# **Opasraportti**

# FMed - Health Science Teacher, MHSc (2018 - 2019)

## **MASTER'S DEGREE IN HEALTH SCIENCES (120 ECTS cr)**

## MASTER'S PROGRAMME IN HEALTH SCIENCES TEACHER EDUCATION

The Master's degree (MHSc) in Health Sciences at the University of Oulu is based on the Government Decree on University Degrees 794/2004. The degree programme leads to the degree of Master of Health Sciences (120 ECTS). The studies for Master's degree in Health Sciences (second-cycle university degree) are different in each Master's programme according to the chosen specialization. Upon completion of the Master's degree, the student is eligible for applying for further academic education (doctoral degree). Students who have obtained Bachelor's and Master's Degrees in Health Sciences, qualify for various demanding positions in social welfare and public health care including positions in planning, development, research, teaching and management on both national and international level.

## LEARNING OBJECTIVES FOR THE MASTER'S DEGREE IN HEALTH SCIENCES

The learning objectives correspond to the aims of the Finnish National Framework for Qualifications and other Learning.

Upon completion of the Master's degree in Nursing Science students has reached the following learning objectives:

## Multi-disciplinary and highly specialized nursing science knowledge and continued learning:

- The student is able to analyze extensive and highly specialized knowledge of the concepts, theories and methods in nursing science at the level of an expert
- The student has the competence required for postgraduate studies and for continuous learning

## Analytical thinking and problem solving skills:

• The student is able to analyze critically the issues related to nursing science and closely related disciplines; to solve challenging problems in accordance with evidence-based knowledge in education, research and innovation activities in the field of social welfare and healthcare

#### Collaboration and communication skills:

- The student is able to work independently and cooperatively and evaluate one's own actions as well as actions of the group
- The student has adequate skills in oral and written communication and demonstration required for national and international collaboration (in Finnish, Swedish and in one foreign language).

## Technology skills:

• The student is able to use diverse technology and digital solutions in retrieval of information, in communication and collaboration.

## Leadership and entrepreneurship:

- The student is able to manage issues and lead people, to make decisions and to develop inventively activities in collaboration with actors and entrepreneurs in the field of social welfare and health care
- The student is able to manage and develop complex, innovative and new approaches for diverse teaching and coaching in healthcare education and operational environment of clinical nursing.

## Flexibility and ethics:

• The student is able to work flexibly and in an ethically sustainable way in the changing operational environments of social welfare and healthcare

## STRUCTURE OF THE MASTER'S DEGREE IN HEALTH SCIENCES

## Course Structure Diagram 2018- 2019

The Master's Programme in Health Sciences consists of the following areas of competence: Nursing Science, Scientific Practices and Research Skills, Minor Subject in Didactics / Teacher's Professional Development. Minor Subject and Optional Studies.

## **ADVANCED STUDIES IN NURSING SCIENCE 67 ECTS cr**

## Nursing science 52 ECTS cr

Upon completion of this area of competence, the student is able to analyze and evaluate critically multidisciplinary and highly specialized nursing science and research, and to apply it to the working life in the field of social and health care. The student is able to solve demanding problems independently and collaboratively in health care research and innovation according to evidence-based practice. The student is able to manage issues and draw conclusions on operations in the field of health care. The student is able to assess actions of other individuals and groups at national and international level.

## Advanced studies included in the area of competence:

353101S Nursing Science II: Scientific knowledge within nursing science as a basis for developing social and health care 5 ECTS cr

353215S Nursing Science III: Leadership and innovation in evidence based practice 7 ECTS cr

353225S Master Thesis and Research Seminars 40 ECTS including part I and II:

353226S Master Thesis and Research Seminars Part I 15 ECTS cr

353227S Master Thesis and Research Seminars part II 25 ECTS cr

353205S Written Maturity Test 0 ECTS cr

#### Scientific Practices and Research Skills 15 ECTS cr

Upon completion of this area of competence, the student is able to define and interpret characteristics of qualitative and quantitative research and draw conclusions on main methodological issues. The student is able to apply ethically different types and approaches of research for working life problem solving in the field of social welfare and health care. The student is able to use digital technology independently for retrieval of evidence-based information, communication and collaboration.

## Advanced studies included in the area of competence:

353203S The Application of Research Methods in Health Sciences 10 ECTS cr 352252S Methods of Statistical Analysis in Health Sciences 5 ECTS cr

#### MINOR SUBJECT IN DIDACTICS OF NURSING SCIENCE 35 ECTS cr

The Master's Programme in Health Sciences Teacher Education includes obligatory minor subject in didactics of nursing science, which is completed during the master's studies. The minor subject in didactics of the nursing science starts already during Bachelor's studies. In addition, the student may orient her/his studies according to personal objectives and Personal Study Plan (e-PSP) by including in the degree study modules of different sciences completed / to be completed in Finland or abroad.

## Teachers' Professional Development 35 ECTS cr

Upon completion of this area of competence, the student is able to plan, practice and critically evaluate evidence-based teaching with consideration of working life context in educational institutions, clinical, in diverse teaching environments. The student is able to analyze and produce digital learning materials, develop different educational methods according to the learning process. The student is able to apply evidence-based knowledge and decision-making skills in teaching, and manage issues and lead people also in challenging teaching situations. The student is able to evaluate not only her/his own actions and development of her/his competence, but also that of other individuals and groups. The student is able to recognize the importance of a continuous follow-up of personal development.

