

# Opasraportti

**FMed - Health Management Science, MHS (2019 - 2020)**

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

## **MASTER´S PROGRAMME IN HEALTH MANAGEMENT SCIENCE**

The Master's degree (MHS) 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 cr). Upon completion of the Master's degree, the student is eligible for applying for further academic education (doctoral degree). Students who have obtained Master's Degree 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 PROGRAMME IN HEALTH MANAGEMENT SCIENCE**

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

After completion of the Master's Degree in Health Sciences the student is able to:

- critically acquire and evaluate the latest information of health care and use it independently and innovatively from the perspective of proactive decision making in relation to advanced studies of health science management;
- participate in research, expert tasks, management and development in health care;
- communicate orally and in writing in a clear and analytical manner;
- reflect on their own and to evaluate the activities and knowledge of the people acting in the operating environment;
- reflect one's own actions and competence and evaluate those of other people in the same operational environment;

- develop one's own knowledge and skills and those of other people acting in same operational environment in accordance with the changing requirements of the health sector;
- conduct scientific research applying scientific research methods and to engage in postgraduate studies in health management science;
- creative and critical scientific reasoning and of using scientific methods and approaches and technology for acquiring, production and evaluation of information;
- critically and creatively apply acquired information in work of his/her area of competence.

## STRUCTURE OF THE MASTER'S DEGREE IN HEALTH MANAGEMENT SCIENCE

### [Course Structure Diagram 2019 – 2020](#)

The Master's Degree in the Master's Programme in Health Management Science consists of following areas of studies: Health Management Science Studies, Scientific Practices and Research Studies and Minor Subject.

#### **ADVANCED STUDIES 95 ECTS cr**

##### **Health Management Science Studies 75 ECTS cr**

Studies included in the area of competence:

353330S Health Management Science I, 10 ECTS cr

353331S Leadership and Management in Health Care, 10 ECTS cr

353332S Leadership and Management Training, 10 ECTS cr

353333S Health Management Science II, 10 ECTS cr

353334S Master's Thesis and Research Seminar, Health Management Science, 35 ECTS cr

353205S Written Maturity Test, 0 ECTS cr

##### **Scientific Practices and Research Studies 20 ECTS cr**

Studies included in the area of competence:

353316S Research Methods in Nursing Science and Health Management Science, 5 ECTS cr

353306S Information Literacy and Data Analysis, 5 ECTS cr

353307S Planning and Conducting Scientific Research, 5 ECTS cr

352252S Methods of Statistical Analysis in Health Sciences, 5 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 completed / to be completed in Finland or abroad.

For example, the following minor subject studies, which are arranged by the Research Unit of Nursing Science and Health Management, can be taken and included as minor studies:

[A540315](#) Basic Studies in Management of Health and Well-being Promotion 25 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: <https://www oulu fi/forstudents/rpl>.

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 Health Management Science.

## MASTER'S DEGREE STUDIES IN HEALTH MANAGEMENT SCIENCE PER TERM

1st year / autumn term

### Scientific Practices and Research Studies

353316S Research Methods in Nursing Science and Health Management Science, 5 ECTS cr

### Health Management Science Studies

353330S Health Management Science I, 10 ECTS cr

### Minor Subject 15 ECTS cr

1st year /spring term

### Scientific Practices and Research Studies

353307S Planning and Conducting Scientific Research, 5 ECTS cr

353306S Information Literacy and Data Analysis, 5 ECTS cr

### Health Management Science Skills

353331S Leadership and Management in Health Care, 10 ECTS cr

353334S Master's Thesis and Research Seminar, Health Management Science, 35 ECTS cr. Student studies 5 ECTS cr at the spring term.

### Minor Subject 5 ECTS cr

2nd year / autumn term**Scientific Practices and Research Studies**

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

**Health Management Science Skills**

353332S Leadership and Management Training, 10 ECTS cr

353333S Health Management Science II, 10 ECTS cr. Student studies 5 ECTS cr at autumn term.

353334S Master's Thesis and Research Seminar, Health Management Science, 35 ECTS cr. Student studies 10 ECTS cr at autumn term.

