

Opasraportti

FMed - Medicine (2016 - 2017)

CURRICULUM FOR THE DEGREE PROGRAMME IN MEDICINE 2016-17

Objective of the education programme

The objective of the degree programme is that a student graduating as a doctor has the knowledge, skills and psychosocial capabilities for successfully working in healthcare roles as an expert, developer, team member and leader. Other objectives include ensuring that, after graduation, the students have adequate capabilities for engaging in research and further studies as well as the ability and motivation for lifelong learning. The instruction is based on renewing knowledge, and it has strong links with scientific research. The programme contents have been derived from the learning outcomes, and they are undergoing constant evaluation and development.

After completing the Licentiate of Medicine degree programme, the student will have attained the following learning outcomes:

A doctor as a professional

- possesses and understands key professional values, including prioritising the patient's best interest, integrity, respect and confidentiality
- understands and follows the principles of professional ethics, including respect for the autonomy of the individual, doing good and doing no harm
- understands and delivers treatment in keeping with care guidelines and approved methods, including informed consent to treatment and informing the patient of the limitations of treatment
- knows how to work as a member of a healthcare team
- appreciates the importance of lifelong learning

Scientific knowledge in a doctor's profession

- acquires and possesses key clinical and scientific knowledge, skills and attitudes
- understands scientific methods and knows how to apply them to patient work and lifelong learning
- is able to serve as an expert and a developer of his or her field

Interaction in a doctor's profession

- is able to communicate productively with patients and their family members, behaves with consideration and sympathy, and knows how to terminate communication with a patient if necessary
- in interaction and treatment, is able to take into account the religious and cultural background and social circumstances of patients and their families
- knows how to communicate information orally and in writing to healthcare professionals and assume the role of a teacher where necessary

Clinical problem-solving in a doctor's profession

- knows how to deliver individual treatment that takes the patient's personal needs and preferences into account as well as prepare treatment plans for acute and chronic illnesses for patients of all ages
- knows how to make diagnoses and prepare treatment plans analytically and based on research data
- is familiar with the structure and operation of the healthcare system and appreciates the coordination of healthcare and its stakeholders that secures the continuity, safety and reliability of treatment

A doctor's role in supporting patients and the community

- promotes comprehensive and high-quality treatment of patients and good national health regardless of the patients' culture, language, ethnic background or social status
- understands the importance of health promotion and a doctor's responsibility from the perspective of entire society as well as participates in projects that improve the population's well-being and promotes the use of healthcare service organisations and social resources with the aim of increasing well-being

A doctor as a human being

- recognises his or her own motives, values and restrictions and obtains proposals from others to improve his or her activities
- recognises his or her reactions in difficult situations and strives to find means for staying in control in upsetting situations
- understands the impacts of these reactions on his or her life and work and strives to find an appropriate work-life balance
- is able to process medical errors and learn from them

The degree of Licentiate of Medicine, 6 years

Level of qualification

The degree programme in Medicine leads to the degree of Licentiate of Medicine, which Corresponds M.D. degree in Angloamerican countries.

ECTS Credits

The minimum extent of the Licentiate of Medicine degree is 360 credits.

Language of instruction

The teaching is given in Finnish language.

Admission requirements

The admission requirements for the degree programme in Medicine comprise the Matriculation Examination Certificate or the upper secondary vocational education and an entrance examination. Equivalent foreign education also gives general eligibility for degree programme in medicine. Foreign applicant's admission is based exclusively on the results of the entrance examination.

All applicants to the degree programme in Medicine have to attend an entrance examination, which is held in Finnish or in Swedish and is based on Finnish or Swedish literature. If a foreign applicant wants to answer in Swedish to the entrance examination, she/he has to demonstrate language proficiency in Finnish. The teaching is given in Finnish language.