## Studies included in the area of competence:

352208A Introduction to Didactics of the Nursing Science 5 ECTS cr

352122A Educational Administration and Practical Teacher Training part I 5 ECTS cr

352119A Planning the Content and Methods of Instruction 5 ECTS cr

352121A Evaluation in Teaching and Education 5 ECTS cr

352210A Practical Teacher Training part II 10 ECTS cr

352211A Practical Teacher Training part III 5 ECTS cr

## **OPTIONAL STUDIES 18 ECTS cr**

Optional studies are basic, intermediate or advanced studies and study modules completed at the Research Unit of Nursing Science and Health Management or other units of the University of Oulu and at other national/international universities.

Following studies arranged by the Research Unit of Nursing Science and Health Management may be included in Minor or Optional Studies:

#### Health Promotion 25 ECTS cr:

352261A Health Promotion 10 ECTS cr

353113S The Effective Patient Education in Nursing and Nursing Science 8 ECTS cr

352262A Wellbeing and Functional Ability Supporting Environment 7 ECTS cr

## Other single study units:

354202A Research Ethics in Health Sciences 5 ECTS cr

354205A Health Sciences Marketing 2-5 ECTS cr

352228A Elective Course on Advanced Research 3-10 ECTS cr

352212A Digital Pedagogy 3-5 ECTS cr

## ARRANGEMENTS FOR RECOGNITION OF PRIOR LEARNING

Recognition of prior learning (RPL) follows the main principles as defined by the University of Oulu. According to University of Oulu Education Regulations, paragraph 27 Accreditation of studies taken elsewhere and recognition of prior learning, the principles concerning accrediting studies taken in other Finnish and foreign universities and other educational institutions are stipulated in the curricula or other regulations, unless they have not been stipulated elsewhere. For further information see <a href="http://www.oulu.fi">http://www.oulu.fi</a> /university/node/34963.

Studies to be credited based on Master's degree in health care from university of applied sciences, and studies completed at other universities requires separate application procedure through OSAT system.

Application for recognition of prior learning has to be submitted to the teacher responsible for the study unit in question. The decision is made by the Director of the Master's Programme in Health Sciences Teacher Education.

## Studies to be credited in Master's Degree in Health Sciences

Based on a prior Master's degree in healthcare from a university of applied sciences not more than 18 ECTS or may be credited in optional studies by the Programme Director of the Master's Programme in Health Sciences Teacher Education. The recognition of the previous studies requires separate application procedure (RPL- process).

## STUDIES OF MASTER'S DEGREE IN HEALTH SCIENCES PER TERM

1st term / autumn

## **Nursing Science**

353101S Nursing Science II: Scientific knowledge within nursing science as a basis for developing social and health care 5 ECTS cr

## Scientific Practices and Research Skills

353203S The Application of Research Methods in Health Sciences 10 ECTS cr

352252S Methods of Statistical Analysis in Health Sciences 5 ECTS cr

## Teachers' Professional Development

352208A Introduction to Didactics of the Nursing Science 5 ECTS cr 352122A Educational Administration and Practical Teacher Training part I 5 ECTS cr 352119A Planning the Content and Methods of Instruction 5 ECTS cr

## 2<sup>nd</sup> term / spring

## Nursing Science

353215S Nursing science III: Leadership and innovation in evidence based practice 7 ECTS cr

353226S Master Thesis and Research Seminars Part I 5 ECTS cr *Teachers' Professional Development* 

352121A Evaluation in Teaching and Education 5 ECTS cr

352210A Practical Teacher Training part II 10 ECTS cr

## 3<sup>rd</sup> term/autumn

## **Nursing Science**

353226S Master Thesis and Research Seminars Part I 10 ECTS cr

353227S Master Thesis and Research Seminars part II 20 ECTS cr *Teachers' Professional Development* 352211A Practical Teacher Training part III 5 ECTS cr

## 4th term / spring

353227S Master Thesis and Research Seminars part II 5 ECTS cr

353205S Written maturity test 0 ECTS cr

Optional Studies 18 ECTS cr

## **Tutkintorakenteet**

# Master's Programme in Health Sciences Teacher Education, MHSc

Tutkintorakenteen tila: published

Lukuvuosi: 2018-19

Lukuvuoden alkamispäivämäärä: 01.08.2018

## Advanced Studies in Nursing Science (vähintään 67 op)

Includes the following areas of competence:

Nursing Science 52 ECTS cr

Scientific practices and research skills 15 ECTS cr

H540303: Nursing Science, advanced studies, teacher, 67 op

Advanced Studies in Nursing Science, Health Science Teacher Education

353101S: Nursing Science II: Scientific knowledge within nursing science as a basis for developming social and health care, 5 op

353215S: Nursing science III: Leadership and innovation in evidence based practice, 7 op

353225S: Mater Thesis and Research Seminars, 40 op

353226S: Master Thesis and Research Seminars Part I, 15 op

353227S: Master Thesis and Research Seminars part II, 25 op

353205S: Written maturity test, 0 op

353203S: The Application of Research Methods in Health Sciences, 10 op

352252S: Methods of Statistical Analysis in Health Sciences, 5 op

## Minor Subject in Didactics of Nursing Science (35 op)

Teacher's Professional Development skills 35 ECTS cr

The Master's Degree in the Health Sciences Teacher Education Programme includes 35 ECTS cr of obligatory studies in didactics. These are completed as minor studies during the studies for a Master's degree.

A540304: Didactics in nursing science, 35 op

Minor Subject in Didactics of Nursing Science

352208A: Introduction to Didactics of Nursing Science, 5 op

352122A: Educational Administration and Practical Teacher Training part I, 5 op

352119A: Planning the Content and Methods of Instruction, 5 op

352121A: Evaluation in Teaching and Education, 5 op 352210A: Practical Teacher Training part II, 10 op 352211A: Practical Teacher Training part III, 5 op

## Optional Studies (vähintään 18 op)

Studies completed at the University of Oulu or other universities according to the electronic Personal Study Plan (ePSP).

