical issues in education and multiculturalism | 3 credits |
|             | b) Literature course: Learning and supporting it | 3 credits |
|             | c) Literature course: Environmental ethics and aesthetics | 3 credits |
|             | d) Literature course: The child's voice and place | 3 credits |
|             | e) Literature course: Prevention of and intervention in school violence | 3 credits |
|             | f) Literature course: Teacher's work in terms of being in a relationship | 3 credits |
|             | g) Other optional advanced course in education | min. 3 credits |
| 408015S     | Curriculum and School Development | 5 credits |
| 408016S     | Education and Teachers' Work in Change | 5 credits |
| 408020S     | School Work in the Master Phase | 11 credits |
| 408021S     | Thematic Practice | 6 credits |
| 408019S     | Basics of educational administration | 2 credits |

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Vary by course.

Target group:
Students in the Technology Oriented Primary Teacher Education Programme

Prerequisites and co-requisites:
Basic (25 credits) and Intermedia (40 credits) Studies in Education

Recommended optional programme components:
The module of Advanced Studies in Education is constituted by the above courses.

Recommended or required reading:
Agreed on a course by course basis.

Assessment methods and criteria:
Vary by course.

Grading:
0 - 5

Person responsible:
Leena Syrjälä

Working life cooperation:
Includes 11 credits of school practice, "Master Level School Experience", and 6 h of other work placement, "Thematic Practice"

408013S: Master's Thesis, 35 - 40 op

Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
40 cr
Language of instruction: Finnish or English

Timing:
Master's studies

Learning outcomes:
The student
- is able to write either alone or in pairs an educational thesis that proves familiarity with the thematic area of the thesis and shows an ability for scientific thinking,
- masters the research methods chosen by her/him and shows a readiness for scientific communication
- knows how to assess theses made by others, take part in scientific discussion and defend her/his own thesis

Contents:
The course includes the following:
- presentation of research plan and report
- acquisition and reading of research literature
- familiarisation with research methods
- writing a thesis on an educational topic
- active participation in seminar sessions

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Seminar sessions 40 h, independent work about 1000 h

Target group:
Students in the Faculty of Education

Prerequisites and co-requisites:
Bachelor's Thesis

Recommended optional programme components:
Advanced course in quantitative/qualitative research
The course is part of the Advanced Studies in the major subject.

Recommended or required reading:
Research and methodological literature: refereed publications

Assessment methods and criteria:
Participation in seminar sessions, writing a thesis and its presentation in a seminar session, acting as peer opponent and writing of the maturity test

Grading:
0 - 5

Person responsible:
Hannu Heikkinen and the leaders of seminar groups

Working life cooperation:
None

Other information:
For details on current Bachelor's and Master's thesis groups, see www.oulu.fi/ktk/opinnaytetyot

408014S: Optional Course, 5 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
ECTS Credits:
3 cr

Language of instruction:
Finnish

Timing:
4th and 5th years, spring/summer

Learning outcomes:
After completing their selected optional advanced level studies courses, students are able to justify their educational viewpoints with recent and diverse scientific knowledge.

Pedagogical challenges in research: literature course (3 credits)
- The student acquaints her/himself with research carried out in the various research groups of the faculty and with modern educational literature.
- The student is capable of deepening the topics of her/his Bachelor's or Master’s thesis
- The student enhances her/his pedagogical skills to respond to the challenges offered by current themes.

Contents:
The literature packages familiarize the student with various pedagogical challenges in the field of education. The student can select advanced level courses from the faculty's yearly offered courses. The selection of courses is updated yearly and can be found on the department's internet pages as well as the notice-board. The student chooses one of the following literature packages, among others:

a) Ethical issues in education and multiculturalism
b) Learning and ways to support it
c) Environmental ethics and aesthetics
d) Child's voice and place
e) Prevention of and intervention in school violence
f) The teacher's work in terms of being in relationships

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
The literature course is carried through in the spring term, but the course ends at the start of the next autumn term. It is thus possible to study in the summer to complete the course. The student chooses one of the available literature packages. Each package has a responsible leader of its own representing one of the faculty's research groups. The course consists of independent work and includes 2-3 meetings in a small group. The course starts with an information meeting, after which registrations for the course are allowed: the students register for their chosen package on Weboodi.

The literature course comprises
- an information meeting 2 h
- small group sessions 6 h
- independent work 73 h

Target group:
Primary teacher students and students in the degree programme in education (final exam)

Prerequisites and co-requisites:
None

Recommended optional programme components:
You may utilise the course literature in your Master's thesis.

Recommended or required reading:
To be handed out/agreed on at the start of the course.

Assessment methods and criteria:
Participation in small group sessions and familiarisation with the chosen literature. Either a literature exam, or essays written on the literature.

Grading:
0 - 5

Person responsible:
Working life cooperation:
None

Other information:
The literature course offers one way to complete the Optional Course (advanced studies, primary teacher education) or Final Exam (advanced studies, education) or it can be included among other optional studies. Students in the Education Programme should note that the course is worth 3 credits. Arrangements should be made with the person in charge for a more comprehensive package.