Arrangements for recognition of prior learning

Recognizing official, unofficial or informal learning: [AHOT](#), [University of Oulu Education Regulations](#)

Profile of the programme

The degree programme in Medicine leads to the degree of Licentiate of Medicine, which Corresponds M.D. degree in Angloamerican countries. The instruction in the degree programme in medicine emphasizes the regular updating of

knowledge and has a strong connection to scientific research. The contents of instruction are fully in line with the intended learning outcomes, and they are under constant evaluation and development. Since 2011, instruction in the degree programme in Medicine at the University of Oulu has been organised according to a new curriculum.

Graduates of the degree programme in medicine become experts in demanding tasks on both national and international level. Studying in an academic community of diverse scientific fields and high standards is challenging and rewarding. Our programme offers graduates a range of career opportunities on different professional paths as well as in research.

The training has strong connection to diverse and cross-disciplinary scientific research at Faculty of Medicine. For students, it is possible to begin scientific research work in research groups before graduation.

Course structure diagram and required for the degree courses

The minimum extent of the Licentiate of Medicine degree is 360 credits. One Finnish credit equals to one ECTS credit. The average input of 1600 working hours needed for studies of one academic year is equivalent to 60 credits. Medical studies are pre-scheduled and the training is organized in such a manner that with full-time attendance the degree can be taken in six years.

The degree programme consists of basic, intermediate and advanced studies, language studies and compulsory practical training. Studies are carried out as contact teaching. Medical studies are pre-scheduled and organized according the order presented in curriculum. Studies have to be accomplished according the pre-scheduled order. Exemptions can be made only based on the accepted personal study plan.

The preclinical stage lasts for two years (Semesters 1-4) and mostly consists of general studies. The completion of clinical studies takes four years (Semesters 5-12). During this phase students focus on the occurrence, onset, diagnostics, treatment and prevention of various diseases. Bed-side teaching is part of students' daily routine. Some clinical studies are integrated in preclinical stage of studies.

The degree structure of each semester (2016)

1. Semester (C1 and C2)

| | |
|---------|---|
| 040201A | Anatomy 14 ECTS |
| 040201A | Medical cell and developmental biology 7 ECTS |
| 041116Y | Basics of Public health 3 ECTS |
| 041117Y | Introduction to practice of general medicine and dentist 2 ECTS |
| 040103A | Medical Biochemistry and Molecular Biology 15 ECTS |

Professionalism in Medical Education (PME) – tract 4 ECTS, including:

| | |
|---------|--|
| 040013Y | Introduction to Medical Studies 2 ECTS |
| 040016Y | Basic Life Support 0.5 ECTS |
| 040018Y | Health Care Ethics 1st period 1.5 ECTS |

Environment, Lifestyle and Health Studies (ELH) – tract 2 ECTS, including:

| | |
|---------|---------------------------------|
| 040028Y | ELH – Studies 1st period 2 ECTS |
|---------|---------------------------------|

Evidence Based Medicine (EBM) – tract 2,5 ECTS, including:

902006Y Reading for Academic Purposes 1.5 ECTS

040031Y EBM – Studies 1st period 1 ECTS

Knowledge and Research 6,5 ETCS, including:

040021Y Knowledge and Research, Tools 1 ECTS

040022Y Knowledge and Research, Written assignment 1.5 ECTS

040024Y Knowledge and Research, Literature retrieval 4 ECTS

041010Y Clinical Genomics 2 ECTS

Total 58 ECTS

2. Semester (C3 and C4)

040106A Pharmacology and toxicology 10 ECTS

040112A Physiology 15 ECTS

040119A Microbiology and immunology 10 ECTS

040108A General Pathology 5 ECTS

081803A Radiation and its safe use 1.5 ECTS

901036Y Second Official Language (Swedish), Written Skills 1 ECTS

901037Y Second Official Language (Swedish), Oral Skills 2 ECTS

Professionalism in Medical Education (PME) – tract 8 ECTS, including

040117Y Interviewing and examining patients 4 ECTS

040104A Psychology 4 ECTS

Environment, Lifestyle and Health Studies (ELH) – tract 1 ECTS, including:

040119Y Environmental health care 1 ECTS

Evidence Based Medicine (EBM) – tract 2 ECTS, including:

040105Y Basic Epidemiology 1.5 ECTS

040031Y EBM – Studies 1st period 1 ECTS

Knowledge and Research 3.5 ECTS, including:

040025Y Knowledge and Research, Lessons and written examination 1.5 ECTS

040026Y Knowledge and Research, Small group exercises 1 ECTS

040027Y Knowledge and Research, Practical Project 1 ECTS

Integrated Studies 1 ECTS, including:

040037Y Clinical Pathology 1 ECTS

Total 60 ESCT

3. Semester (C5 and C6)

080601A Anesthesiology I 4 ECTS

080222A Organ Pathology I 6 ECTS

080712A Surgery I 16 ECTS

040127A Clinical pharmacology and Prescriptions 1 ECTS

080633A Laboratory medicine 3 ECTS

080803A Radiology I 3 ECTS

080711A Internal Medicine I 16.5 ECTS

081421A Public Health 3rd period 1 ECTS

Integrated Studies 4 ECTS, including:

040038Y Clinical Anatomy 1 ECTS

040039Y Medical Biochemistry and Molecular Biology 1 ECTS

040040Y Clinical Physiology 2 ECTS

Professionalism in Medical Education (PME) – tract 1 ECTS, including:

040036Y PDM – Studies 1 ECTS

Evidence Based Medicine (EBM) – tract 0,5 ECTS, including:

040033Y EBM – Studies 3rd period 0.5 ECTS

080707S Practice 3 ECTS

Total 59.5 ECTS

4. Semester (C7 and C8)

080613A Anesthesiology II 3 ECTS

| | |
|---------|---------------------------------|
| 080223A | Organ Pathology II 2 ECTS |
| 080205A | Pulmonary diseases 3 ECTS |
| 080714A | Surgery II 8 ECTS |
| 080302A | Oto-Rhino-Laryngology 6 ECTS |
| 080304A | Neurosurgery 3 ECTS |
| 080301A | Neurology 6 ECTS |
| 080103A | Psychiatry 12 ECTS |
| 080716A | Internal Medicine II 4.5 ECTS |
| 080202A | Forensic Medicine 4 ECTS |
| 081422A | Public Health 4th period 1 ECTS |

Environment, Lifestyle and Health Studies (ELH) – tract 1 ECTS, including:

| | |
|---------|---------------------------------|
| 040029Y | ELH – Studies 4th period 1 ECTS |
|---------|---------------------------------|

Evidence Based Medicine (EBM) – tract 1.5 ECTS, including:

| | |
|---------|-----------------------------------|
| 902007Y | Scientific Communication 1.5 ECTS |
| 080707S | Practice 6 ECTS |

Total 61 ECTS

5. Semester (C9 and C10)

| | |
|------------|---|
| 080224A | Organ Pathology III 2 ECTS |
| 2080203A | Dermatology and venereology 5 ECTS |
| 040128A | Clinical Pharmacology and Pharmacological Cure 1 ECTS |
| 080503A | Child Psychiatry 3 ECTS |
| 080502A | Pediatrics 14 ECTS |
| 080505A | Clinical Genetics 2 ECTS |
| 080303A | Ophthalmology 4 ECTS |
| 080401A | Obstetrics and gynecology 10 ECTS |
| 081423A | Public Health 5th period 5 ECTS |
| 080705S-01 | Thesis, Study Plan 4 ECTS |
| 080510A-05 | OSCE-exam |

Professionalism in Medical Education (PME) – tract 1 ECTS, including:

040019Y Health Care Ethics 5th period 1 ECTS

Environment, Lifestyle and Health Studies (ELH) – tract 1 ECTS, including:

040030Y ELH – Studies 5th period 1 ECTS

Evidence Based Medicine (EBM) – tract 1 ECTS, including:

040034Y EBM – Studies 5th period 1 ECTS

080707S Practice 6 ECTS

Total 59 ECTS

6. Semester (C11 and C12)

080916A Physiathry and Rehabilitaion 5 ECTS

080914A Geriatrics 4 ECTS

040116A Public Health Science 5 ECTS

080204A Oncology 4 ECTS

080001Y Medical Rescue Work 4 ECTS

080813A Radiology II 2 ECTS

080410A Occupational Health 2 ECTS

081424A Public Health 6th period 8 ECTS

Professionalism in Medical Education (PME) – tract 3 ECTS, including:

040020Y Health Care Ethics 6th period 1 ECTS

040017Y Leadership in Health Care 2 ECTS

Evidence Based Medicine (EBM) – tract 0.5 ECTS, including:

040035Y EBM – Studies 6th period 0.5 ECTS

080707S Practice 9 ECTS

080705S-02 Thesis 16 ECTS

040300A Maturity Exam

Total 62.5 ECTS

DEGREE PROGRAMME IN MEDICINE (Government Decree on University Degrees 794/2004)

| 1. Semester | 2. Semester | 3. Semester | 4. Semester | 5. Semester | 6. Semester |
|--|---|--|--|--|---|
| C1-C2 | C3-C2 | C5-C6 | C7-C8 | C9-C10 | C11-C12 |
| <p>Anatomy 14 ECTS</p> <p>Medical cell and developmental biology 7 ECTS</p> <p>Basics of Public health 3 ECTS</p> <p>Introduction to practice of general medicine and dentist 2 ECTS</p> <p>Medical Biochemistry and Molecular Biology 15 ECTS</p> <p>Clinical Genomics 2 ECTS</p> | <p>Pharmacology and toxicology 10 ECTS</p> <p>Physiology 15 ECTS</p> <p>Microbiology and immunology 10 ECTS</p> <p>General Pathology 5 ECTS</p> <p>Radiation and its safe use 1.5 ECTS</p> <p>Second Official Language (Swedish), Written Skills 1 ECTS</p> <p>Second Official Language (Swedish), Oral Skills 2 ECTS</p> | <p>Anesthesiology I 4 ECTS</p> <p>Organ Pathology I 6 ECTS</p> <p>Surgery I 16 ECTS</p> <p>Clinical pharmacology and Prescriptions 1 ECTS</p> <p>Laboratory medicine 3 ECTS</p> <p>Radiology I 3 ECTS</p> <p>Internal Medicine I 16.5 ECTS</p> <p>Public Health 1 ECTS</p> | <p>Anesthesiology II 3 ECTS</p> <p>Organ Pathology II 2 ECTS</p> <p>Pulmonary diseases 3 ECTS</p> <p>Surgery II 8 ECTS</p> <p>Oto-Rhino-Laryngology 6 ECTS</p> <p>Neurosurgery 3 ECTS</p> <p>Neurology 6 ECTS</p> <p>Psychiatry 12 ECTS</p> <p>Internal Medicine II 4.5 ECTS</p> <p>Forensic Medicine 4 ECTS</p> <p>Public Health 1 ECTS</p> | <p>Organ Pathology III 2 ECTS</p> <p>Dermatology and venereology 5 ECTS</p> <p>Clinical Pharmacology and Pharmacological Cure 1 ECTS</p> <p>Child Psychiatry 3 ECTS</p> <p>Pediatrics 14 ECTS</p> <p>Clinical Genetics 2 ECTS</p> <p>Ophthalmology 4 ECTS</p> <p>Obstetrics and gynecology 10 ECTS</p> <p>Public Health 5 ECTS</p> <p>Thesis, Study Plan 4 ECTS</p> <p>OSCE-exam</p> | <p>Physiathry and Rehabilitaion 5 ECTS</p> <p>Geriatrics 4 ECTS</p> <p>Public Health Science 5 ECTS</p> <p>Oncology 4 ECTS</p> <p>Medical Rescue Work 4 ECTS</p> <p>Radiology II 2 ECTS</p> <p>Occupational Health 2 ECTS</p> <p>Public Health 8 ECTS</p> |
| | <p>Integrated Studies: Clinical Pathology 1 ECTS</p> | <p>Integrated Studies: Clinical Anatomy 1 ECTS</p> <p>Medical Biochemistry and Molecular Biology 1 ECTS</p> <p>Clinical Physiology 2 ECTS</p> | | | |