For example the following studies, arranged by the Research Unit of Nursing Science and Health Management, may be included in Optional Studies:

#### Health Promotion 25 ECTS cr:

352261A Health Promotion 10 ECTS cr

353113S The Effective Patient Education in Nursing and Nursing Science 8 ECTS cr

352262A Wellbeing and Functional Ability Supporting Environment 7 ECTS cr

#### Other single study units:

354202A Research Ethics in Health Sciences 5 ECTS cr

354205A Health Sciences Marketing 2-5 ECTS cr

352228A Elective Course on Advanced Research 3-10 ECTS cr

352212A Digital pedagogy 3-5 ECTS cr

# Opintojaksojen kuvaukset

# Tutkintorakenteisiin kuuluvien opintokohteiden kuvaukset

H540303: Nursing Science, advanced studies, teacher, 67 op

Opiskelumuoto: Advanced Studies

Laji: Study module

Vastuuyksikkö: Health Sciences

Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

Advanced Studies in Nursing Science, Health Science Teacher Education

# 353101S: Nursing Science II: Scientific knowledge within nursing science as a basis for developming social and health care, 5 op

Voimassaolo: 01.08.2013 -

Opiskelumuoto: Advanced Studies

Laji: Course

Vastuuyksikkö: Health Sciences

Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

## **ECTS Credits:**

5 ECTS cr

## Language of instruction:

Finnish

## Timina:

1st autumn term, 1st period of Master's studies

## Learning outcomes:

Upon completion of the course the student is able: 1. to discuss relevant questions of research and project development in nursing science, 2. to find and use up-to-date and reliable information of nursing science, 3. to evaluate the quality of information within nursing science, 4. to apply theories and research results of nursing science for solving problems in professional settings based on evidence based practice and expertise in nursing science.

#### Contents:

Current issues of nursing science. Types of nursing sciences and evaluation of information. Research and theories of nursing sciences as a foundation for evidence based practice. Evidence based knowledge. Evidence based practice in social and health care.

## Mode of delivery:

Contact teaching

#### Learning activities and teaching methods:

Activating teaching 20 h, work in small groups 45 h and independent learning assignment 63 h and updating of expert portfolio 5 h, personal study plan 2 h.

## Target group:

Master Degree students in nursing science and in health sciences teacher education. Orientation for the master studies.

### Prerequisites and co-requisites:

Completion of the following courses prior to enrolling for this course: Bachelor Thesis and Nursing Science I.

## Recommended optional programme components:

No

#### Recommended or required reading:

- 1. Lauri S ja Kyngäs H. 2006. Hoitotieteen teorian kehittäminen. Sanoma Pro Oy.
- 2. Korhonen A, Jylhä V, Korhonen T, Holopainen A. 2018. Näyttöön perustuva toiminta –tarpeesta tuloksiin. Hotus/Skhole, Hoitotyön tutkimussäätiö.
- Current international scientific articles.

#### Assessment methods and criteria:

Active participation in contact teaching, evidence-based group work using digital media, and independent learning assignment with self-evaluation. Read more about <u>assessment criteria</u> at the University of Oulu webpage.

#### **Grading:**

1-5 / fail

## Person responsible:

University lecturer

#### Working life cooperation:

Learning assignment with working life relevance

#### 353215S: Nursing science III: Leadership and innovation in evidence based practice, 7 op

Opiskelumuoto: Advanced Studies

Laji: Course

Vastuuyksikkö: Health Sciences

Arvostelu: 1 - 5, pass, fail Opintokohteen kielet: Finnish

#### **ECTS Credits:**

7 ECTS cr

#### Language of instruction:

Finnish

#### Timing:

1st spring term, 3rd period of Master's studies

## Learning outcomes:

Upon completion of the course, the student is able to analyze and evaluate critically knowledge and research in nursing science, and to apply it to the field of social and health care. The student is able to solve demanding problems independently and collaboratively in health care research and innovation according to evidence based practice. The student is able to manage issues and draw conclusions on operations in the field of health care. The student is able to evaluate actions of other persons and groups. Evidence based nursing tip.

#### Contents:

Extensive and diverse knowledge and research in nursing science. Applying of nursing science.

#### Mode of delivery:

Blended teaching

## Learning activities and teaching methods:

Tutored exercises 20 h, work in small groups, retrieval, production and evaluation of data 145 h, oral group examination, peer-evaluation and feedback in groups.

#### Target group:

Master Degree students in nursing science and in health sciences teacher education

## Prerequisites and co-requisites:

Nursing Science II, The Application of Research Methods in Health Sciences

## Recommended optional programme components:

Major in nursing science, subject and advanced studies

#### Recommended or required reading:

Current international and national scientific articles.

Korhonen A, Jylhä V, Korhonen T, Holopainen A. 2018. Näyttöön perustuva toiminta –tarpeesta tuloksiin. Hotus /Skhole, Hoitotyön tutkimussäätiö. Soveltuvin osin.

#### Assessment methods and criteria:

Lectures/tutored exercises, active participation in group work and tutored exercises, oral group examination. The students will complete collectively an assignment and an oral examination, which will be assessed using self-evaluation, peer evaluation and teacher's evaluation. Read more about <u>assessment criteria</u> at the University of Oulu webpage.