408015S: Curriculum and School Development, 5 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen oppimateriaali:
Cornbleth, Catherine , , 1990
Doll, William E. Jr. , , 1993
Stoll, Louise , , 1996
Opintokohteen kielet: Finnish

ECTS Credits:
5 cr

Language of instruction:
Finnish

Timing:
4th year, spring term

Learning outcomes:
The course provides students with the necessary capacities for curricular design at the school and municipal levels, and training for curricular evaluation at the local level. The course familiarises the students with curriculum theory - especially with the significance of the curriculum in the development of a school's activities - and discusses the connections of the curriculum with society and education policy. In addition, educational evaluation is looked at in terms of both theory and practice at local, national and international levels. As a whole, the course gives student teachers the capacity to function as committed, critical and responsible actors in the development of the curricular and its evaluation. After the course the student is able to

- identifies the theoretical premises underlying different curricula
- identify and interpret the values and goals underlying curricula as well as their connections with society and education policy.
- identifies and is able to determine the different levels of educational evaluation (local, national, international; theory and practice)
- design a curriculum and manage/develop its basis of evaluation

Contents:
- concept of curriculum
- different curricular theories and approaches
- foundations, levels and methods of evaluation
- evaluation and education policy

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
- lectures 20 h and small group sessions 12 h, as part of which a project plan is made in practice related to the field of curriculum or evaluation, or a project in progress in which you are involved is described and evaluated
- the planning or evaluation task can be integrated with teaching practice
**Target group:**
Primary teacher students

**Prerequisites and co-requisites:**
None

**Recommended optional programme components:**
Can be integrated with a teaching practice period.

**Recommended or required reading:**

The availability of the literature can be checked from this link.

**Assessment methods and criteria:**
Based on an exam and report on the development or evaluation assignment. Both parts are assessed on the scale 0-5. The exam is based on the lectures and literature.

**Grading:**
0 - 5

**Person responsible:**
Leena Syrjälä

**Working life cooperation:**
None

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**408016S: Education and Teacher's Work in Change, 5 op**

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Advanced Studies

**Lajit:** Course

**Vastuuysikkö:** Faculty of Education

**Arvostelu:** 1 - 5, pass, fail

**Opintokohteen oppimateriaali:**
Day, Christopher & Sachs, Judyth (eds.), , 2004
Elbaz-Luwisch, Freema , , 2005
Sugrue, Ciaran & Day, Christopher (eds.), , 2002
Vandenberghhe, Roland & Huberman, A. Michael (eds), , 1999

**Opintokohteen kielet:** Finnish

**ECTS Credits:**
5 cr

**Language of instruction:**
Finnish

**Timing:**
4th year

**Learning outcomes:**
Having completed the course, the student
- knows how to analyze social and cultural factors that are connected with changes in education and teachers’ work
- is able to function in changes actively and in cooperation with different parties
- knows how to describe forms of multiprofession cooperation in the school world and how to take measures to launch cooperation
knows working methods of cooperation between the home and school and knows how to apply them in her/his work
knows how to analyse the operation of work community and how to describe the characteristics related to the professional development of a teacher in early stages of her/his working career

Contents:

- school as a field of multiprofessional cooperation
- cooperation between schools and homes
- school as a work community
- identity of a newly qualified teacher

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

Lectures and expert visits 22 h, small group sessions in the form of a reading circle 12 h.

Target group:

Primary teacher students

Prerequisites and co-requisites:

None

Recommended optional programme components:

The course is part of the whole formed by "Pefagogical Seminar III", "School Work in the Master's Phase" and "Thematic Practice".

Recommended or required reading:

To be agreed on at the beginning of the course.

Assessment methods and criteria:

Participation in the lectures and small group sessions, completion of the learning tasks and passing the literature exams.

Grading:

0 - 5

Person responsible:

Sari Manninen

Working life cooperation:

None

408023S: Pedagogical Seminar in Technology Education III, 3 op

Voimassaolo: 01.08.2006 -
Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:

3 cr

Language of instruction:

Finnish

Timing:

Masters level

Learning outcomes:

Having completed the study module/course, the student knows how to plan and implement lessons in primary school from the viewpoint of technology education. The student knows how to evaluate and
organize teaching and learning, also taking into account the ethical perspective. The student knows how to document and gather data on his/her learning of technology education and teaching and to evaluate his/her learning.

Contents:
The seminar discusses educational phenomena, professional practices and the student's own teachership from the viewpoint of technology education. The starting point is provided by the opportunities offered by education to organize teaching and learning, when the goal is to learn to educate pupils to understand the technological world. Another aim is to learn to plan instruction on ethical grounds and in collaboration with other teachers. The students document their own learning, so the data gathered can be used in their future work as teachers. They can experiment with the materials based on their own planning in the advanced practice periods.

The following issues are emphasized when the contents are discussed:
- Formulation of a technology learning theory based on the student's own goals for teaching and learning.
- Planning the teaching of two topics based on a theoretical foundation formulated by the student.
- Evaluation of a theory and teaching session held by two other members of the seminar group.

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Small group sessions 24 h, which also serves as a support to supervision in advanced professional practice. Independent work 24 hour. Essay: A personal theory of technology education, its development and justification making use of experiential knowledge and theory 32 h.

Target group:
Technology Oriented Primary Teacher Education

Prerequisites and co-requisites:
None

Recommended optional programme components:

Recommended or required reading:
Course literature, online materials and materials distributed in the seminar.

Assessment methods and criteria:
Active participation in the seminar, writing a seminar report. Course performance is assessed based on the essay.

Grading:
0 - 5

Person responsible:
Matti Lindh

Working life cooperation:
Not really. See additional details on the contents.

408020S: School Work in the Master Phase, 11 op

Voimassaolo: 01.08.2006 -
Opiskelumuoto: Advanced Studies
Laji: Practical training
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
11 cr
Language of instruction:
Finnish

Timing:
The Teacher Training School provides an opportunity four times a year to participate in Master's Level School Experience. This practice period takes place in the 4th or 5th year of study. A master's school experience period is not scheduled for a group, and the student must allocate a time slot for it in her or his personal study plan.

