## **Opasraportti**

## Open University - Health and welfare (2019 - 2020)

# Tutkintorakenteisiin kuulumattomat opintokokonaisuudet ja - jaksot

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ay041201A: Basics in eHealth (OPEN UNI), 5 op
ay353401P: Evidence-based rehabilitation (OPEN UNI), 5 op
ay040404A: Health technology and rehabilitation (OPEN UNI), 5 op
ayA551101: Preliminary Studies of Health Sciences (OPEN UNI), 25 op
   Compulsory
      ay351203P: Introduction to Health Sciences (OPEN UNI), 5 op
      ay351204P: Foundations of Philosophy and Research Methods in Health Sciences (OPEN UNI), 5 op
      ay351207P: Foundations of Health Care Legislation (OPEN UNI), 5 op
      ay351206P: Health Care Systems in Finland and Inter-professional Networking (OPEN UNI), 5 op
      ay351205P: Foundations of Healath Care Education (OPEN UNI), 5 op
ayA551102: Subject Studies in Health Sciences (OPEN UNI), 35 op
   Compulsory
      ay352114A: Bachelor Thesis, 6 op
      ay352253A: Research Methdos in Health Science, 5 op
      ay353234A: Health Management Science and Training in Expertise Development, 10 op
      ay353235A: Nursing Science and Training in Expertise Development, 10 op
      ay040024Y: Knowledge and research II, Literature retrieval (OPEN UNI), 4 op
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## Opintojaksojen kuvaukset

## Tutkintorakenteisiin kuulumattomien opintokokonaisuuksien ja -jaksojen kuvaukset

ay041201A: Basics in eHealth (OPEN UNI), 5 op

Voimassaolo: 01.08.2019 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: University of Oulu, Open University

Arvostelu: 1 - 5, pass, fail

Opetus suunnattu: University of Oulu, Open University

Opettajat: Jarmo Reponen
Opintokohteen kielet: English

Leikkaavuudet:

041201A Basics in eHealth 5.0 op

#### **ECTS Credits:**

5 ECTS

#### Language of instruction:

**English** 

#### Timing:

Spring term, 3rd period (weeks 2-10/6.1.-6.3.2020)

#### Learning outcomes:

Upon completion of the course:

The student can define central information and communication technology (ICT) terms and solutions in healthcare, and can list respective applications in healthcare services and training.

The student can evaluate the societal and economic significance of information and communication technology in healthcare

The student can understand the position of e-health and telemedicine solutions as a part of the national health care information system.

The student receives an initial view of future health ICT trends from clinical perspective and possibilities to contribute to these with his/her professional background.

#### Contents:

terms and concepts

- societal dimensions
- delivery of health services
- electronic patient records
- data transfer within the health care system
- data transfer between the health care professionals and the patients
- citizens providing their own health data, mHealth-solutions
- national healthcare information exchange in Finland
- remote consultations, examples like teleradiology, telepsychiatry, telerehabilitation
- economical and functional assessment
- remote education in health care
- future visions of health care information systems
- changing current topics in connected health like: Artificial Intelligence, knowledge based medicine, cybersecurity etc according to availability

#### Mode of delivery:

Web-based teaching

## Learning activities and teaching methods:

Web-based teaching. Language of instruction - English. Interactivity takes place in virtual learning environment. The course consists of videotaped lectures, power point presentations and links to other material available in the web. Performance of duties includes written tasks, exam, participating in moderated discussions on the grounds of the lectures.

Web lectures 15h / Web exam 40h / Written tasks 40h / Self-study and participation in web discussion 40h

## Target group:

Anyone who is interested in achieving a basic understanding of e-health, telemedicine and patient record systems in the present healthcare delivery system. The course gives additional knowledge to those already working in healthcare but is also targeted to those coming from industry and other areas of society interested in collaboration with digital health environments **Recommended or required reading:** 

All recommended or required reading is offered in the virtual learning environment or in linked web pages.