#### **Grading:**

1-5 / fail

## Person responsible:

Professor

## Working life cooperation:

Assignment with working life relevance

## 353225S: Mater Thesis and Research Seminars, 40 op

Opiskelumuoto: Advanced Studies

Laji: Course

Vastuuyksikkö: Health Sciences

Arvostelu: 1 - 5, pass, fail Opintokohteen kielet: Finnish

## **ECTS Credits:**

40 ECTS cr, including the following courses:

353226S Master Thesis and Research Seminars Part I (15 ECTS cr)

353227S Master Thesis and Research Seminars Part II (25 ECTS cr)

See individual courses for detailed descriptions.

## 353226S: Master Thesis and Research Seminars Part I, 15 op

Opiskelumuoto: Advanced Studies

Laji: Course

Vastuuyksikkö: Health Sciences

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

#### **ECTS Credits:**

15 ECTS cr

#### Language of instruction:

Finnish

## Timing:

1<sup>st</sup> spring term, 3rd and 4<sup>th</sup> period and 2<sup>nd</sup> autumn term, 1<sup>st</sup> and 2<sup>nd</sup> period of Master degree studies

## Learning outcomes:

Upon completion of the course the student is able to justify critically one's research topic with working life orientation, and plan and complete independently acceptable research plan. The student is able to evaluate and apply methodological choices in the different stages of the research plan. The student is able to analyze and give feedback to peer-student's research plan using information and communications technology. The student is able to produce Master thesis.

#### Contents:

Idea paper, agreement of supervision, drafting a research plan. Scientific group discussions and peer-evaluation of research plan.

#### Mode of delivery:

Tutored group work, using information and communications technology

## Learning activities and teaching methods:

Group tutoring: offered 32 h per academic year, mandatory participation 8 h. Public defenses of doctoral theses 3 h + 3 h, group work with peer-students in the e-learning environment 10 h, and independent studying 381 h.

#### **Target group:**

Master Degree students in nursing science and in health sciences teacher education

## Prerequisites and co-requisites:

Completion with pass of the research method studies included in the Bachelor degree and Bachelor Thesis

## Recommended optional programme components:

None

#### Recommended or required reading:

Polit DF & Beck CT (2011) Nursing research: generating and assessing evidence for nursing practice. 9. ed. Wolters Kluwer Health/Lippincott Williams & Wilkins, Philadelphia. National and international scientific literature relevant to the topic and methods of the Master thesis.

#### Assessment methods and criteria:

Preparing of an idea paper and agreement of supervision. Participation in public defenses of doctoral theses and reporting in e-learning environment. Participation in tutored group work in e-learning environment. Peer-evaluation of research plan. Accepted research plan. Read more about <u>assessment criteria</u> at the University of Oulu webpage.

#### **Grading:**

Pass / fail, self- and peer evaluation

#### Person responsible:

University lecturer

## Working life cooperation:

The student is able to choose research topic with working life relevance, which supports his/her own expertise.

## 353227S: Master Thesis and Research Seminars part II, 25 op

Opiskelumuoto: Advanced Studies

Laji: Diploma thesis

Vastuuyksikkö: Health Sciences

Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

#### **ECTS Credits:**

25 ECTS cr

#### Language of instruction:

Finnish

#### Timing:

Master degree studies, 2nd autumn term, 1st and 2nd periods and 2nd spring term, 3th and 4th periods

## Learning outcomes:

Upon completion of the course the student as a specialist is able to create a thesis or a scientific article independently or as a member of a research project group by analyzing and applying the information and skills of research methods gained during one's study. The student is able to create thesis based on working life relevance and his/her own expertise in schedule agreed with the supervisor. The student masters the chosen research methods, and is able to evaluate and conclude critically, and to justify decisions made within one's own thesis. The student has knowledge and skills enabling participation in scientific discussion and postgraduate education.

#### Contents:

Familiarizing with international scientific literature related to the subject and research methods of the Master thesis. Producing a Master thesis or article in accordance with set scientific criteria. Critical discussion on thesis, presentation of results and conclusions.

## Mode of delivery:

Individual/group tutoring using information and communications technology

#### Learning activities and teaching methods:

Individual or group tutoring 25 h, reading of national and international literature related to research topic and methods 300 h, writing of a thesis or scientific article 350 h.

## Target group:

Master Degree students in nursing science and in health sciences teacher education

#### Prerequisites and co-requisites:

In order to participate in this course the student must have passed the following studies: research method studies included in Bachelor degree, Bachelor Thesis, and Master Thesis and Research Seminars part I.

## Recommended optional programme components:

Student must have accepted research plan and agreement of supervision prepared during the course 353226S Master Thesis and Research Seminars part I. Written maturity test 353205S.

## Recommended or required reading:

Polit DF & Beck CT (2011) Nursing research: generating and assessing evidence for nursing practice. 9. ed. Wolters Kluwer Health/Lippincott Williams & Wilkins, Philadelphia, national and international scientific literature relevant to topic and methods of the thesis.

#### Assessment methods and criteria:

Production of a thesis or scientific article. Written maturity test (for further information see 353205S). Read more about assessment criteria at the University of Oulu webpage.

## **Grading:**

1-5 / fail

## Person responsible:

University lecturer

## Working life cooperation:

The student is able to produce thesis with working life relevance, which supports his/her own expertise.

#### 353205S: Written maturity test, 0 op

Opiskelumuoto: Advanced Studies

Laji: Course

Vastuuvksikkö: Health Sciences

Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

#### **ECTS Credits:**

0 ECTS cr

#### Language of instruction:

Finnish or Swedish; English, if the Master thesis has been written in English.

## Timing:

Varies. The student must complete written maturity test in connection with and as a part of the student's Master's thesis. The student can register for maturity test as soon as she/he has submitted the thesis for review and the supervisor has given her/his permission to register.