Learning outcomes:
After completion, the students will
- have a clear idea of teaching and pedagogical perspectives
- understand the unique features of different subjects and cross-curricular themes and be able to apply this knowledge in practice
- be able to plan and carry out teaching based on the curriculum
- know how to apply what they have learnt to the assessment of learning
- be able to evaluate the different forms of cooperation between the school and home
- evaluate their own role as an educator
- create, use and evaluate teaching materials

Contents:

Contents and themes:
The Master's level school experience is part of the Master's pedagogical studies and belongs to the whole formed by *Education and Teaching in Transition* (5 credits) and *Pedagogical Seminar III* (3 credits).
At the Masters level, the practice period follows the theme of viewing oneself as a teacher and educator (*I, the Teacher*). The aim of the practice period is for the students to deepen and expand their working knowledge and understanding of the topics covered in Education and Teaching in Transition and Pedagogical Seminar III through practical work experience in the context of the school and the classroom. The practice period focuses on taking complete responsibility for the classroom. The students engage in all the activities for which a teacher is responsible.

The period provides the students with a guided opportunity to plan study modules on the basis of curricula and subject material and to become familiar with the distinctive didactic features of different subjects. During the practice period, students assess their own teacherhood from different perspectives - teachers as influential actors in society, educational ethics and morality. The students also participate in collaboration between the school and home.

Based on their own practical experience, they investigate together with other students and their supervisors the core phenomena and concepts behind pedagogical activity, e.g. the pedagogical relationship, pedagogical tact, facing the child and teacher responsibility, with the aim of developing the knowledge they already have. The students are also given an opportunity to consider how educational research affects the work of a teacher and to conduct educational research relating to the teaching profession.

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:

*Place:* Oulu Teacher Training School, grades 0-6.

Students completing a 60-credit minor subject have the possibility of completing this practice period in grades 7-9 of the Teacher Training School. The practice period in the minor subject can also be completed at a different time from this period. If a student chooses to practice in a 60-credit minor subject in the grades 7-9, s/he shall contact the Faculty's practice coordinator immediately upon registration for the practice period.

*Duration:* seven calendar weeks

*Description:* The Masters level school practice period covers 295 h, with 135-145 h of work at tied to a specific time and place, observation of classes and guidance sessions. These include: *Giving lessons:* The student gives 60 lessons during this practice period. The practical arrangements are as follows.

*Subject blocks.* In the first four weeks of the practice period, the student gives 30 lessons. These lessons constitute the subject blocks, i.e. mathematics or Finnish (mother tongue) and two taught minor or other subjects, each one of which shall be practiced for at least six hours during the period. The student will prepare period plans for the lessons together with the class teacher and lecturers in subject didactics. If the student is practicing in a 60-credit minor subject in grades 7-9, the lessons practiced there are deducted from the subject blocks.

*Responsible weeks.* The remaining 30 lessons of this practice period are given during the “responsible weeks”. These are the last two weeks of the period, with the students practicing in a class taking together...
full responsibility for the class activities. These responsibilities include, in addition to planning and giving lessons, duties related to break and lunch supervision, cooperation between the home and the school, morning assemblies and cell events.

The students practicing in the same class plan the programme for the last two weeks together. In addition to other school work, the students agree on how the lessons will be given in such a way that both students have a workload of 30 lessons. The lessons can consist of individual lessons given by the students, simultaneous teaching or teaching taking place in two places at the same time (such as special education). In their plan the students shall indicate clearly the role that both of them will have in the lessons. Practicing in the minor subject of special education can also be performed in the responsible weeks. The students plan the responsibilities for the last two weeks together, and divide them among themselves, yet in such a way that the class teacher checks for the division of responsibilities before the weeks begin. If a student is practicing along in a class, s/he plans and gives all the 30 lessons on her or his own.

Pupil welfare. The practice period includes an 8-hour module in pupil welfare which will be

Other forms of work within a school. This practice period also contains a total of 40-50 h of work related to teaching, the school world or practical applications of education, such as project work, as well as active observation of lessons. A project could be:
- data collection based on a research plan for the Master’s or other thesis
- research group activities in subject didactics
- (assignment connected with) a specialisation course related to teaching practice.
- projects related to the operation of the Teacher Training School, e.g. celebrations, parents’ evenings, exhibitions, UNESCO themes, school camps, art productions, collaboration projects with various cultural facilities, and other events.

Supervision. The practice period involves supervision by the teachers at the Teacher Training School and by the lecturers in subject didactics in the subjects taught in the subject block. The students therefore need to seek for supervision in subject didactics by three lecturers. These three lecturers also monitor a lesson given by the student. The guidance sessions per student amount to 25-30 hours.

The student plans, implements and evaluates the lessons and teaching modules in a peer team consisting of the other students that may be practicing in the same class, the class teacher and lecturers in subject didactics depending on the nature of the practice lessons.

Target group:
Master’s students

Prerequisites and co-requisites:
The student must have successfully completed: Orientations to School Work (2 credits), Bachelor level school experience (6 credits), and Multi-disciplinary Studies in the Subjects (MSS) and Cross-curricular Themes Taught in Basic Education (CT) (60 credits). In addition, the student must have a minimum of 10 credits of completed minor subject studies in subjects taught in schools at the start of this school experience period.