| | | | | | |
|---|--|--|---|---|---|
| Knowledge and Research 6.5 ECTS | Knowledge and Research 3.5 ECTS | | | | |
| Professionalism in Medical Education (PME) – tract: Introduction to Medical Studies 2 ECTS Basic Life Support 0.5 ECTS Health Care Ethics 1.5 ECTS | Professionalism in Medical Education (PME) – tract: Interviewing and examining patients 4 ECTS Psychology 4 ECTS | Professionalism in Medical Education (PME) – tract: PDM – Studies 1 ECTS | | Professionalism in Medical Education (PME) – tract: Health Care Ethics 1 ECTS | Professionalism in Medical Education (PME) – tract: Health Care Ethics 1 ECTS Leadership in Health Care 2 ECTS |
| Environment, Lifestyle and Health Studies (ELH) – tract: ELH – Studies 2 ECTS | Environment, Lifestyle and Health Studies (ELH) – tract: Environmental health care 1 ECTS | | Environment, Lifestyle and Health Studies (ELH) – tract: ELH – Studies 1 ECTS | Environment, Lifestyle and Health Studies (ELH) – tract: ELH – Studies 1 ECTS | |
| Evidence Based Medicine (EBM) – tract: Reading for Academic Purposes 1.5 ECTS EBM – Studies 1 ECTS | Evidence Based Medicine (EBM) – tract: Basic Epidemiology 1.5 ECTS EBM – Studies 1 ECTS | Evidence Based Medicine (EBM) – tract: EBM – Studies 0.5 ECTS | Evidence Based Medicine (EBM) – tract: Scientific Communication 1.5 ECTS | Evidence Based Medicine (EBM) – tract: EBM – Studies 1 ECTS | Evidence Based Medicine (EBM) – tract: EBM – Studies 0.5 ECTS |
| Thesis, Study Plan 4 ECTS and Thesis 16 ECTS | | | | Thesis, Study Plan 4 ECTS | Thesis and Maturity Exam 16 ECTS |
| Practice total 24 ECTS | | practice 3 ECTS | practice 6 ECTS | practice 6 ECTS | practice 9 ECTS |
| 58 ECTS | 60 ECTS | 59.5 ECTS | 61 ECTS | 59 ECTS | 62.5 ECTS |
| Tutkinnon kokonaislaajuus | 360 op | | | | |

Graduation requirements

The minimum extent of the Licentiate of Medicine degree is 360 ECTS credits. The degree programme consists of general, basic, intermediate and advanced studies, language studies and compulsory practical training. The thesis and a maturity test are included in the advanced studies of major. The total amount of compulsory practical training is 24 ECTS credits.

Separate provisions have been laid down for assessing the proficiency in Finnish and Swedish language required in accordance with the Government Decree on University Degrees (794/2004), <http://www.finlex.fi/en/laki/kaannokset/2004/en20040794.pdf>.

1. The student must demonstrate in studies included in education for a degree of Licentiate of Medicine or otherwise that he/she has attained:

(1) proficiency in Finnish and Swedish which is required of civil servants in bilingual public agencies and organizations under Section 6(1) of the Act on the Knowledge of Languages Required of Personnel in Public Bodies (424/2003) and which is necessary for their field; and

(2) skills in at least one foreign language needed to follow developments in the field and to operate in an international environment.