## Assessment methods and criteria:

Web tasks, contribution to moderated discussion, an written tasks and course exams and optional final exam. Read more about assessment criteria at the University of Oulu webpage.

## **Grading:**

The course utilizes a numerical grading scale 0 - 5. In the numerical scale zero stands for a fail.

#### Person responsible:

Professor Jarmo Reponen

Course teacher Nina Keränen, MD, MSc

Course teacher Anna Maijala MSc

#### Other information:

The maximum number of students of the Open university is twenty (20) in order of registration. The course is suitable for anyone, who is interested in achieving a basic understanding of e-health, telemedicine and patient record systems in the present healthcare delivery system. The course also gives additional knowledge to those

already working in healthcare and is also targeted to those coming from industry and other areas of society interested in collaboration with digital health environments.

## ay353401P: Evidence-based rehabilitation (OPEN UNI), 5 op

Voimassaolo: 01.08.2019 - Opiskelumuoto: Basic Studies

Laji: Course

Vastuuyksikkö: University of Oulu, Open University

Arvostelu: 1 - 5, pass, fail

Opetus suunnattu: University of Oulu, Open University

Opettajat: Pirjo Kaakinen
Opintokohteen kielet: Finnish

Leikkaavuudet:

353401P Evidence-based rehabilitation 5.0 op

#### **ECTS Credits:**

5 ECTS cr

#### Language of instruction:

Finnish **Timing:**spring term

#### Learning outcomes:

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

Describe the concepts, principles and practices of evidence-based rehabilitation

Search for and choose research evidence from the most relevant rehabilitation databases

Critically evaluate the reliability of research evidence and its suitability in rehabilitation practice

Utilize research evidence in practical rehabilitation work, management and/or in developmental work

#### **Contents:**

Rehabilitation as part of the model of evidence based healthcare

Different study designs and the strength of evidence in rehabilitation

Evaluation of research quality and the levels of evidence

Applying rehabilitation research evidence in rehabilitation practice

## Mode of delivery:

Web-based learning

## Recommended or required reading:

Hoitosuositustyöryhmien käsikirja. 2016. Helsinki: Suomalainen Lääkäriseura Duodecim. (where applicable). Pohjalainen, T. 2005. Kuntoutuksen vaikuttavuus – mitä se tarkoittaa ja onko näyttöä? Suomen Lääkärilehti 60, 3399-3405.

Malmivaara, A. 2015. Benchmarking controlled trial – a novel concept covering all observational effectiveness studies. Annals of Medicine, 47: 332 – 340. <a href="mailto:target=\_blank>https://www.ncbi.nlm.nih.gov/pmc/articles/pMC4673508/">target=\_blank>https://www.ncbi.nlm.nih.gov/pmc/articles/pMC4673508/</a>

Students will be informed of other material in the beginning of the course.

## **Grading:**

Pass / fail

## Person responsible:

University teacher Heidi Siira

## Other information:

Course is organized by the Summer University of Central Ostrobothnia. For detailed information, for example, about registration and price, please, contact Summer University's Educational Designer Anita Salmela anita. salmela(at)kpkesayliopisto.fi.

## ay040404A: Health technology and rehabilitation (OPEN UNI), 5 op

Voimassaolo: 01.08.2012 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: University of Oulu, Open University

Arvostelu: 1 - 5, pass, fail

Opetus suunnattu: University of Oulu, Open University

Opintokohteen kielet: Finnish

Leikkaavuudet:

040404A Health technology and rehabilitation 5.0 op

#### **ECTS Credits:**

5 ECTS cr

#### Language of instruction:

Finnish, but the course can also be completed in English.