The right to do a practice period in the minor subject in grades 7-9 is gained when the above practice requirements are fulfilled and 25 out of the 60-credit minor subject taught in school have been completed. If a student wants to practice in a 60-credit minor subject in grades 7-9, s/he must get in touch with the Faculty’s practice coordinator immediately upon registration for the practice period. Please note that this requirement must be fulfilled by the commencement of the school practice period, not during registration. In unclear situations, the Faculty’s practice coordinator will determine the right to participate after consultation with the persons responsible for the courses in question. The advanced minor subject school practice period can also be done in grades 0-6.

Recommended optional programme components:
The practice programme constitutes a part of the pedagogical studies at the Masters level, and falls under the entity formed by Education and Teaching in Transition (5 credits) and Pedagogical Seminar III (3 credits).

Recommended or required reading:
Materials for Pedagogical Seminar III

Assessment methods and criteria:
Description: The Masters level school practice period covers 295 h, with 135-145 h of work at tied to a specific time and place, observation of classes and guidance sessions. These include:
Giving lessons: The student gives 60 lessons during this practice period. The practical arrangements are as follows.
Subject blocks. In the first four weeks of the practice period, the student gives 30 lessons. These lessons constitute the subject blocks, i.e. mathematics or Finnish (mother tongue) and two taught minor or other subjects, each one of which shall be practiced for at least six hours during the period. The student will
prepare period plans for the lessons together with the class teacher and lecturers in subject didactics. If the student is practicing in a 60-credit minor subject in grades 7-9, the lessons practiced there are deducted from the subject blocks.

**Responsible weeks.** The remaining 30 lessons of this practice period are given during the “responsible weeks”. These are the last two weeks of the period, with the students practicing in a class taking together full responsibility for the class activities. These responsibilities include, in addition to planning and giving lessons, duties related to break and lunch supervision, cooperation between the home and the school, morning assemblies and cell events.

The students practicing in the same class plan the programme for the last two weeks together. In addition to other school work, the students agree on how the lessons will be given in such a way that both students have a workload of 30 lessons. The lessons can consist of individual lessons given by the students, simultaneous teaching or teaching taking place in two places at the same time (such as special education). In their plan the students shall indicate clearly the role that both of them will be having in the lessons. Practicing in the minor subject of special education can also be performed in the responsible weeks.

The students plan the responsibilities for the last two weeks together, and divide them among themselves, yet in such a way that the class teacher checks for the division of responsibilities before the weeks begin. If a student is practicing along in a class, s/he plans and gives all the 30 lessons on her or his own.

**Pupil welfare.** The practice period includes an 8-hour module in pupil welfare which consists of lectures and exercises during the period.

**Other forms of work within a school.** This practice period also contains a total of 40-50 h of work related to teaching, the school world or practical applications of education, such as project work, as well as active observation of lessons. A project could be:

- data collection based on a research plan for the Master’s or other thesis
- research group activities in subject didactics
- (assignment connected with) a specialisation course related to teaching practice.
- projects related to the operation of the Teacher Training School, e.g. celebrations, parents’ evenings, exhibitions, UNESCO themes, school camps, art productions, collaboration projects with various cultural facilities, and other events.

**Supervision.** The practice period involves supervision by the teachers at the Teacher Training School and by the lecturers in subject didactics in the subjects taught in the subject block. The students therefore need to seek for supervision in subject didactics by three lecturers. These three lecturers also monitor a lesson given by the student.

The guidance sessions per student amount to 25-30 hours.

The student plans, implements and evaluates the lessons and teaching modules in a peer team consisting of the other students that may be practicing in the same class, the class teacher and lecturers in subject didactics depending on the nature of the practice lessons.

**Grading:**

Based on assessment discussions and the pedagogical portfolio, the class teacher and other supervisors assess the student's performance on the scale pass/fail. An entry on a pass is made on the practice card. The card is also signed by three lecturers in subject didactics, and the student shall sign hier/his confirmation of the completion of supervision in subject didactics. There are specific instructions on the composition and contents of the pedagogical portfolio.

A fail may need to be retaken or supplemented. In case of a fail, a school experience period can be retaken twice. There are specific instructions on supplementing or retaking the period. A registration that is not cancelled is considered a fail.

**Person responsible:**

Vesa-Matti Sarenius, Auli Halme und Erkki Pekkala

**Working life cooperation:**

Yes. The practice period takes place at the Oulu Teacher Training School. For more information, see “Learning activities and teaching methods”.

**Other information:**

**Registration:**

- For the autumn practice session, please register by the end of April in the preceding spring term.
- For the spring practice session, please register by the end of November in the preceding autumn term.
- The student must register for their School Experience Masters Level on Weboodi. The registration form is available online for a limited time interval that will be specified by e-mail and on the practice website. The registration form must be filled in carefully.

If the students would like to complete school practice in their advanced/extended minor subject at the 7-9 grade levels, they should personally inform the person responsible for coordinating 7-9 grade level school practice when registering for the School Experience Masters Level.
Duration of the period: seven calendar weeks
Information meetings: The School Experience Masters Level practice period will commence with an information meeting in the canteen for the grades 0-6 at the Oulu Teacher Training School.

408021S: Theme-based Practice, 6 op

Voimassaolo: 01.08.2006 -
Opiskelumuoto: Advanced Studies
Laji: Practical training
Vastuyksikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
6 cr

Language of instruction:
Finnish

Timing:
Thematic practice takes place during the Masters stage of the teacher training programme during a period chosen by the student, or alternatively during a longer time period.

Learning outcomes:
After the practice period the student will be able to:
- be familiar with the multiple layers of the education realm
- analyze the different perspectives of educational work and be able to apply them in various contexts and assignments within educational work.
- apply a set of a research data in experimental or developmental work, or gain other relevant skills
- apply their skills and knowledge in planning project work.