2. The provisions of subsection 1 do not concern a student who has been educated in a language other than Finnish or Swedish or a student who has been educated abroad. The language proficiency of such students shall be determined by the university.

3. For special reasons, the university may either totally or partially exempt a student from the requisite language skills referred to in subsection 1.

In order to gain a degree certificate the student has to supply an application to the faculty's office according to instructions given by the faculty.

Learning outcomes

The goal of the studies towards the degree of Licentiate of Medicine is to provide the students with such knowledge, skills and psycho-social abilities that will enable them, after graduation, to successfully function as experts, developers and team participants and leaders in hospitals as well as in primary health care. An additional goal is that a graduate will have the prerequisite skills for research work and post-graduate study as well as the ability and motivation for lifelong learning. The instruction, which emphasizes the regular updating of knowledge, has a strong connection to scientific research. The contents of instruction have been derived from the goals, and they are under constant evaluation and development.

The learning outcomes of the degree are based on the competences described in the publication of [The Tuning Project \(Medicine\)](#): Learning outcomes/competences for undergraduate medical education in Europe.

Modes of study

Medical studies are pre-scheduled and the training is organized in such a manner that with full-time attendance the degree can be taken in six years. Most of the courses are compulsory for all students. Some study modules, especially thesis in advanced studies, can be chosen according to the student's own interests.

Examination regulations, Assessment and Grading

Assessment is based on examinations, exercises, essays, field work, clinical work, reports or any other method determined pedagogically appropriate for the particular course. Additional information is given in study unit descriptions.

A numerical scale 0-5 in whole numbers or verbal grading Pass or Fail is used in assessing a completed course. When assessing theses, verbal grading hyväksytty (Approved) or hylätty (Rejected) is being used. In numerical scale zero stands for fail.

Qualification requirements and regulations

The degree provides doctor's eligibility. National Supervisory Authority for Welfare and Health (Valvira) grants, upon application, the right to practice as a licenced medical doctor. More information: http://www.valvira.fi/en/licensing/professional_practice_rights

Occupational profiles of graduates

The goal of the degree programme in medicine is to prepare students for a career as a physician as well as for professional and scientific post-graduate education. In addition to the traditional work as a physician, the training enables graduates to work in the fields of teaching and research as well as in other positions as an expert in the field of medicine.

Access to further studies

After completing the basic degree, students may apply for the post-graduate professional education that leads to a specialist degree and/or pursue the Doctor of Medicine degree as a scientific post-graduate degree.

The degree of a Doctor of Medical Science is a postgraduate degree in medicine. The doctorate may take 3 - 4 years full time study. An accepted thesis is required as well as theoretical studies.

The Specialist degree is a professional postgraduate degree. In Finland there are 49 specialist degree programmes. The specialist education in medicine takes 5 to 6 years after permission granted by the National Supervisory Authority for Welfare and Health (Sosiaali- ja terveystieteiden lupa- ja valvontavirasto, Valvira) to practice as a physician in Finland. It consists of theoretical lectures, working in hospitals and health centers and an examination.

Information about the post-graduate professional education:

<http://www oulu.fi/ltk/opiskelu/jatkokoulutus/ammattillinen> (in Finnish)

Information about the scientific post-graduate education:

<http://www oulu.fi/ltk/opiskelu/jatkokoulutus/tieteellinen> (in Finnish)

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Tutkintorakenteet

Licentiate of Medicine

Tutkintorakenteen tila: published

Lukuvuosi: 2016-17

Lukuvuoden alkamispäivämäärä: 01.08.2016

General studies (37 op)

