

# Opasraportti

## FMed - Nursing Science, MHS c (2018 - 2019)

### MASTER OF HEALTH SCIENCES (MHS c) 120 ECTS cr

#### MASTER'S PROGRAMME IN NURSING SCIENCE

The Master's degree (MHS c) 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 of the Master's Programme correspond to the aims of the Finnish [National Framework for Qualifications and other Learning](#).

##### 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 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:

- Student is able to use diverse technology and digital solutions in retrieval of information, in communication and collaboration.

##### Leadership and entrepreneurship:

- Student in a role of an expert in clinical care and nursing science 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, health care

**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](#)

At the University of Oulu the Master's Programme in Health Sciences consists of following areas of competencies: Nursing Science, Scientific Practices and Research Skills, Clinical Specialist's Development in Nursing Science, Minor Subject and Optional Studies.

**ADVANCED STUDIES IN NURSING SCIENCE 87 ECTS cr*****Nursing science 52 ECTS cr***

Upon completion of this area of competence, the student is able to analyze and evaluate critically multi-disciplinary 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 cr 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
- 352252AS Methods of Statistical Analysis in Health Sciences 5 ECTS cr

***Specialist's Development in Nursing Science 20 ECTS cr:***

The student is able to evaluate basics of clinical care and nursing science, expert roles and task descriptions and future requirements at national and international level. The student is able to work as an

expert in different multidisciplinary working teams, solve problems critically and lead evidence-based practice and development of nursing.

#### **Advanced studies included in the area of competence:**

351180S Fundamentals of Clinical Care and Nursing Science 5 ECTS cr

352227A Leadership in Evidence Based Practice 5 ECTS cr

352226S Clinical Training 10 ECTS cr

#### **MINOR SUBJECT 25 ECTS cr**

The student may orient the studies according to personal objectives and Personal Study Plan (e-PSP) by including in the degree university level study modules (at least 25 ECTS cr) of different sciences to be completed in Finland or abroad.

It could be, for example, Health Promotion study module (25 ECTS cr) arranged by the Research Unit of Nursing Science and Health Management including

#### **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

#### **OPTIONAL STUDIES 8 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. Optional studies may include single study units.

For example, 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

#### **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 <http://www oulu.fi /university/node/34963>.

Recognition of studies based on prior 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 Programme Director of the Master's Programme in Nursing Science.

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

Based on a previous Master's degree from a university of applied sciences not more than 8 ECTS cr may be credited in optional studies by the Programme Director of the Master's Programme in Nursing Science. The recognition of the prior studies requires separate application procedure (RPL- process).

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

### 1<sup>st</sup> 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

#### ***Specialist's Development in Nursing Science***

351180S Fundamentals of Clinical Care and Nursing Science 5 ECTS cr

352227S Leadership in Evidence Based Practice 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

#### ***Specialist's Development in Nursing Science***

352226S Clinical Training 10 ECTS cr

***Minor Subject 5 ECTS cr***

***Optional Studies 3 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

4<sup>th</sup> term / spring

### ***Nursing Science***

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

353205S Written maturity test 0 ECTS cr

***Minor Subject 20 ECTS cr***

***Optional Studies 5 ECTS cr***

## **Tutkintorakenteet**

### **Master's Programme in Nursing Science, MHSc**

Tutkintorakenteen tila: published

Lukuvuosi: 2018-19

Lukuvuoden alkamispäivämäärä: 01.08.2018

### **Advanced studies in Nursing Science (vähintään 87 op)**

Includes the following areas of competence:

Nursing Science 52 ECTS cr

Scientific practices and research skills 15 ECTS cr

Specialist's Development in Nursing Science 20 ECTS cr

A540303: Nursing Science, advanced studies, 60 - 87 op

#### ***Advanced Studies in Nursing Science***

353101S: Nursing Science II: Scientific knowledge within nursing science as a basis for developing 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

351180S: Fundamentals of clinical care and nursing science, 5 op

352227S: Leadership in Evidence Based Practice, 5 op

352226S: Clinical training, 10 op

### **Minor Subject (vähintään 25 op)**

The student may orient the studies according to his/her personal objectives and Personal Study Plan (ePSP) by including in the degree university level study modules (at least 25 ECTS cr) from different sciences to be completed in Finland or abroad.

It could be, for example, the Health Promotion study module (25 ECTS cr), organized by the Research Unit of Nursing Science and Health Management (University of Oulu), including:

**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

**Optional Studies (vähintään 8 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 courses:**

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

## Opintojaksojen kuvaukset

### Tutkintorakenteisiin kuuluvien opintokohteiden kuvaukset

**A540303: Nursing Science, advanced studies, 60 - 87 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*

**353101S: Nursing Science II: Scientific knowledge within nursing science as a basis for developing 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

**Timing:**

1st autumn term, 1<sup>st</sup> 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.
3. 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 [assessment criteria](#) 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:**1<sup>st</sup> spring term, 3<sup>rd</sup> 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 [assessment criteria](#) 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, 3<sup>rd</sup> 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 [assessment criteria](#) 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, 1<sup>st</sup> and 2<sup>nd</sup> periods and 2<sup>nd</sup> spring term, 3<sup>th</sup> and 4<sup>th</sup> 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

**Vastuuyksikkö:** 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 [general instructions](#) 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 [assessment criteria](#) 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. (Soveltuvien 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

**Vastuuyksikkö:** 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, 1<sup>st</sup> autumn term 1<sup>st</sup> 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

**351180S: Fundamentals of clinical care and nursing science, 5 op**

**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

**Timing:**

Master degree studies, 1<sup>st</sup> autumn term, 2<sup>nd</sup> period

**Learning outcomes:**

The student is able to analyze and combine his/her earlier research and developments skills in development of personal expertise. After completion of the study unit, the student is able to discuss and evaluate the fundamentals of clinical care, nursing science and expert roles, and tasks and to follow and interpret future needs of the working life in national and international level. The student is able to plan and evaluate in the portfolio his /her knowledge and skills in the future role of an expert. The student as an expert is able to work in changing work life situations and use creative problem-solving skills and innovativeness. The student deepens his/her expertise by organizing independently a visit to an expert organization and reports the visit using information and communication technology.