## Learning outcomes:

The student is able to communicate in Finnish or Swedish and show thorough knowledge of the field of his / her thesis. If the student has taken the maturity test in connection with the Bachelor degree and showed good command in Finnish or Swedish language in it, she/he doesn't have to show it anymore in connection with the Master's degree. However, the student must still take the maturity test and show in it thorough knowledge of the field of her/his thesis.

## Contents:

Maturity test connected to the field of the student's Master's thesis

## Mode of delivery:

Written maturity test connected to the master thesis

## Learning activities and teaching methods:

The student writes the maturity test usually in one of the national languages of Finland (Finnish or Swedish), in which she/he has received her/his school education. If the mother tongue of the student is other than Finnish or Swedish, the Faculty of Medicine will determine separately required language studies.

## Target group:

Master degree students in nursing science, health science teacher education and health management science

#### Prerequisites and co-requisites:

Master's thesis and supervisor's permission to register for maturity test

#### Assessment methods and criteria:

See <u>general instructions</u> of the maturity test at the University of Oulu (in Finnish). An abstract of the Master thesis can be accepted as a maturity test if the student has showed good command of language in written maturity test of the Bachelor thesis. Read more about <u>assessment criteria</u> at the University of Oulu webpage.

#### **Grading:**

Pass / fail

#### Person responsible:

Supervisor of the Master thesis and teacher of the university's Languages and Communications of the Oulu Extension School

## 353203S: The Application of Research Methods in Health Sciences, 10 op

Opiskelumuoto: Advanced Studies

Laji: Course

Vastuuyksikkö: Health Sciences

Arvostelu: 1 - 5, pass, fail

Opettajat: Heidi Siira, Outi Kanste Opintokohteen oppimateriaali: Polit, Denise F.,, 2004, pakollinen

Paunonen, M. & Vehviläinen-Julkunen, K, , 1997, pakollinen

Morse, Janice M., , 1995, pakollinen

Janhonen, S & Nikkonen, M, , 2003, pakollinen

Karma, Kai, , 1990, pakollinen

Perttula J. & Latomaa T, , 2005, pakollinen

Opintokohteen kielet: Finnish

#### **ECTS Credits:**

10 ECTS cr

## Language of instruction:

Finnish

#### Timing:

Master degree studies, 1st autumn term, 1st and 2nd period

## Learning outcomes:

Upon completion of the course the student is able to apply in learning assignment one's previous knowledge of research methods.

The student is able to discriminate between and interpret characteristics of quantitative and qualitative research and draw conclusions on main methodological issues.

The student is able to plan and lead activities of one's tutorial group for reaching a joint goal.

The student is able to plan, create and evaluate different approaches of qualitative and quantitative research in research plan and in preparation of digital learning assignments.

The student is able to organize different stages of a research process and form a logical whole of them.

The student is able to analyze reliability and ethical questions of quantitative and qualitative research and evaluate them in one's research plan and learning assignment.

The student is able to use work-related digital skills in preparation of the research plan and learning assignments.

The student has gained skills and knowledge necessary for completion of research seminars and Master's thesis.

## **Contents:**

Methodological characteristics of quantitative and qualitative research, types of/approaches in research, phases of research process, assessment of reliability, ethical issues in research. Collective implementation of learning assignments and research plan using digital learning solutions.

## Mode of delivery:

Collective learning, learning diary (blog), peer and group evaluation

#### Learning activities and teaching methods:

Lectures and tutored exercises 40 h, independent and collective studying 20 h. Writing of a research plan and learning assignments in groups based on topics with working life relevance and using digital skills 210 h.

## **Target group:**

Master degree students in nursing science, health science teacher education and in health management science

### Prerequisites and co-requisites:

The student must have completed with pass research method studies included in the Bachelor degree and Bachelor thesis.

#### Recommended optional programme components:

This course is an independent entity and doesn't require completion of other simultaneous studies.

#### Recommended or required reading:

Polit DF & Beck CT (2011) Nursing research: generating and assessing evidence for nursing practice. 9. ed. Wolters Kluwer Health/Lippincott Williams & Wilkins, Philadelphia.

Denzin, Norman K. & Lincoln, Yvonna S. (eds.) 2011. The sage Handbook of Qualitative Research. 4th ed. Thousand Oaks, CA: SAGE. (Soveltuvin osin, ainakin osat III /Strategies of Inquiry/ ja IV /Methods of Collecting and Analyzing Empirical Materials/) and

National and international literature and scientific articles relevant to research plan and learning assignments.

#### Assessment methods and criteria:

Active participation in lectures, collective group work and preparation of learning assignments and research plan. Read more about assessment criteria at the University of Oulu webpage.

## **Grading:**

1-5 / fail, group- and peer-evaluation

## Person responsible:

University lecturers of nursing science and health management science

#### Working life cooperation:

During the course the students use and apply digital learning solutions relevant for working life cooperation.

#### 352252S: Methods of Statistical Analysis in Health Sciences, 5 op

Opiskelumuoto: Advanced Studies

Laji: Course

Vastuuvksikkö: Health Sciences

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

#### Required proficiency level:

In order to participate, student must have completed all the courses included in A500105 Knowledge Management and Research totaling 10 ECTS cr.

#### **ECTS Credits:**

5 ECTS cr

#### Language of instruction:

Finnish

## Timing:

Master degree studies, 1st autumn term 1st period

## Learning outcomes:

Upon completion of the course the students are able to plan collection of data, to transfer the data into a form which can be processed with a computer and to use independently statistical software for processing and analysis of data. The students are able to apply basic statistical methods in analysis of research problems. The students know multivariate and other special statistical methods used for analysis of data in health sciences. Additionally, the students are able to report research results and to recognize the issues which are important in interpreting the results published in international publications of health sciences.