040105Y: Basic Epidemiology, 1,5 op

040016Y: Basic life support, 0,5 op

040028Y: Environment, Lifestyle and Health Studies, 1st period, 2 op

040029Y: Environment, Lifestyle and Health Studies, 4th period, 1 op

040030Y: Environment, Lifestyle and Health Studies, 5th period, 1 op

040119Y: Environmental health care, 1 op

040031Y: Evidence Based Medicine-studies, 1st period, 1 op

040032Y: Evidence Based Medicine-studies, 2nd period, 0,5 op

040033Y: Evidence Based Medicine-studies, 3rd period, 0,5 op

040034Y: Evidence Based Medicine-studies, 5th period, 1 op

040035Y: Evidence Based Medicine-studies, 6th period, 0,5 op

040018Y: Health Care Ethics First period, 1,5 op

040019Y: Health Care Ethics Fifth period, 1 op

040020Y: Health Care Ethics Sixth period, 1 op

040117Y: Interviewing and examining patients, 4 op

compuls3

040117Y-01: General practice, 2 op

040117Y-02: Internal medicine, 2 op

040013Y: Introduction to Medical Studies, 2 op

compuls

040013Y-01: Introduction to the university studies, 1 op

040013Y-02: Introduction to Medical Studies, part 2, 1 op

040024Y: Knowledge and research II, Literature retrieval, 4 op

040025Y: Knowledge and research, Lessons and written examination, 1,5 op

040027Y: Knowledge and research, Practical project, 1 op

040026Y: Knowledge and research, Small group exercises, 1 op

040021Y: Knowledge and research, Tools, 0,5 - 1 op

040022Y: Knowledge and research, Written assignment, 1,5 op

040017Y: Leadership in Health Care, 2 op

040036Y: Professional Development in Medicine Studies, 3rd period, 1 op

040104A: Psychology, 4 - 4,5 op

compuls4

040104A-01: Psychology, obligatory studies, 1 op

040104A-02: Psychology, final exam, 2 op

040104A-03: Psychology, compulsory 2, 1 op

Language and Communication studies (6 op)

- 902006Y: Reading for Academic Purposes, 1,5 op
 902007Y: Scientific Communication, 1,5 op
 901037Y: Second Official Language (Swedish), Oral Skills, 2 op
 901036Y: Second Official Language (Swedish), Written Skills, 1 op

Basic studies (81 op)

- 040201A: Anatomy and medical cell and developmental biology, 21 - 22 op
compuls9
 040201A-01: Anatomy, examination in cell and developmental biology, 7 op
 040201A-02: Anatomy, examination in neuroanatomy, 4 op
 040201A-03: Anatomy, examinations in small group sessions, 6 op
 040201A-04: Final examination in anatomy, 4 op
 040201A-06: Anatomy, 0 op
- 041116Y: Basics of public health, 3 op
- 040108A: General Pathology, 3,5 - 5 op
compuls14
 040108A-01: General Pathology, obligatory studies, 2 - 2,5 op
 040108A-02: General Pathology, 0,5 op
 040108A-03: General Pathology, exam, 1 - 2 op
- 041117Y: Introduction to practice of general medicine and dentistry, 2 op
- 040103A: Medical Biochemistry and Molecular Biology, 14 - 15 op
compuls10
 040103A-01: Medical Biochemistry and Molecular Biology Intermediate exams 1, 3 op
 040103A-02: Medical Biochemistry and Molecular Biology Intermediate exams 2, 2 op
 040103A-03: Medical Biochemistry and Molecular Biology Intermediate exams 3, 3 op
 040103A-04: Medical Biochemistry and Molecular Biology Intermediate exams 4, 3 op
 040103A-05: Medical Biochemistry and Molecular Biology Final exams, 1 op
 040103A-06: Medical Biochemistry and Molecular Biology Laboratory works, 1,5 op
 040103A-07: Medical Biochemistry and Molecular Biology Theme day, 0,5 op
 040103A-08: Medical Biochemistry and Molecular Biology Panel discussion, 0,5 op
 040103A-09: Medical Biochemistry and Molecular Biology Patient, 0,5 op
- 040119A: Microbiology, 9,5 - 10 op
compuls13
 040119A-01: Microbiology:preliminary exam, 0,5 op
 040119A-02: Microbiology:laboratory works, 2 op
 040119A-04: Microbiology: final exam, 7,5 op
- 040106A: Pharmacology and toxicology, 10 op
compuls11
 040106A-01: Pharmacology and toxicology, tutorials, 2 op
 040106A-02: Pharmacology and toxicology, A web-based exam, 1 op
 040106A-03: Pharmacology and toxicology, written exam (part 1), 3 op
 040106A-04: Pharmacology and toxicology, written exam (part 2), 3 op
 040106A-05: Pharmacology and toxicology, final exam, 1 op
- 040112A: Physiology, 15 op
compuls12
 040112A-01: Physiology, small group teaching, 2,5 op
 040112A-011: Physiology, biophysics small group teaching, 0,5 op
 040112A-021: Physiology, practicals entry examination, 1 op
 040112A-02: Physiology, term paper, 2 op
 040112A-03: Physiology, mid-term examination, 3 op
 040112A-04: Physiology, final examination, 6 op