2nd year /spring term**Health Management Science Skills**

353333S Health Management Science II, 10 ECTS cr. Student studies 5 ECTS cr at spring term.

353334S Master's Thesis and Research Seminar, Health Management Science, 35 ECTS cr. Student studies 20 ECTS cr at spring term.

353205S Written Maturity Test, 0 ECTS cr

**Minor Subject 5 ECTS cr**

## Tutkintorakenteet

### Master's Programme in Health Management Science, MHSc

Tutkintorakenteen tila: published

Lukuvuosi: 2019-20

Lukuvuoden alkamispäivämäärä: 01.08.2019

#### Advanced Studies in Health Management Science (95 op)

This ePSP structure is only meant for students who have been granted their study right according to the 2019-2020 curriculum.

Advanced Studies in Health Management Science, according to the curriculum 2019-2020, are 95 ECTS credits in total (Health Management Science Studies 75 ECTS credits, Research Methodology Studies 20 ECTS credits).

A544703: Health Management Science, advanced studies, 75 - 95 op

*Advanced Studies in Health Management Science*

353330S: Health Management Science I, 10 op

353331S: Leadership and Management in Health Care, 10 op

353332S: Leadership and Management Training, 10 op

353333S: Health Management Science II, 10 op

353334S: Master's Thesis and Research Seminar, Health Management Science, 35 op

353205S: Written maturity test, 0 op

353316S: Research Methods in Nursing and Health Management Science, 5 op

353306S: Information Literacy and Data Analysis, 5 op

353307S: Planning and Conducting Scientific Research, 5 op

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

## Minor Subject (vähintään 25 op)

Study module of at least 25 ECTS credits, completed at the University of Oulu or other university, according to electronic Personal Study Plan (ePSP).

## Opintojaksosten kuvaukset

### Tutkintorakenteisiin kuuluvien opintokohteiden kuvaukset

#### A544703: Health Management Science, advanced studies, 75 - 95 op

**Opiskelumuoto:** Advanced Studies

**Laji:** Study module

**Vastuuyksikkö:** Health Sciences

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

**Opettajat:** Marjo Suhonen

**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

*Advanced Studies in Health Management Science*

#### 353330S: Health Management Science I, 10 op

**Voimassaolo:** 01.08.2019 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Health Sciences

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

**Opettajat:** Marjo Suhonen

**Opintokohteen kielet:** Finnish

**Leikkaavuudet:**

ay353330S Health Management Science I (OPEN UNI) 10.0 op

**ECTS Credits:**

10 ECTS cr

**Language of instruction:**

Finnish

**Timing:**

Autumn, 1st autumn term 1st and 2nd period

**Learning outcomes:**

After the course the student is able to

-use new scientific research and focal concepts of health management science as well as use

organizational theories in health management and show own knowledge in portfolio  
 -know health management science's place in the field of different sciences, knows the history of health management science and shows it in portfolio  
 -critically evaluate own knowledge and development needs as a manager and leader in portfolio and also in conversations with other students among the studies  
 - present portfolio with working life relevance and portfolio that supports own learning in leadership interactively using creatively information and communication technology.

**Contents:**

Health management science as a research field and discipline, central concepts and theoretical approaches. Phenomena of health care administration and management in working life.

**Mode of delivery:**

Blended teaching

**Learning activities and teaching methods:**

Workshops 10 h, seminars 6 h, visits to companies/organizations 37 h, portfolio 90 h and independent studying 127 h.

**Target group:**

Undergraduate health management science students

**Prerequisites and co-requisites:**

No previous courses.

**Recommended or required reading:**

Syväjärvi A & Pietiläinen V (toim.) 2016. Inhimillinen ja tehokas sosiaali- ja terveysjohtaminen. Tampere University press. Link to online material: [https://tampub.uta.fi/bitstream/handle/10024/100410/Syvajarvi\\_%26\\_Pietilainen\\_OA.pdf?sequence=1](https://tampub.uta.fi/bitstream/handle/10024/100410/Syvajarvi_%26_Pietilainen_OA.pdf?sequence=1)

Hallinnon tutkimus journals. Focus Localis journals. Other relevant research and literature.