#### Contents:

Basic concepts of statistics. Design of studies. Data collection. Data preparation. Using statistical software. Choosing the methods of analysis. Comparing groups. Repeated measurements. Studying associations. Multivariable methods. Regression models. Reliability. Reporting the results. Article evaluation.

#### Mode of delivery:

Contact teaching and group exercises.

## Learning activities and teaching methods:

Lectures 28h, group exercises 21h and learning assignments.

## Target group:

From 2017 Curriculum onward Master students of health sciences.

## Recommended or required reading:

Lecture presentations and supplementary group work materials. Uhari M ja Nieminen P: Epidemiologia ja biostatistiikka. ("Epidemiology and biostatistics"; no translation in English.) 2nd edition Duodecim, 2012.

## Assessment methods and criteria:

Final examination, accepted learning assignments and participation in group exercises Read more about assessment criteria at the University of Oulu webpage.

## **Grading:**

Pass / fail

## Person responsible:

University lecturer Pentti Nieminen

## A540304: Didactics in nursing science, 35 op

Voimassaolo: 01.08.2011 -

Opiskelumuoto: Intermediate Studies

Laji: Study module

Vastuuyksikkö: Health Sciences

Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

Minor Subject in Didactics of Nursing Science

## 352208A: Introduction to Didactics of Nursing Science, 5 op

Voimassaolo: 01.08.2005 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Health Sciences

Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

#### **ECTS Credits:**

5 ECTS cr

#### Language of instruction:

Finnish and English

## Timing:

Master degree studies, summer term, 1st period

## Learning outcomes:

Upon completion of the study unit, the student is able to plan evidence based teaching, evaluate different learning theories, strategies, processes and teaching methods and to analyze one's own learning. Student is

able to evaluate variable learning environments, use the online learning environment in one's own learning and use digital learning materials. Student is able to discuss ethical issues related to health sciences teacher's workstrategies.

## **Contents:**

Evidence based teaching. Learning theories, strategies and processes. Teaching methods. Learning environments. Ethical issues related to health sciences teacher's profession.

## Mode of delivery:

Online learning. Blended teaching in Finnish and English.

## Learning activities and teaching methods:

Online learning and assignments 132 h. Online-exam (examinarium) 3 h.

#### **Target group:**

Students of the Master's programme in health sciences teacher education

#### Prerequisites and co-requisites:

Bachelor of Health Sciences

## Recommended optional programme components:

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#### Recommended or required reading:

Saaranen, T ym. (2016) Terveysalan opettajan käsikirja. Oermann MH (2013) Teaching in nursing and role of the educator. In addition current scientific literature and research.

#### Assessment methods and criteria:

Active participation and working in virtual learning environment is required. All learning assignments and online-exam (examinarium) must be completed with pass.

The students will be assessed using self-evaluation and teacher's evaluation. For assessment there will be used matrix based on the learning outcomes of the study unit. Read more about <u>assessment criteria</u> at the University of Oulu webpage.

#### **Grading:**

1-5 / fail

## Person responsible:

University teachers

## Working life cooperation:

Workshop with experts from working life

## 352122A: Educational Administration and Practical Teacher Training part I, 5 op

Voimassaolo: 01.08.2006 -

**Opiskelumuoto:** Intermediate Studies

Laji: Practical training

Vastuuyksikkö: Health Sciences

Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

## **ECTS Credits:**

5 ECTS cr

## Language of instruction:

Finnish and English

## Timing:

Master degree studies, autumn term, 1st period

#### Learning outcomes:

Upon completion of the study unit, the student is able to analyze educational and administrative system in health care and identify legal and ethical responsibilities and rights of the student and teacher in professional collaboration.

The student is able to solve problems related to educational systems and administration in accordance with evidence based knowledge.

The student is able to evaluate and report by observation healthcare teaching in educational institutions, businesses and third sector organizations.

The student is able in professional collaboration to plan communication and marketing to strengthen the knowledge about health science teacher education in educational institutions, businesses and third sector.

The student is able to plan evidence-based teaching.

The student is able to recognize the importance of a continuous follow-up of one's personal development.

#### Contents:

Organization, administration, legislation of health care education. Legal and ethical responsibilities and rights of students and teachers in health care. Building of working life cooperation. Active observation and reporting of teacher's work. General plan for practical teacher training. Evidence-based teaching.

## Mode of delivery:

Contact and virtual teaching in Finnish and English. The students have a possibility to complete part of their practical teacher training in international degree programmes or abroad via exchange programme.

## Learning activities and teaching methods:

Blended teaching. Workshops 12 h, active observation of teaching 10 h. Independent study 34 h by familiarizing with relevant literature, scientific articles and guides. Collaborative task 20 h. Preparing a blog diary for recording evaluation of one's own learning and relevant learning experiences 27 h. Preparing a general plan for practical teacher training 32 h.

#### Target group:

This study unit is for students of the Master's programme in Health Sciences Teacher Education

#### Prerequisites and co-requisites:

352208A Introduction to Didactics of the Nursing Science

#### Recommended optional programme components:

Other study units of Didactics in Nursing science

## Recommended or required reading:

Saaranen, T. ym. (2016), Terveysalan opettajan käsikirja. Oermann MH (2013) Teaching in nursing and role of the educator.

Legislation regulating vocational and higher education in the field of health care, publications and teaching materials of the Finnish National Agency for Education, curricula in health care education. Scientific national and international literature in educational sciences and in the didactics of nursing science.