**Contents:**

Fundamentals and special characteristics of clinical care and nursing science. Relevance, roles and tasks of an expert in clinical nursing science in organizations within social and health care. Models of expertise. Reworking the portfolio as a part of the development of the expertise.

**Mode of delivery:**

Blended teaching using information and communication technology

**Learning activities and teaching methods:**

Contact teaching 6 h, seminar 4 h, familiarizing independently with expert role and operations of one health care organization 10 h, reworking the portfolio 20 h, independent and collective work 95 h.

**Target group:**

Master Degree students of the degree programme in nursing science

**Prerequisites and co-requisites:**

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

**Recommended optional programme components:**

Reworking portfolio prepared during study unit 353235A Nursing Science and Training in Expertise Development 10 ECTS cr

**Recommended or required reading:**

Krista Jokiniemi. 2014. Clinical Nurse Specialist Role in Finnish Health Care. Publications of the University of Eastern Finland. Dissertations in Health Sciences. Current national and international scientific literature and articles.

**Assessment methods and criteria:**

Active participation in contact teaching, visit to organization, portfolio and participation in seminar, group assignment. Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

1-5 / fail

**Person responsible:**

University lecturer

**Working life cooperation:**

Student plans, implements and reports visit to an expert organization.

**35227S: Leadership in Evidence Based Practice, 5 op**

**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

**Timing:**

Master degree studies, 1<sup>st</sup> autumn term, 2<sup>nd</sup> period

**Learning outcomes:**

The student is able to work as a care leader in planning, implementation and evaluation of evidence-based practice acknowledging the changes in operational environment of social welfare and health care organizations. The student is able to practice analytical thinking and problem-solving skills when managing and solving challenges of evidence-based practice in the work community.

**Contents:**

Evidence-based practices and the role of a nursing leader in evidence-based practice. Dissemination and use of evidence-based practice. Evaluation of impact of evidence-based practice.

**Mode of delivery:**

Study of literature, exam

**Learning activities and teaching methods:**

Independent studying of up-to-date national and international literature and scientific articles 131 h, completion of exam 4 h.

**Target group:**

Master students of the degree programme in nursing science

**Prerequisites and co-requisites:**

The student must have completed with pass major subject and research method studies included in the Bachelor degree. Completion of 351180S Fundamentals of clinical care and nursing science.

**Recommended optional programme components:**

None

**Recommended or required reading:**

Holopainen A. ym. 2013. Johda näyttö käyttöön hoitotyössä. Fioca Oy, Bookwell Oy. . Jokiniemi K. 2014. Clinical nurse specialist role in Finnish health care. Publications of the University of Eastern Finland. Dissertations in Health Sciences (where applicable). Current national and international scientific literature and articles.

**Assessment methods and criteria:**

Exam. Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

1-5 / fail

**Person responsible:**

University lecturer and doctoral student

**Working life cooperation:**

The student is able to combine working life relevance and theoretical knowledge in leadership of evidence-based practice.

**352226S: Clinical training, 10 op**

**Voimassaolo:** 01.08.2016 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Practical training

**Vastuuyksikkö:** Health Sciences

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

10 ECTS cr

**Language of instruction:**

Finnish

**Timing:**

According to individual plan. Recommended period of time is in spring/summer term after the 1st year of Master's studies.

**Learning outcomes:**

Upon completion of the course, the student has acquired research based expertise in clinical nursing and nursing science, emphasizing student's ability to plan and evaluate development of operations of social welfare and health care units and draw conclusions from it. The student is able to work in multi-professional expert groups. The student is able to prepare a final training report for recognizing and describing one's expertise.

**Contents:**

Practical training is implemented in a social welfare and health care organization in accordance with an individual plan. Final training report as a tool of expertise.

**Mode of delivery:**

Independent training in chosen organization

**Learning activities and teaching methods:**

Part 1: Drawing up an individual training plan in collaboration with the organization where the training will take place (10 h).

Part 2: Training and evaluation (240 h).

Part 3: Drawing up a final training report (13 h).

Part 4: Participation in research clubs (4 h) and in workshops (3 h).

**Target group:**

Students of the master's programme in nursing science

**Prerequisites and co-requisites:**

The student must have completed with pass the following course: 353101S Nursing science II, 351180S Fundamentals of clinical care and nursing science 5 ECTS cr, 352227S Leadership in Evidence Based Practice 5 ECTS cr.

**Recommended optional programme components:**

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**Recommended or required reading:**

Current national and international scientific literature. Valid legislation and strategic documents related to social welfare and health care.

**Assessment methods and criteria:**

Preparing a plan for practical training and a final training report. Practical training and participation in research clubs and workshops arranged by working life contacts. Writing a final training report with description of competence. Read more about [assessment criteria](#) at the University of Oulu webpage.

**Grading:**

Pass / fail

**Person responsible:**

University teacher

**Working life cooperation:**

Practical training, participation in research clubs and workshops arranged by working life contacts.