**Assessment methods and criteria:**

Active participation in workshops, seminars and web-based learning. Producing a portfolio, oral presentation of portfolio, visits to companies/organizations. The grading is based on portfolio, its presentation and active participation in workshops and seminar.

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

**Grading:**

1-5 / fail

**Person responsible:**

Marjo Suhonen

**Working life cooperation:**

Reflection of own knowledge with relation to the needs of working life. Visits to companies/organizations.

**353331S: Leadership and Management in Health Care, 10 op**

**Voimassaolo:** 01.08.2019 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Health Sciences

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

**Opettajat:** Heidi Pirkola, Marjo Suhonen

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

10 ECTS cr

**Language of instruction:**

Finnish. When necessary, the course can be completed in English.

**Timing:**

1st spring term, 3rd and 4th period.

**Learning outcomes:**

After the course the student is able to

- apply independently the concepts and models of health care management and social and health system from the viewpoint of organization theories and show ones know-how in written group work based on working life examples
- analyze and critically evaluate health care management and leadership as a whole, leadership in health care and leading workplace from the viewpoint of new scientific research and showing one's know-how in individual written essay and in exam in Exam system
- interpret, analyze and reflect in group work exercise not only the challenging situations of leadership and change processes in health care in demanding expert tasks of social and health care, but also related scientific research
- evaluate critically and create different solutions to these actual situations at work
- during a visit of an external expert ask questions and make comments relevant from the viewpoint of health care management
- in presentation of the group exercise use digital learning methods in a relevant way which also motivates other students to participate
- evaluate and give feedback on solutions of other students and
- receive constructive feedback on group exercise.

**Contents:**

Concepts, models and theoretical starting points of health care management and leadership. Organizational and administrative theories. New scientific research at the area. Challenging situations in management at work.

**Mode of delivery:**

Blended teaching

**Learning activities and teaching methods:**

Workshops 20 hours including lecture of a visiting working life expert. Preparing for exam and exam in Exam system (e-EXAM) 70 h, studying in small groups 100 h, independent studying 80 h. The course uses web-based learning environment.

**Target group:**

Students in health management science.

**Prerequisites and co-requisites:**

Student must complete 353330S Health Management Science I before this course.

**Recommended or required reading:**

**Literature for exam. Choose three titles from the following list:**

Ferlie Ewan, Montgomery Kathleen & Pedersen Anne R (Eds.) (2016) The Oxford handbook of health management. Oxford: Oxford university press.

Fried Bruce J., Fottler Myron D. (Eds.) Human resources in healthcare: managing for success. 4th ed. Chicago: Health Administration Press; Arlington, Va.: Association of University Programs in Health Administration, 2015.

Paasivaara, Leena & Suhonen, Marjo & Virtanen, Petri (2013): Projektijohtaminen hyvinvointipalveluissa. 2., tarkistettu ja ajantasaistettu laitos. Tietosanoma, Helsinki.

Pietiläinen, Ville & Syväjärvi, Antti (toim.). 2019. Johtamisen psykologia. Tulossa kesällä 2019.

Wolf Jason A. ym. (eds.). Organization development in healthcare: conversations on research and strategies. Bingley: Emerald Group, 2011.

**Supplementary course literature:**

[McLaughlin, Daniel B, Julie M. Hays](#). Healthcare operations management / Daniel B. McLaughlin, Julie M. Hays. Chicago: Health Administration Press; Washington, DC: AUPHA Press, 2008.

[Schwalbe, Kathy](#), Furlong Dan. Healthcare project management. Minneapolis, NN: Schwalbe Publishing, 2013.

Hyyryläinen Esa (toim.) Näkökulmia hallintotieteisiin. Vaasa: Vaasan yliopisto, 2012. [http://www.uwasa.fi/materiaali/pdf/isbn\\_978-952-476-380-6.pdf/](http://www.uwasa.fi/materiaali/pdf/isbn_978-952-476-380-6.pdf/) (SOVELTUVIN OSIN)

Virtanen, Turo ym. (toim.) Suomalainen hallinnon tutkimus: mistä, mitä, minne? Tampere University Press, 2011.