### Assessment methods and criteria:

Active participation in workshop and work in virtual learning environment is required. Active observation of teaching will be reported in a blog diary. Preparation of general plan for practical teacher training and collaborative assignments in communication and marketing.

All learning assignments must be completed with pass. The assessment of the study unit is based on learning outcomes. Students' will be assessed using self-evaluation, peer-evaluation and teacher's evaluation. Read more about assessment criteria at the University of Oulu webpage.

## **Grading:**

Pass / fail

## Person responsible:

University teacher

#### Working life cooperation:

Observation of teacher's work in organizations, business and third sector. Building of working life cooperation.

## 352119A: Planning the Content and Methods of Instruction, 5 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Health Sciences

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

#### **ECTS Credits:**

5 ECTS cr

## Language of instruction:

**Finnish** 

## Timing:

Master degree studies, autumn term, 2<sup>nd</sup> period

## Learning outcomes:

Upon completion of the study unit, the student is able to plan a concept map related to the content and methods of one's own teaching in educational institutes or clinical nursing. The students is able to plan learning outcomes and to analyze curricula process. The student is able to evaluate critically both one's own personal learning and that of other students, to give and receive constructive and developing evidence-based feedback.

#### Contents:

Theories related to the curriculum. The curriculum. Concept mapping.

#### Mode of delivery:

Blended teaching

## Learning activities and teaching methods:

Interactive teaching 15 h, cooperative study in e-learning environment 50 h. Working with curriculum 40 h. Retrieval, study and critical evaluation of relevant literature 30 h.

#### Target group:

For students of the Master's Programme in Health Sciences Teacher Education

#### Prerequisites and co-requisites:

352208A Introduction to Didactics of the Nursing Science

#### Recommended optional programme components:

Other study units of Didactics in Nursing science

## Recommended or required reading:

Saaranen T. ym. (2016) Terveysalan opettajan käsikirja. Learning materials include also current national and international literature and research in nursing didactics related to studies of teaching and concept mapping methods, curriculum planning, and curricula. Additionally, learning materials include national and international literature and studies in the nursing science related to the subject the student is teaching.

#### Assessment methods and criteria:

This study unit utilizes continuous assessment. The students will compile three versions of a concept map, which will be assessed using self-evaluation, peer-evaluation and teacher's evaluation throughout the study unit. The assessment criteria are based on the learning outcomes of the study unit. Read more about <a href="mailto:assessment">assessment</a> criteria at the University of Oulu webpage.

#### **Grading:**

Pass / fail

#### Person responsible:

Professor

#### Working life cooperation:

Assignment with working life relevance

## 352121A: Evaluation in Teaching and Education, 5 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Health Sciences

Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

#### **ECTS Credits:**

5 ECTS cr

#### Language of instruction:

Finnish and English

#### Timing:

Master degree studies, spring term, 3<sup>rd</sup> period

#### Learning outcomes:

Upon completion of the study unit, the student is able to plan, apply and critically evaluate student's competence and learning based on criteria. The student is able to experiment different kinds of evaluation methods. The student is able to analyze and critically evaluate health care education, teaching, learning and profession of a teacher on the grounds of evidence-based knowledge. The student is able to apply legal and ethical principles in evaluation and assessment.

#### Contents:

Evaluation as a phenomenon. Evaluation of student's competence and learning. Evaluation of teaching and education. Ethical principles in evaluation.

#### Mode of delivery:

Blended teaching in Finnish and English

### Learning activities and teaching methods:

Interactive teaching 20 h, collaborative learning 5 h and assignments in evaluation of learning 56 h and education 24 h. Independent studying including familiarizing with scientific literature and evaluation of literature 30 h.

#### Target group:

For students of the Master's programme in Health Sciences Teacher Education

## Prerequisites and co-requisites:

352119A Planning the Content and Methods of Instruction and 352122A Educational Administartion and Practical Teacher Training part I.

## Recommended optional programme components:

Other study units of Didactics in Nursing science

## Recommended or required reading:

Saaranen, T. ym. (2016), Terveysalan opettajan käsikirja. Oermann MH (2013) Teaching in nursing and role of the educator. Publications and teaching materials of the Finnish National Agency for Education. Current national and international scientific literature.

## Assessment methods and criteria:

This study unit utilizes continuous assessment. The student takes an active part (minimum 80%) in contact teaching and collaborative learning. Two collective assignments with self-, peer- and teacher's evaluation and in working life cooperation. The assessment matrixes of the study unit are based on the learning outcomes of the study unit. The grading is determined on the base of the collective assignments (70 % / 30%). Read more about assessment criteria at the University of Oulu webpage.

## **Grading:**

1-5 / fail

#### Person responsible:

University teacher

## Working life cooperation:

Planning, implementation and assessment of evaluation of teaching in co-operation with the institution representing working life relevance. Evaluation of education in working life cooperation.

## 352210A: Practical Teacher Training part II, 10 op

Opiskelumuoto: Intermediate Studies

Laji: Practical training

Vastuuyksikkö: Health Sciences

Arvostelu: 1 - 5, pass, fail Opintokohteen kielet: Finnish

#### **ECTS Credits:**

10 ECTS cr

## Language of instruction:

Finnish / English

#### Timing:

Master degree studies, spring term, 3<sup>rd</sup> and 4<sup>th</sup> period

#### Learning outcomes:

Upon completion of the study unit, the student is able to plan, practice and critically evaluate evidence-based teaching in educational institutions and in diverse teaching environments. The student is able to analyze and produce learning materials and utilize and modify different teaching methods in accordance with chosen learning process. The student is able to apply evidence-based knowledge and decision-making skills in teaching. The student is able to manage issues and lead people also in challenging teaching situations. The student is able to evaluate one's own actions and development of competence, and those of other persons and groups. The student is able to recognize the importance of a continuous follow-up of one's personal development and the teacher of the health field developing challenges and guidelines in the future.