Contents:
Thematic practice provides an opportunity for experimental, developmental or research activity with different actors and partners in the education field. The aim of the practice period is to support the student in gaining expertise in an area of particular interest to the student.
In Thematic Practice the student can familiarize him/herself on a broader level with the teaching profession and/or focus in depth on a more specific area of interest. It is possible to complete this practice period as a more long-term period of research or development work which is related to the pedagogical studies and/or research studies undertaken before the practice period begins.
Familiarizing with the education field on a broader level provides the student with the opportunity to expand their experience of working as a teacher in general or vocational education, or in an educational organization or project outside grades 0-6 of basic education. In this form of practical experience, the student plans, carries out and evaluates teaching and gets to know the position of the practice place as part of the educational system. The subjects, cross-curricular themes or research topics are decided between the student and the supervisor.
Focusing on a particular field in education provides the students with a chance to deepen their working knowledge of the various themes that arise in their previous and current studies. Thematic practice involves either educational, guidance, or teaching work.

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
As the name implies, the practice period bears a theme of the student's own choice based on her/his previous pedagogical studies and/or research studies. The theme could, for example, be based on a focal area of her/his education, a minor subject or some other studies, such as the Master's thesis. During this practice period, the students can gather data for their Masters theses.
One of the main features of Thematic Practice is the student's individual responsibility.
The student is responsible for
- planning and implementing the thematic practice
- seeking guidance and arranging for a supervisor
- finding a practice place and a host supervisor there
- planning and implementing practice evaluation
Implementation of this particular practice period will be negotiated with the relevant supervisors. Primary teacher students will complete their thematic practice irrespective of their previous work experience.

**Place:** One practice place is sufficient. The practice period can be divided into 2 or 3 different time periods, which can also take place at different work places.

The practice place must be a public or third sector organization, whose line of business is education, training or teaching. The internship can take place in Finland or abroad. It can also take place at a teacher training school.

In the Creative Arts primary teacher programme in particular, Thematic Practice can take place in cooperation with the Oulu City Cultural Department, involving e.g. project planning and implementation or provision of education for special student groups.

**Different types of practice periods and their durations:** The practice period can be completed in either one place or be divided into 2-3 parts (at least 2 credits each).

**A) Work practice**

This type of practice is completed by engaging in work in the educational field. The experience will expand the teacher trainee's views on the various different jobs within the teaching profession, OR the activities of the many parties to the multiprofessional cooperation in which primary teachers are involved, OR work in an educational organization.

*Multi-dimensional teacherhood:* kindergarten teacher, special needs teacher, special class teacher, subject teacher, vocational teacher, general studies teacher, liberal adult education teacher, guidance counsellor.

*Multiprofessional cooperation:* e.g. social services in child protection, school curator, school healthcare, speech therapy, school psychologist.

*Cultural field:* e.g. involvement in an art project or organisational duties in a cultural organisation, art therapy, special education classes and schools.

*Other pedagogical sector:* work with children, youth, participation in pedagogical organisations.

Qualification for these sectors is attained in other training programmes, so familiarisation with these activities can only be done in the form of work experience under the direction of a person actually working in the particular field.

30-40 hours of work corresponds to 2 credits, depending on how demanding the work is. In addition, the student shall reserve time for planning and evaluation (including the writing of a report).

**B) Research and development activity:** E.g. projects; experimental educational projects; development of expertise for the Master's thesis.

30-40 hours of work corresponds to 2 credits, depending on how demanding the work is. In addition, the student shall reserve time for planning and evaluation (including the writing of a report).

**C) School experience practice.** E.g. special education schools, special care units, student groups in small rural schools, supervising groups of integrated students, field schools, teacher training school, kindergartens, student groups within schools, after school activities, student club activities, arts classes (also arts programme classes), educational/training in organisations.

In this kind of school experience, the students give 12-15 lessons and observe actively, possibly working as teachers' aides, another 12-15 lessons, amounting to a total of 2 credits. In addition, the students shall reserve time for planning and writing a report on their work experience period. This form of work experience will also require a supervisor at the school in question, who monitors the student's lessons and give feedback.

The work practice period can also be constructed in such a way that it is spread over a longer period of time, e.g. the whole year. The number of credits given is determined according to the hours in A) and B).

**Planning and reporting**

The practice period begins with the design of a working plan and ends with the completion of a work experience report.

*Working Plan:* This plan is a pedagogically justified free-form description of the intended work practice period, which shall be approved by the supervisor assigned for the practice period. It should include the following:

- the theme of the practice period
- place and timing
- the studies or issues in the student's education to which the practice and its theme are connected
- activities included in the practice
- personal objectives for the practice period
- supervision arrangements
- how the work practice period will be evaluated

*Work Experience Report:* The report is based on the theme of the work experience period. The form of the report will be agreed on upon the approval of the working plan by the student advisor at the university. The length of the report depends on the progress of the work experience period in general. Thematic Practice is an advanced course and the report must therefore also contain theoretical aspects based on scientific literature, and also explain how the latter relate to the theme and activities in the work experience period.
If the practice period has been divided into multiple parts, a plan and report for each inclusive period must be completed separately. The cumulative length of written work shall correspond to the general length of the documents for the entire period.

A Master’s thesis cannot be accepted as a report in the above sense. However, you can make use of the report for your Master’s thesis.

**Supervision:**
The students shall independently arrange for an advisor from the Faculty depending on the theme of the work experience. Supervision is divided into two sessions, pre-work experience guidance, and post-work experience guidance (2 h altogether). During the pre-work experience guidance session, the working plan for the practice period is discussed and then approved by the supervisor. During the post-work experience guidance session, the work experience itself is discussed retrospectively with reference to the objectives outlined in the pre-work session.