**Scientific, peer-reviewed journals, such as:** International Journal of Healthcare Management; Leadership in Health Services; International Journal of Quality in Health care; Journal of Health Care Compliance.

**Assessment methods and criteria:**

Independent and group work, exercises, exam, active participation in contact teaching. The total grade will be determined based on the grade of the group exercise and individual assignment. In case when the grade is settling between two grades the student can receive the higher one with active participation in contact teaching. Continuous assessment will be applied.

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

**Grading:**

1 - 5 / fail

**Person responsible:**

Marjo Suhonen

**Working life cooperation:**

Learning assignments with working life relevance, lecture by visiting working life expert.

**353332S: Leadership and Management Training, 10 op**

**Voimassaolo:** 01.08.2019 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Health Sciences

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

10 ECTS cr

**Language of instruction:**

The language of instruction is Finnish. When necessary, the course can be completed in English.

**Timing:**

Master degree studies, 2nd autumn semester, 1st and 2nd period. Practical training can be completed during summer.

**Learning outcomes:**

Upon completion of the course, the student is able to:

- analyze, interpret, critically evaluate and reflect on one's management competence in the field of administration, management or research in practical social and health care
- apply one's field-specific skills independently and in groups in practical training in accordance with the requirements of the duties in the chosen training job (knowledge of legislation, project management skills, financial administration skills)
- demonstrate in a portfolio one's development and competence as an expert and ability to apply knowledge in managerial, coordination, planning and organizational tasks in social and health care, and
- demonstrate one's performance, communication and technology skills when presenting the portfolio.

**Contents:**

Workplace visits and presenting them in the first seminar in small groups. Practical training as part of the course in national or international health care organization in accordance with personal training plan. In the second seminar one presents one's portfolio.

**Mode of delivery:**

Blended teaching

**Learning activities and teaching methods:**

Individual guiding in choosing the practical training place (2 h), group work in workplace visit and web-based work (6 h), practical training (6 weeks, 225 h), seminars (8 h) and independent work (29 h) in addition to practical training.

**Target group:**

Master Degree students in health management science.

**Prerequisites and co-requisites:**



353330S Health Management Science I and 353331S Leadership and Management in Health Care have to be accomplished before this course.

**Recommended or required reading:**

Relevant scientific articles and other literature

**Assessment methods and criteria:**

Participation in seminars, workplace visit and group work. Practical training in management in Finland or other countries and producing a portfolio.

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

**Grading:**

Pass / Fail

**Person responsible:**

Heidi Pirkola

**Working life cooperation:**

Practical training, learning assignments with working life relevance.

**353333S: Health Management Science II, 10 op**

**Voimassaolo:** 01.08.2019 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Health Sciences

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

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

10 ECTS cr

**Language of instruction:**

Finnish

**Timing:**

2nd year autumn and spring semesters, 2nd and 3rd periods.

**Learning outcomes:**

After the course the student is able to:

-retrieve newest scientific research and create in written assignment a research-based conceptual unity of a specific field of health care using the main concepts, models and theories of health management science and administrative studies and also health economics

-analyze and compare different kinds of viewpoints in health care management and leadership and critically evaluate own know-how in health management at the individual written assignment and oral presentation

-analyze in written assignment one's knowledge in health management science and consider it in relation to working life, especially to practical administration and management as well as critically evaluate, how scientific information and knowledge in health management science shows in developing health care,

-present one's written assignment orally and apply digital learning methods when doing so.

**Contents:**

Knowledge of health management science in health care development and management.

**Mode of delivery:**

Blended teaching

**Learning activities and teaching methods:**

Workshops 16 hours, participating and reporting doctoral defense 14 h, book summary 108 h, independent studying (including individual written assignment and learning in web-based environment) 132 h.

**Target group:**

Health management science students.

**Prerequisites and co-requisites:**

Student must complete following courses before this course: 353330S Health Management Science I, 353331S Leadership and Management in Health Care, and 353332S Leadership and Management Training.

**Recommended or required reading:**

Current research.