#### Learning outcomes:

Upon completion of the course the student will be able to

- 1) assess the changes in functional ability due to aging, illnesses, traumas, handicap and impairment
- 2) assess the changes in society affecting to the need for development the health technology in rehabilitation
- 3) assess the assistive devices, environmental control, technology devices possibilities promoting functional ability and accessibility according the ICF-framework.
- 4) describe the acquisition process of assistive devices and explain its connection to rehabilitation process and client's functional ability
- 5) design the health technology device or service using the evidence-based evaluation

#### Contents:

- functional ability and ICF-framework
- current society needs for rehabilitation and health technology
- assistive devices, environmental control devices, health technology services and devices, accessibility
- the acquisition process of assistive technology, the rehabilitation process
- the effectiveness and usability of health technology devices and services

#### Mode of delivery:

web-based teaching

#### **Grading:**

1-5 / failed

## Other information:

Primarily the language of instruction is Finnish, but the course can also be completed in English. For more information contact the organizing Summer University <a href="http://www.pohjois-pohjanmaankesayliopisto.fi/en/contact\_us/">http://www.pohjois-pohjanmaankesayliopisto.fi/en/contact\_us/</a> or teacher responsible.

## ayA551101: Preliminary Studies of Health Sciences (OPEN UNI), 25 op

Voimassaolo: 01.08.2014 - Opiskelumuoto: Basic Studies

Laji: Study module

Vastuuyksikkö: University of Oulu, Open University

Arvostelu: 1 - 5, pass, fail

Opetus suunnattu: University of Oulu, Open University

Opintokohteen kielet: Finnish

Leikkaavuudet:

A551101 Preliminary Studies of Health Sciences 25.0 op

Ei opintojaksokuvauksia.

Compulsory

## ay351203P: Introduction to Health Sciences (OPEN UNI), 5 op

Voimassaolo: 01.08.2015 - Opiskelumuoto: Basic Studies

Laji: Course

Vastuuyksikkö: University of Oulu, Open University

Arvostelu: 1 - 5, pass, fail

Opetus suunnattu: University of Oulu, Open University

Opintokohteen kielet: Finnish

Leikkaavuudet:

351203P Introduction to Health Sciences 5.0 op

#### **ECTS Credits:**

5 ECTS cr

## Language of instruction:

Finnish

#### Learning outcomes:

The student is able to use the online learning environment and study independently. The student is able to define concept of science and field of sciences. The student is able to define and explain the position of health sciences in the field of sciences. The student is capable of identifying current national and international issues of health sciences from perspective of health management science, nursing science and teacher education in health science.

#### Contents:

On-line learning environment. Field of sciences and the position of health sciences in it. Current issues of health sciences.

## Learning activities and teaching methods:

Tutored studying in on-line learning environment.

#### **Grading:**

Pass / fail

## ay351204P: Foundations of Philosophy and Research Methods in Health Sciences (OPEN UNI), 5 op

Voimassaolo: 01.08.2015 - Opiskelumuoto: Basic Studies

Laji: Course

Vastuuyksikkö: University of Oulu, Open University

Arvostelu: 1 - 5, pass, fail

Opetus suunnattu: University of Oulu, Open University

Opintokohteen kielet: Finnish

Leikkaavuudet:

351204P Foundations of Philosophy and Research Methods in Health Sciences 5.0 op

## **ECTS Credits:**

5 ECTS cr

## Language of instruction:

Finnish

#### Learning outcomes:

The student is able to

- define the philosophy, ethics and values of health care services.
- identify and define the norms and ethical principles, which are related to status of the client and are guiding the operations in health care
- recognize the most central ethical problems in health care, compare the ethical norms and regulations revealed in health care and patient care and related to different professional and work cultures.
- define Evidence Based Practice
- identify different stages of a research process
- define special characteristics of qualitative and quantitative research.
- recognize the main ethical principles of research in health sciences
- choose references relevant to one's research
- apply basics of scientific writing in one's own work.

#### Contents:

Ethical principles and professional ethics in health care, discussion of ethical questions from different perspectives and the effect of culture in health care. Evidence-based practice. Special characteristics of qualitative and quantitative research. Stages of a research process. Basics of scientific writing and referencing.