If the work practice is in the form of school experience, the student should arrange for a host advisor, and for a supervisor in other forms of work experience.

**Target group:**
Primary teacher students

**Prerequisites and co-requisites:**
Student may begin this practice period after successful completion of the following: Orientation to School Work (2 credits), Bachelor Level School Experience (6 credits), a minimum of 20 credits of basic studies in the major subject in the teacher education programme, and a minimum of 20 credits of intermediate studies in the major subject in the teacher education programme.

Students who have completed the intermediate studies in general education are also required to have completed at least one course of advanced studies in education for teacher students.

**Recommended optional programme components:**
The practice belongs to the major subject studies in the Master's Degree and is a part of the Pedagogical Studies for Teachers.

**Recommended or required reading:**
To be agreed on personally.

**Assessment methods and criteria:**
The evaluation is based on the student's self-assessment and on assessment feedback collected by the student in the practice environment or on evaluative materials illustrative of the progress of teaching or educational work. In her/his working plan, the student reports the grounds and practices of assessment to the advisor in charge of the practice period.

The practice period is assessed by the Faculty's student advisor in charge of Thematic Practice.

**Grading:**
fail/pass/pass with distinction

**Person responsible:**
Vesa-Matti Sarenius

**Working life cooperation:**
Yes. The practice is carried out in an educational field task.

**Other information:**

**Registration:**
The student delivers a letter signed by the Faculty to the practice place, requesting permission for the work experience. Consent is signed by both the hosting supervisor and a Faculty representative, who will also function as the student's supervisor at the university. The student will deliver copies of the signed letter of consent to both. The Faculty representative's date of signature is the date of registration for this particular practice period. The Faculty's student advisor will keep the consent letter for the duration of the practice period (at a minimum).

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408019S: Basics of educational administration, 2 op

**Voimassaolo:** 01.08.2005 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuysiksikkö:** Faculty of Education

**Arvostelu:** 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
2 cr

Language of instruction:
Finnish

Timing:
4th or 5th year

Learning outcomes:
Upon completion of the study module, the student
- knows the main acts and decrees governing educational administration as well as their contents
- knows how to apply educational administration legislation into practice at their own level of education
- knows how to use the Finlex software.

Contents:
The course aims to give the student a mastery of the basic legislation governing school administration and teaching as well as work as a civil servant in public administration. In addition, the student will gain an understanding of her/his rights in the teaching profession and knows how to seek for more information if necessary. During the course, the student is introduced to the administration system and work as a civil servant within the framework of the duties and functional possibilities set by current legislation and standards.

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures and exam 16 h, small-group work and an assignment 4 h.

Target group:
Primary teacher students, early childhood education students

Prerequisites and co-requisites:
None

Recommended optional programme components:
None

Recommended or required reading:
To be announced at the start of the course

Assessment methods and criteria:
Face-to-face teaching and individual tasks if any

Grading:
pass/fail

Person responsible:
Leena Syrjälä

Working life cooperation:
None

413030S: Advanced course in quantitative research, 5 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opettajat: Peltonen, Jouni Aslak
Opintokohteen kielet: Finnish
Leikkaavuudet:
**ECTS Credits:**
5 cr

**Language of instruction:**
Finnish

**Timing:**
4th year

**Learning outcomes:**
Having completed the course, the student
- knows how to analyse and interpret typical educational and psychological research data
- knows how to assess the credibility, reliability and ethicality of her/his own research and research done by others

**Contents:**
Course is divided into two parts:

413030S-01 1.1 Lectures, 3 credits
413030S-02 1.2 Exercises, 2 credits
- statistical testing
- classic multivariate methods
- modelling by means of liner structural equations
- publishing the results of statistical methods of analysis in a research report

**Mode of delivery:**
Face-to-face teaching

**Learning activities and teaching methods:**
Lectures 22 h, small group sessions 16 h

**Target group:**
Students pursuing Advanced Studies in the Faculty of Education

**Prerequisites and co-requisites:**
Basic course in quantitative research 5 cr.

**Recommended optional programme components:**
Master's Thesis

**Recommended or required reading:**
OR

**Assessment methods and criteria:**
Assignments, active participation in small group sessions

**Grading:**
0 - 5

**Person responsible:**
Jouni Peltonen

**Working life cooperation:**
None

Compulsory

413030S-01: Advanced course in quantitative research, lectures and literature, 2 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Advanced Studies
413030S-02: Advanced course in quantitative research, exercises, 3 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Advanced Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

413031S: Advanced course in qualitative research, 5 op

Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opettajat: Anu Alanko
Opintokohteen kielet: Finnish
Leikkaavuudet:

408517S-02 Qualitative Methodology 5.0 op

ECTS Credits:
5 cr

Language of instruction:
Finnish

Timing:
4th year

Learning outcomes:
Having completed the course, the student
- knows how to analyse and interpret typical educational and psychological research data
- knows how to assess the credibility, reliability and ethicality of her/his own research and research done by others

Contents:
Course is divided into two parts:

413031S-01 2.1 Lectures, 2 credits
413031S-02 2.2 Exercises, 3 credits
- meaning of different paradigms in the analysis and interpretation of qualitative research data
- content analysis as a basic form in the analysis of qualitative research data
- different ways to read data in, for instance, design or action studies, ethnographic and narrative research and discourse analysis
- proving credibility in qualitative research
- research reporting in qualitative research
- ethical issues in qualitative research

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures 22 h, small group sessions 16 h
Target group:
Students pursuing Advanced Studies in Education/ Music Education

Prerequisites and co-requisites:
Basic course in qualitative research 5 cr.