**Assessment methods and criteria:**

Active participation in workshops and web-based learning, one doctoral dissertation and reporting the doctoral dissertation as a part of individual written assignment, writing a book summary, writing an individual written assignment, oral presentation. Teacher assessment, peer evaluation and self-assessment.

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

**Grading:**

1-5 / fail. Book summary and participation in doctoral defense: pass/fail. Independent written assignment 1-5 / fail. The assessment is based on individual written assignment, oral presentation and active participation at the course.

**Person responsible:**

Marjo Suhonen

**Working life cooperation:**

Written assignment related to working life

**353334S: Master's Thesis and Research Seminar, Health Management Science, 35 op**

**Voimassaolo:** 01.08.2019 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Diploma thesis

**Vastuuyksikkö:** Health Sciences

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

**Opettajat:** Marjo Suhonen, Outi Kanste

**Opintokohteen kielet:** Finnish

**ECTS Credits:**

35 ECTS cr

**Language of instruction:**

Teaching language is Finnish. If needed the course can be completed in English.

**Timing:**

Master's degree studies 1st spring semester, 4th period and 2nd autumn semester, 1st and 2nd periods and 2nd spring semester, 3rd and 4th periods. Thesis started earlier can be continued during summer.

**Learning outcomes:**

Upon completion of the course, the student is able to

- search, use, evaluate and apply scientific information independently and on that basis, produce an acceptable written research plan in Finnish or in English
- justify critically and plausibly one's research topic with working life relevance
- evaluate, apply and justify methodological decisions in different phases of a research process
- analyze and give feedback on peer research plan using information and communication technology
- present and justify chosen topic and methodological decisions in different phases of a research process
- analyze orally, evaluate critically, independently and in small groups, one's own and other group members' research process and its different phases
- apply team work skills, flexibility and negotiation skills
- use digital learning solutions and demonstrate one's own performance skills and information and communication technology skills while presenting research plan
- apply and analyze information and skills on research methodology gained during one's studies and prepare independently or as a member of a research group a thesis or scientific article
- based on one's expertise, produce a thesis with working life relevance on schedule agreed on in

agreement of supervision

- justify and master research methods she/he has used in her/his thesis, analytical reasoning and problem-solving skills
- evaluate critically and draft conclusions critically and justify decisions made within one's thesis as well as during the tutor groups
- get readiness for participate in scientific discussions and postgraduate studies.

**Contents:**

Idea paper and agreement of supervision. Drafting an idea paper and a research plan. Scientific small group discussions and guidance. Peer group work on web-based learning environment involving group assignments and independent work. International scientific research related to the topic and research methods of the master's thesis. Producing a thesis or a scientific article in accordance with criteria set for scientific research. Critical discussion on thesis and presentation of results and conclusions.

**Mode of delivery:**

Individual tutoring in scientific small groups using information and communication technology and working in online peer-groups utilizing digital learning solutions.

**Learning activities and teaching methods:**

Info 2 h, working in scientific working group 6 h, preliminary assignments to scientific working group 6 h, working in online peer groups applying digital learning methods 6 h, retrieving and reading of the literature /research data, writing idea paper and research plan 350 h and writing of thesis or an article 575 h. The course uses web-based learning environment.

**Target group:**

Master's degree students in health management science.

**Prerequisites and co-requisites:**

The student must have completed all research methodology studies.

**Recommended optional programme components:**

353205S Written Maturity Test 0 ECTS cr

**Recommended or required reading:**

Current research and literature on research methodology.

Polit D F & Beck CT (2011, 2017). Nursing research: generating and assessing evidence for nursing practice. 9. ed. Wolters Kluwer Health/Lippincott Williams & Wilkins, Philadelphia.

Denzin & Lincoln (2011, 2017). The SAGE Handbook of Qualitative Research. Sage Publications Inc., Thousand Oaks.

**Assessment methods and criteria:**

Discussions of topic/idea of the thesis will take place in May. On the basis of discussion, the student will be able to rework one's thesis also during summer. The student will prepare the thesis either alone or with another student under supervision of 1–2 teachers. When agreed on separately, the Master's thesis can also be produced in form of a scientific article. Continuous assessment is applied in the course.