## Learning activities and teaching methods:

Supervised studying in on-line learning environment.

#### **Grading:**

Pass / fail

## ay351207P: Foundations of Health Care Legislation (OPEN UNI), 5 op

Voimassaolo: 01.08.2015 - Opiskelumuoto: Basic Studies

Laji: Course

Vastuuyksikkö: University of Oulu, Open University

Arvostelu: 1 - 5, pass, fail

Opetus suunnattu: University of Oulu, Open University

Opintokohteen kielet: Finnish

Leikkaavuudet:

351207P Foundations of Health Care Legislation 5.0 op

#### **ECTS Credits:**

5 ECTS cr

## Language of instruction:

Finnish

#### Learning outcomes:

The student is able to define principals of Finnish health care legislation. The student is able to describe and critically evaluate the foundations of health policy and health care management.

#### Contents:

Legislation in health care (promotion of health, social and health services, staff of social and health care services, equality, health care administration). Health policy. Basics of health care management.

## Learning activities and teaching methods:

Tutored studying in on-line learning environment.

#### **Grading:**

Pass / fail

## ay351206P: Health Care Systems in Finland and Inter-professional Networking (OPEN UNI), 5 op

Voimassaolo: 01.08.2015 - Opiskelumuoto: Basic Studies

Laji: Course

Vastuuyksikkö: University of Oulu, Open University

Arvostelu: 1 - 5, pass, fail

Opetus suunnattu: University of Oulu, Open University

Opintokohteen kielet: Finnish

Leikkaavuudet:

351206P Health Care Systems in Finland and Inter-professional Networking 5.0 op

#### **ECTS Credits:**

5 ECTS cr

## Language of instruction:

#### Finnish

#### Learning outcomes:

The student is able to define principles of the Finnish health care system and compare it to public health programs. The student is able to identify the relevance of integration in social and health care services. The student is able to identify main functions and forms of inter-professional networking in health care. The student is able to deepen one's knowledge and apply it in learning assignments. The student is able to plan an inter-professional health promotion program and justify it ethically, scientifically and from a customer's health perspective.

#### Contents:

Finnish social and health care services, social and health care organizations. Integration in social and health care services. Planning of an inter-professional health promotion programme. Inter-professional co-operation and support for the customer.

## Learning activities and teaching methods:

Tutored studying in on-line learning environment.

#### **Grading:**

Pass / fail

## ay351205P: Foundations of Healath Care Education (OPEN UNI), 5 op

Voimassaolo: 01.08.2015 - Opiskelumuoto: Basic Studies

Laji: Course

Vastuuyksikkö: University of Oulu, Open University

Arvostelu: 1 - 5, pass, fail

Opetus suunnattu: University of Oulu, Open University

Opintokohteen kielet: Finnish

Leikkaavuudet:

351205P Foundations of Health Care Education 5.0 op

## **ECTS Credits:**

5 ECTS cr

## Language of instruction:

Finnish

#### Learning outcomes:

The student is able to describe general principles of Finnish social and healthcare education system (ISCED-classification) and main features of the programmes of the Finnish National Board of Education. The student is able to define main goals and strategies, to identify international collaboration and partners of the Finnish Ministry of Education and Culture. The student is able to structure gained knowledge in learning diary and in assessment of one's learning.

#### Contents:

Social and health care education system. Objectives, goals and different education and training policies of Finnish education/education system. Legislation of Finnish higher education. Internationalization of Finnish higher education institutions.

## Learning activities and teaching methods:

Tutored studying in on-line learning environment.

#### **Grading:**

Pass / fail

## ayA551102: Subject Studies in Health Sciences (OPEN UNI), 35 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Study module

Vastuuyksikkö: University of Oulu, Open University

Arvostelu: 1 - 5, pass, fail

Opetus suunnattu: University of Oulu, Open University

Opintokohteen kielet: Finnish

Leikkaavuudet:

A551102 Subject Studies of Health Sciences 35.0 op

Ei opintojaksokuvauksia.