#### Contents:

Curricula. Building contacts and collaboration with working life. Different learning environments. Reporting, planning and execution of teaching in educational institutions. Self-evaluation and peer evaluation of teaching. Learning materials and teaching methods. Personal learning diary. Developing challenges of the future of the teacher and of the teacher education.

## Mode of delivery:

The study unit will be conducted via contact teaching and as practical training in real working environments. The student has a possibility to complete the practical teacher training in international degree programmes or abroad via exchange programme.

#### Learning activities and teaching methods:

Workshops 20 h (3 workshops and seminar), planning of teaching (theme plans) 120 h and teaching practice 15 h (10 teaching events), peer-evaluation 15 h, familiarizing with national and international literature 80 h. Reporting of self-evaluation and of significant learning experiences (in one's own blog) 20 h.

## **Target group:**

For students of the Master's Programme in Health Sciences Teacher Education

#### Prerequisites and co-requisites:

352208A Introduction to Didactics of the Nursing Science, 352119A Planning the Content and Methods of Instruction, 352122A Educational Adminstration and Practical Teacher Training part I, 352121A Evaluation in Teaching and Education

#### Recommended optional programme components:

Other study units of Didactics in Nursing Science

#### Recommended or required reading:

Saaranen, T. ym. (2016), Terveysalan opettajan käsikirja. Oermann MH (2015) Teaching in nursing and role of the educator. National and international scientific literature and research in nursing science related to the subject, which the student is going to teach. National and international scientific literature in educational sciences and in the didactics of nursing science.

## Assessment methods and criteria:

During the study unit, the student will compile his own blog. The student will plan teaching in the form of theme plans. Teaching practice will be completed in an educational institution, which will be assessed using self-evaluation, peer-evaluation and teacher's evaluation. Every theme plans and every teaching events have to be acceptably performed. The assessment is continuous and based on the assessment matrix. Read more about assessment criteria at the University of Oulu webpage.

## **Grading:**

Pass / fail

#### Person responsible:

University teacher

## Working life cooperation:

Practical teacher training. Building of working life contacts.

#### 352211A: Practical Teacher Training part III, 5 op

Opiskelumuoto: Intermediate Studies

Laji: Practical training

Vastuuyksikkö: Health Sciences

Arvostelu: 1 - 5, pass, fail
Opintokohteen kielet: Finnish

**ECTS Credits:** 

5 ECTS cr

#### Language of instruction:

Finnish / English

#### Timing:

Master degree studies, 2<sup>nd</sup> autumn term, 2<sup>nd</sup> period

## Learning outcomes:

Upon completion of the study unit, the student is able to plan, practice and critically evaluate teaching and learning. The student is able to produce with a domestic or foreign language the digital teaching materials, which are based on evidence-based knowledge and to try out different teaching methods in different learning environments. The student is able to manage issues and lead people. The student is able to develop and create new approaches to the supplementary education. The student is able to evaluate one's own teaching and that of other students. The student is able to prepare a teaching portfolio and evaluate one's personal teaching merits using principles of developing evaluation. The student recognizes the importance of a continuous follow-up of one's personal development.

#### Contents:

Team teaching. Planning and execution of teaching in as a blended learning realizable supplementary education. Self-evaluation and peer-evaluation of teaching. Learning materials and teaching methods. Entrepreneurship, internationality and multiculturalism in work of the teacher of the health field. Teacher portfolio.

#### Mode of delivery:

The study unit will be conducted via contact teaching and practical teacher training in working life collaboration. The student has a possibility to complete practical teacher training in international degree programmes or abroad via international exchange programmes.

#### Learning activities and teaching methods:

Contact teaching 10 h, planning of teaching by familiarizing with relevant national and international literature 20 h, teaching practice 5 h (2 teaching events), peer-evaluation 2 h, written assignments of practical teacher training (theme plans, written peer-evaluations) 20 h, preparing own teaching portfolio 80 h and reporting of self-evaluation and of significant learning experiences (in his own blog, learning diary) 8 h.

## Target group:

For students of the Master's Programme in Health Sciences Teacher Education

#### Prerequisites and co-requisites:

352208A Introduction to Didactics of the Nursing Science, 352119A Planning the Content and Methods of Instruction, 352122A Educational Adminstration and Practical Teacher Training part I, 352121A Evaluation in Teaching and Education, 352210A Practical Teacher Training part II

## Recommended optional programme components:

Other study units of the Didactics in Nursing Science

#### Recommended or required reading:

National and international scientific literature and research in nursing science related to the subject which the student is going to teach. National and international scientific literature in educational sciences and in the didactics of nursing science.

#### Assessment methods and criteria:

The students carry out teaching in the supplementary education. The students will design the teaching practice and draw up theme plans in the cooperation. Teaching practice will be assessed using self-evaluation, peer-evaluation and teachers' evaluation. Every theme plans and every teaching events have to be acceptably performed. The assessment is continuous and based on the assessment matrix. The students will write their own

blog and teacher portfolio during the study unit. Read more about <u>assessment criteria</u> at the University of Oulu webpage.

## **Grading:**

Pass / fail

## Person responsible:

University teacher

## Working life cooperation:

Practical teacher training III will be carried out in cooperation with working life (Northern Ostrobothnia Hospital District).