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

**Grading:**

1–5 / fail. Continuous evaluation, self- and peer-assessment.

**Person responsible:**

Outi Kanste for the research seminars, Outi Kanste and Marjo Suhonen for the Master's thesis.

**Working life cooperation:**

Topic of the thesis related to health care and with working life relevance will be discussed and chosen in collaboration with representation from working life. The student is able to produce a thesis that has working life relevance and supports student's own expertise. Collaboration with working life during the data collection phase.

**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

**353316S: Research Methods in Nursing and Health Management Science, 5 op**

**Voimassaolo:** 01.08.2019 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Health Sciences

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

**Opettajat:** Heidi Siira, Outi Kanste

**Opintokohteen kielet:** Finnish

**Leikkaavuudet:**

ay353316S    Research Methods in Nursing and Health Management Science (OPEN UNI)    5.0 op

**ECTS Credits:**

5 ECTS cr

**Language of instruction:**

Finnish

**Timing:**

1st autumn term, 1st period

**Learning outcomes:**

Upon completion of the course the student will be able to:

- compare and interpret the approaches and the nature of scientific research and to draw conclusions on common methodological issues.
- describe appropriate data collection and analysis methods
- organise and combine the stages of the research process to form a logical whole
- analyse and evaluate the reliability of research and ethical issues
- communicate according to good scientific practice and principles
- utilise digital solutions in learning.

**Contents:**

Different study designs, the main stages of the research process, methods in data collection and data analysis, evaluation of reliability, ethical premises.

**Mode of delivery:**

Web-based teaching

**Learning activities and teaching methods:**

Preliminary assignment in the beginning of the course

Online learning and completion of assignments in a ubiquitous learning environment 135 h; includes lectures on different themes along with independent and collaborative learning in the online learning environment, self- and peer assessment.

**Target group:**

Nursing Science, Health Sciences teacher, and Health Management students

**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.) 2018. 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/).  
 Ruusuvaori ym. (2017). Haastattelun analyysi. Vastapaino.  
 National and international scientific articles.

**Assessment methods and criteria:**

Completion of the course requires active participation in independent and collaborative online learning and successful completion of the required learning assignments. Continuous self-, peer, and teacher assessment will be used during the course. There will be a preliminary assignment at the beginning of the course.

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

**Grading:**

Pass / fail

**Person responsible:**

Nursing Science and Health Management university lecturers

**353306S: Information Literacy and Data Analysis, 5 op**

**Voimassaolo:** 01.08.2019 -

**Opiskelumuoto:** Advanced Studies

**Laji:** Course

**Vastuuyksikkö:** Health Sciences

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

**Opintokohteen kielet:** Finnish

**Leikkaavuudet:**

**ECTS Credits:**

5 ECTS cr

**Language of instruction:**

Finnish

**Timing:**

1st year spring term, 4th period

**Learning outcomes:**

The student is familiar with the research process and with the characteristics of scientific information including an ability to obtain and process scientific information, and to report and apply the results especially in the health sciences.

The student knows the role of scientific publications, can use and evaluate information sources critically. The student will be able to search research articles using basic literature retrieval methods and to use bibliographic databases available at the Medical Faculty.

The student knows basic principles in publication process, research ethics and good scientific practice. The student is familiar with the basic research studies. The student is familiar with requirements for high quality reporting of research findings. Further, the student is able to analyze data with basic statistical methods, use basic statistical significance tests and inference methods, and evaluate critically scientific research reports.

**Contents:**

Scientific information:

Principles of scientific research, ethics in research, research methods in the main disciplines (clinical medicine, epidemiology, biomedicine and health sciences).

Scientific communication:

Scientific journals, research articles, critical evaluation of research findings, ethics in scientific publication and bibliometrics.

Data analysis:

Aims and phases of statistical research, planning statistical research, obtaining data, variable distributions (frequencies, graphs and statistics), basics in statistical inference and methods (estimates, significance tests and confidence limits), basic methods in comparing groups and estimating associations between variables, specific methods applied in medical research. Critical reading of published research articles.