Compulsory

ay352114A: Bachelor Thesis, 6 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: University of Oulu, Open University

Arvostelu: 1 - 5, pass, fail

Opetus suunnattu: University of Oulu, Open University

Opintokohteen kielet: Finnish

Leikkaavuudet:

352114A Bachelor thesis 6.0 op

#### **ECTS Credits:**

6 ECTS cr

#### Language of instruction:

Finnish

#### Learning outcomes:

Upon completion of the course the student

is able to produce a Bachelor thesis based on scientific literature and/or empirical data following principles of scientific writing and research and demonstrating one's skills in scientific communication.

knows how to use the most important reference databases and basic principles of information retrieval in health sciences, and has learned to evaluate retrieved results and sources.

knows how to use reference management program

is able to explain and discuss one's Bachelor thesis and to produce a scientific presentation or/and poster on the basis of it. The student can choose a topic for her/his Bachelor thesis which enables practical collaboration with external organization, company (e.g. the thesis can be customized to suit client's needs). However, the topic has to be in line with the research projects of the research unit.

## Contents:

Planning, implementation, evaluation and presentation of a research process. Writing of a Bachelor thesis based on scientific literature and/or empirical data in accordance with scientific principles. The student prepares the Bachelor thesis with a topic corresponding to her/his major subject.

## Learning activities and teaching methods:

Group tutoring and seminar

#### Prerequisites and co-requisites:

352253A Research Methods in Health Sciences 5 ECTS cr

## Recommended optional programme components:

040024Y Knowledge and Research II, Literature Retrieval 4 ECTS cr

#### **Grading:**

Pass / fail

ay352253A: Research Methdos in Health Science, 5 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: University of Oulu, Open University

Arvostelu: 1 - 5, pass, fail

Opetus suunnattu: University of Oulu, Open University

Opintokohteen kielet: Finnish

Leikkaavuudet:

352253A Research Methdos in Health Science 5.0 op

#### **ECTS Credits:**

5 ECTS cr

#### Language of instruction:

Finnish

#### Learning outcomes:

The student is able to name and describe the characteristics of scientific research. The student is able to recognize and evaluate the requirements for good scientific writing. The student is able to describe the steps of scientific research process. The student is able to formulate research aims, objectives and research questions. The student is able to describe valid methods for data collection and data analysis and for selection of research sample/informants. The student is able to describe and evaluate basic ethical issues related to research and researchers. The student is able to evaluate reliability and validity of qualitative and quantitative studies, and is able to apply information and communication technology in his/her research methodology studies.

#### Contents:

Qualitative and quantitative research: methods of collecting and analyzing data, assessment of reliability, ethical principles, writing of a research plan and a research report, scientific writing.

## Learning activities and teaching methods:

Guided online-studies

#### **Grading:**

1-5 / fail

## ay353234A: Health Management Science and Training in Expertise Development, 10 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: University of Oulu, Open University

Arvostelu: 1 - 5, pass, fail

Opetus suunnattu: University of Oulu, Open University

Opintokohteen kielet: Finnish

Leikkaavuudet:

353234A Health Management Science and Training in Expertise Development 10.0 op

#### **ECTS Credits:**

10 ECTS cr

## Language of instruction:

Finnish

## Learning outcomes:

The student

knows history of health management science and is able to name focal research areas and theoretical basics in a manner enabling discussions about health care administration and management phenomena in connection with visits to companies/organizations.

is able to produce a portfolio with working life relevance, which supports development of expertise and long-life learning. In portfolio, the student applies and analyses central concepts, theories and models of health management science using her/his earlier knowledge and skills.

is able to present portfolio with working life relevance interactively using creatively information and communication technology

is able to report development of one's expertise from the perspective of one's earlier education and working life skills. In addition, the student is able to discuss in one's tutorial group requirements, challenges and possibilities of working life cooperation in the fields of health care, education and management.