Recommended optional programme components:
Master's Thesis

Recommended or required reading:
Course material availability can be checked here.

Assessment methods and criteria:
Exam, active participation in small group sessions, an essay

Grading:
0 - 5

Person responsible:
Leena Syrjälä

Working life cooperation:
No

Compulsory

413031S-01: Advanced course in qualitative research, lectures and literature, 2 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Advanced Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

413031S-02: Advanced course in qualitative research, exercises, 3 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Advanced Studies
Laji: Partial credit
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Tutkintorakenteisiin kuulumattomien opintokokonaisuuksien ja -jaksojen kuvaukset
A200055: Orientation-based studies (TEKNO-Bachelor), 7 op

Voimassaolo: 01.08.2010 -
Opiskelumuoto: Intermediate Studies
Laji: Study module
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
10 credits

Language of instruction:
Finnish

Timing:
1st, 2nd and 3rd years

Learning outcomes:
The student knows how to choose and analyse some subject matter of technology education that is relevant for educational research of technology education.

Contents:
407033A Science Culture and technology, 3 credits
404005A Mathematics Learning Aids, 2 credits
405039A Basics of Entrepreneurship Education, 2 credits
405040A School Applications of Technology Education, 3 credits

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Vary by course.

Target group:
Students in the Technology Oriented Primary Teacher Education Programme

Prerequisites and co-requisites:
None

Recommended optional programme components:
The Bachelor-level module of Orientation Specific Studies is constituted by the above courses.

Recommended or required reading:
To be agreed on a course by course basis.

Assessment methods and criteria:
Vary by course.

Grading:
pass/fail

Person responsible:
Matti Lindh

Working life cooperation:
None

407033A: Science Culture and Technology, 2 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
3 cr
Language of instruction: Finnish
Timing: 2nd year

Learning outcomes:
- After completion students will have a clear picture of the developmental stages of maths and natural sciences and the nature of scientific and mathematical knowledge and practice.
- Students are familiar with the world view according natural sciences and its foundations.
- Students understand the significance of maths and natural sciences in technological knowledge and practice and in their mutual interaction.
- Students have the capacity to cover these themes in their own teaching work.

Contents:
- Developmental stages in mathematical and natural sciences culture
- What is science?
- Physical and chemical knowledge and practice
- Structures of nature
- Core theory in physics: relativity theory and quantum mechanics
- Pseudoscience
- Alternating themes from the field of science and technology (incl. applications for schools)

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures 30 h and independent work 50 h

Target group:
Technology Oriented Primary Teacher Education

Prerequisites and co-requisites:
No

Recommended optional programme components:
No

Recommended or required reading:
Lecture materials on the course webpages, material produced during the course

Assessment methods and criteria:
completion of set assignments

Grading:
0 - 5

Person responsible:
Kaisa Hautala

Working life cooperation:
No

404005A: Mathematics manipulatives, 2 op

Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä

ECTS Credits:
2 cr
Language of instruction:
Finnish

Timing:
2nd year

Learning outcomes:
The student
- identifies various learning aids in mathematics, knows how to use them in the teaching of different contents in mathematics
- knows how to design and manufacture various learning aids for mathematics

Contents:
Getting acquainted with mathematics learning aids. Design and making of learning aids, experimenting with them in a classroom situation.

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures and exercises 10 h, teaching experiment 2 h, independent work 42 h.

Target group:
Technology Oriented Primary Teacher Education

Prerequisites and co-requisites:
None

Recommended optional programme components:
Didactics of Mathematics: Part I and II

Recommended or required reading:
To be agreed on at the start of the course.

Assessment methods and criteria:
Writing an article.

Grading:
Pass/fail

Person responsible:
Vesa-Matti Sarenius

Working life cooperation:
Yes. Teaching experiment 2 h.

405039A: Basics of Entrepreneurship Education, 2 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
2 cr

Language of instruction:
Finnish

Timing:
2nd year
Learning outcomes:
After the course, the student identifies the concepts of corporate and individual entrepreneurship. The student is familiarised with the application of these concepts to basic education as part of his/her own and pupils' work in the form of assignments to be carried out. The assignments help the students to get an idea of what an enterprising life attitude is all about, what the requirement of future working life are like and how they are used in teaching. After the course, the student knows how to design examples of applications and know how to analyze curricula as outlined in "Yrittäjyyyskasvatuksen suuntaviivat 2015". The goal is to interpret and solve together issues involving entrepreneurship education as part of the pedagogical activity of the school. After the course, the thematic entity "Inclusive citizenship and entrepreneurship" is identified as a positive working method.

Contents:
- theory of entrepreneurship education
- social status of entrepreneurship education
- policy decisions in education policy as part of the educational system
- creativity, innovation, production of ideas, taking responsibility, decision-making
- familiarisation with and analysis of curricula for basic education
- practical arrangements for a corporate visit and legislation
- characteristics of an enterpriser
- significance of motivation and volition in teaching through entrepreneurship education as part of the teaching activities
- personal economics management
- the effect of the hidden curriculum in a learning environment

Thematic entities:
- Inclusive citizenship and entrepreneurship
- Man and technology

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures 14 h, exercises 6 h, independent work 34 h

Target group:
Technology Oriented Primary Teacher Education

Prerequisites and co-requisites:
None

Recommended optional programme components:
None

Recommended or required reading:

You can check for the availability of course books here.

Assessment methods and criteria:
Active participation in lectures and exercises and completion of study assignments.