**Mode of delivery:**

Blended teaching

**Learning activities and teaching methods:**

Lectures, small group lessons, assignments and exam.

**Target group:**

Master students in health sciences

**Recommended optional programme components:**

352252S Methods of Statistical Analysis in Health Sciences

**Recommended or required reading:**

Material in lessons and small group lessons.

**Assessment methods and criteria:**

Regular and active participation in lectures, small group lessons, readiness tests and completion of practical projects and exams.

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

**Grading:**

1-5 / fail

**Person responsible:**

Pentti Nieminen

**353307S: Planning and Conducting Scientific Research, 5 op****Voimassaolo:** 01.08.2019 -**Opiskelumuoto:** Advanced Studies**Laji:** Course**Vastuuyksikkö:** Health Sciences**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Outi Kanste, Heidi Siira**Opintokohteen kielet:** Finnish**Leikkaavuudet:**

ay353307S Planning and Conducting Scientific Research (OPEN UNI) 5.0 op

**ECTS Credits:**

5 ECTS cr

**Language of instruction:**

Finnish

**Timing:**

1st spring term, 3rd period

**Learning outcomes:**

Upon completion of the course the student will be able to:

- critically justify choice of a good research topic, define key concepts and analyse the topic in relation to current scientific and societal discussions
- evaluate approaches in research related to the student's own research topic and choose appropriate methods to use according to the research topic
- develop a research plan
- apply and justify the methodological solutions made at different stages of research and justify reliability during the different stages of the research process
- evaluate key ethical issues related to conducting research
- clearly and creatively present his/her research plan and respond to questions received regarding the thesis evaluate the research topics and plans of other students participating in the course and
- present constructive questions and give feedback to other students on their research plans
- utilise digital solutions in learning.
- The student will achieve the ability to conduct their Master's thesis.

While deciding upon a specific research topic the student will be given the opportunity to choose from topics related to the ongoing research projects of the research unit.

**Contents:**

Project info: The ongoing projects of the research unit.

Master's thesis topic is chosen -&gt; Idea paper is created (+ named thesis supervisor) -&gt; topic and methods are specified.

Planning a questionnaire.

Basic statistical analysis and tests.

Meta-analysis.

Planning a systematic review.

Planning qualitative data collection.

Concept analysis, thematic analysis.

Textual analysis, discourse analysis, narrative analysis.

Content analysis.

Idea paper, supervision agreement.

Development of a Master's thesis research plan. Planning the different stages of the research process, familiarisation with concepts and literature related to own research topic, evaluation of reliability, research and researcher ethics.

**Mode of delivery:**

Blended teaching

**Learning activities and teaching methods:**

Independent and collaborative learning in the online learning environment and development of a research plan 105 h (Ubiquitous learning environment), lectures on different themes 20 h, group guidance/supervision (online/ contact teaching) 10 h.

**Target group:**

Nursing Science, Health Sciences teacher, and Health Management students

**Prerequisites and co-requisites:**

353316S Research Methods in Nursing Science and Health Management Science 5 ECTS cr

**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.) 2018. The sage Handbook of Qualitative Research. 4th ed. Thousand Oaks, CA: SAGE. (where applicable, at least sections III /Strategies of Inquiry/ and IV /Methods of Collecting and Analyzing Empirical Materials/) along with articles on research methodology

national and international literature relevant to the research plan and appropriate scientific articles.

**Assessment methods and criteria:**

Active participation in online learning, development of a research plan, self- and peer assessment, teacher assessment. The research plan is evaluated numerically.

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

**Grading:**

1-5 / fail

**Person responsible:**

Nursing Science and Health Management university lecturers

**Working life cooperation:**

The student is able to conduct the working life-oriented thesis, which supports development of the student's personal expertise.

**Other information:**

The research plan is developed in collaboration with the thesis supervisor – the thesis supervisor will decide on whether or not the research plan is accepted and this is not associated with completion of the course.

**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

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

**Target group:**

From 2019 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:**

Accepted learning assignments and participation in group exercises.

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

**Grading:**

Pass / fail

**Person responsible:**

Associate professor Pentti Nieminen