#### 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.

## Learning activities and teaching methods:

Blended teaching using information and communication technology

#### Recommended optional programme components:

Possibly joint teaching with the course ay353235A Nursing science and training in expertise development.

### **Grading:**

1-5 / fail

## ay353235A: Nursing Science and Training in Expertise Development, 10 op

**Opiskelumuoto:** Intermediate Studies

Laji: Course

Vastuuyksikkö: University of Oulu, Open University

Arvostelu: 1 - 5, pass, fail

Opetus suunnattu: University of Oulu, Open University

Opintokohteen kielet: Finnish

Leikkaavuudet:

353235A Nursing Science and Training in Expertise Development 10.0 op

#### **ECTS Credits:**

10 ECTS cr

## Language of instruction:

Finnish

## Learning outcomes:

The student is able to

describe development, research approaches, focuses and research subjects in nursing science. The student is able to apply evidence-based practice and discuss the importance of nursing science in connection with visits to companies/organizations.

produce a portfolio with working life relevance, which supports development of expertise and long-life learning. In portfolio, the student applies and analyses central concepts, theories and models of nursing science using her/his earlier knowledge and skills.

introduce interactively portfolio with working life relevance using creatively information and communication technology

report development of one's expertise from the perspective of one's earlier education and working life skills. In addition, the student is able to discuss in groups requirements, challenges and possibilities of working life cooperation from the nursing science's point of view.

#### Contents:

Development trends, focuses and research subjects in nursing science. The importance of nursing science in development of expertise and evidence-based practice of health care.

## Learning activities and teaching methods:

Blended teaching using information and communication technology

### Recommended optional programme components:

Possibly joint teaching with the course ay353234A Health management science and training in expertise development.

#### **Grading:**

## ay040024Y: Knowledge and research II, Literature retrieval (OPEN UNI), 4 op

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: University of Oulu, Open University

Arvostelu: 1 - 5, pass, fail

Opetus suunnattu: University of Oulu, Open University

Opintokohteen kielet: Finnish

Leikkaavuudet:

040024Y Knowledge and research II, Literature retrieval 4.0 op

#### **ECTS Credits:**

4 ECTS cr

## Language of instruction:

Finnish

#### Learning outcomes:

Upon completion of the course the student is familiar with the research process and with the characteristics of scientific information. The student acknowledges significance of scientific publications and is able to evaluate and use critically information sources. The student is able to use the key reference databases and basics of literature retrieval in medical, dental and health sciences and has learned to evaluate results of the retrieval and sources. The student is able to make good use of reference management software. The student is familiar with basic principles of research ethics and good scientific practice. The student knows the phases and practices of publishing process.

The student is familiar with the main characteristics and analysis of research frames. The student is able to evaluate the role of different kind of illusions and coincidences in research results. The student has acquired preliminary knowledge of retrieval and statistical processing of data. The student is able to evaluate critically scientific publications in which statistical methods are applied. The student is familiar with principles of sound reporting of the research results.

#### Contents:

Scientific information:

General characteristics of scientific research, significance of scientific information, ethics in research, research methods from different points of view (clinical medicine, epidemiology, biomedicine and health sciences).

Reading of a scientific article:

Scientific journals and phases of publishing process, bibliometric, ethics of scientific communication, approaches and questions of different fields of medicine and health sciences, structure of a scientific article, research frames, possible illusions in research, statistical analysis of data and reporting the results, statistical and clinical significance, systematic reviews and meta-analyses.

Literature retrieval:

Library information services, medical and dental publications, scientific online journals, Medline, Medic, CINAHL, Scopus, Web of Science, Cochrane, electronic books, reference management software. Special characteristics in medical research:

Ethical guidelines, regulations in clinical drug research, use of laboratory animals in scientific research, research groups.

## Learning activities and teaching methods:

Blended teaching

## **Grading:**

1-5 / fail