Grading:
Pass/fail

Person responsible:
Juha-Matti Turpeinen

Working life cooperation:
None

405040A: School Applications of Technology Education, 3 op
ECTS Credits: 3 cr
Language of instruction: Finnish
Timing: 2nd or 3rd year

Learning outcomes:
Students are able to form a primary basic school-level topics and themes, which are learned through technological world of different objects, components and structures of functions.

Contents:
Technology Education of the theoretical basis of the criteria established themes and themes with a pedagogical and didactic aim is to learn to see the phenomena of technological criteria.

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
39 h. The course initially as lectures, which presents the theoretical basis of technology education concrete school level applications. Each student produces a single theme, and a concrete product that the written report.

Target group:
Technology-oriented teacher education

Prerequisites and co-requisites:
No

Recommended optional programme components:

Recommended or required reading:
Material distributed during the course concrete material in written form and online material.

Assessment methods and criteria:
Active participation in lectures, demonstrations and exercises as well as their material of manufacture of concrete.
Grading:
Pass/fail

Person responsible:
Matti Lindh

Working life cooperation:
No

A200056: Orientation-based studies (TEKNO-Master), 13 op

Voimassaolo: 01.08.2010 -
Opiskelumuoto: Intermediate Studies
Laji: Study module
Vastuuyksikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
10 credits
Language of instruction:
Finnish
Timing:
4th and 5th years
Learning outcomes:
The students knows how to choose and use research methods, data and theories that result in productive educational research in technology education.
Contents:
408022S Application of Research to the Research of Technology Education, 4 credits
405041S Mathematics Teaching/Learning Processes as a Research Object, 3 credits
405042S Technology Education as a Research Object, 3 credits

Mode of delivery:
Face-to-face teaching
Learning activities and teaching methods:
Vary by course.
Target group:
Students in the Technology Oriented Primary Teacher Education Programme
Prerequisites and co-requisites:
None
Recommended optional programme components:
The Master-level study module of Orientation Specific Studies is constituted by the above courses.
Recommended or required reading:
To be agreed on a course by course basis.
Assessment methods and criteria:
Vary by course.
Grading:
pass/fail
Person responsible:
Matti Lindh

408022S: Application of Research Methods to Technology Education Research, 4 op

Voimassaolo: 01.08.2006 -
Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuyksikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish
Voidaan suoritaa useasti: Kyllä

ECTS Credits:
4 cr
Language of instruction:
Finnish
Timing:
4th year
Learning outcomes:
The student know how to use research methods of education in the context of technology education.
Contents:
Different content areas of technology education, problematized for study by quantitative and qualitative means.

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures 12 h, exercises 28 h.

Target group:
Technology Oriented Primary Teacher Education

Prerequisites and co-requisites:
None

Recommended optional programme components:
411006A Research Course I, 413005S Research Course II.

Recommended or required reading:
Literature on educational research methods.

Assessment methods and criteria:
Participation in lectures and exercises as well as writing an essay on research methodology in technology education.

Grading:
0 - 5

Person responsible:
Matti Lindh

Working life cooperation:
None

405041S: Mathematics Teaching-Learning Processes as a Research Object, 3 op

Voimassaalo: 01.08.2011 -
Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuysikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
3 cr

Language of instruction:
Finnish

Timing:
4th year

Learning outcomes:
Having completed the course, the student:
- knows how to define the basic principles of doing research in mathematics teaching-learning processes: theory, empiry, research problems, method, conclusions
- knows how to explain the newest ideas and research results in mathematics and science teaching and learning
- is able to evaluate critically research in subject didactics and to produce it her/himself
- shows constructive criticism and debating skills in the context of subject didactics

Contents:
- Principles and practices of doing research in subject didactics
- Writing and evaluation of a thesis

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures 4 h, seminar work 16 h, independent work 60 h

Target group:
Technology Oriented Primary Teacher Education

Prerequisites and co-requisites:
None

Recommended optional programme components:
Didactics of Mathematics: Parts I and II

Recommended or required reading:
Learning materials to be agreed on at the start of the course

Assessment methods and criteria:
Doing research in subject didactics

Grading:
0 - 5

Person responsible:
Vesa-Matti Sarenius

Working life cooperation:
None

405042S: Technology Education as a Research Object, 3 op

Voimassaolo: 01.08.2011 -
Opiskelumuoto: Advanced Studies
Laji: Course
Vastuuyksikkö: Faculty of Education
Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

ECTS Credits:
3 cr

Language of instruction:
Finnish

Timing:
4th year

Learning outcomes:
Having completed the course, the student knows how to
- take into account the special characteristics of technology education in research.
- define the technology education learning environment.
- compose a general survey of the essence of research in technology education on a general level.
- make conclusion based on scientific considerations on different research possibilities in technology education.
- choose a relevant and topical research object in technology education.
- construct a research plan in technology education.

Contents:
The course consists of two parts:
1. Lectures (1 credit)
2. Examination (2 credits)

Mode of delivery:
Face-to-face teaching

Learning activities and teaching methods:
Lectures 30 h

**Target group:**
Technology Oriented Primary Teacher Education

**Prerequisites and co-requisites:**
None

**Recommended optional programme components:**
408022S Application of Research Methods to Technology Education Research, 4 credits; 405041S Mathematics Teaching-Learning Processes as a Research Object, 3 credits

**Recommended or required reading:**
To be agreed on at the start of the course

**Assessment methods and criteria:**
Active participation in face-to-face teaching, written outputs and exam.

**Grading:**
0 - 5

**Person responsible:**
Jaakko Nykänen and Matti Lindh

**Working life cooperation:**
None