Intermediate and Advanced studies (192 op)

- 080601A: Anaesthesiology I, 3 - 4 op
compuls15
 080601A-04: Anaesthesiology, intubations, 2,5 op
 080601A-07: Anaesthesiology, Resuscitation and vital functions, 1 op
 080601A-08: Anaesthesiology, Optima CPR Exam, 0,5 op

- 080601A-09: Anaesthesiology final examination, 0 op
- 080613A: Anesthesiology II, 3 op
- Compulsory*
- 080613A-01: Small group classes, 0,5 op
- 080613A-02: Theme day, 2 op
- 080613A-03: Optima examination, 0,5 op
- 080613A-04: Anaesthesiology Examination, 1 op
- 080503A: Child psychiatry, 3 op
- compuls24*
- 080503A-01: Child psychiatry, entering exam, 0 op
- 080503A-02: Child psychiatry, final exam, 0 op
- 080503A-03: Child psychiatry, logbook, 0 op
- 040038Y: Clinical Anatomy, 3rd period, 1 op
- 041010Y: Clinical Genomics, 2 op
- 040037Y: Clinical Pathology, 2nd period, 1 op
- 040040Y: Clinical Physiology, 3rd period, 2 op
- 080505A: Clinical genetics, 2 op
- 040128A: Clinical pharmacology and medicinal treatment, 1 op
- 040127A: Clinical pharmacology and prescriptions, 1 op
- 080203A: Dermatology and venereology, 5 op
- compuls26*
- 080203A-01: Dermatology and venereology Pre-examination, 0,5 op
- 080203A-02: Dermatology and venereology Small group classes, 2 op
- 080203A-03: Dermatology and venereology Theme day, 1 op
- 080203A-04: Dermatology and venereology Seminars, 1 op
- 080203A-05: Dermatology and venereology patient cases, 0,5 op
- 080203A-06: Dermatology and venereology examination, 1 op
- 080202A: Forensic medicine, 4 op
- compuls18*
- 080202A-01: Forensic medicine, obligatory studies, 2 op
- 080202A-02: Forensic medicine, exam, 2 op
- 080914A: Geriatrics, 4 op
- 080716A: Internal Medicine 2, 4,5 op
- Compulsory*
- 080716A-01: Clinical Practice, Internal Medicine 2, 0 op
- 080716A-02: Infectious Diseases compulsory studies, 1 op
- 080716A-03: Infectious Diseases, Examination, 1,5 op
- 080716A-04: Rheumatology, Examination, 1 op
- 080716A-05: Rheumatology, compulsory studies, 1 op
- 080716A-06: Internal Medicine 2, Final Examination, 0 op
- 080711A: Internal medicine I, 4,5 - 21 op
- compuls20*
- 080711A-06: Internal Medicine, haematology, 2 op
- 080711A-07: Internal Medicine, endocrinology, 3 op
- 080711A-08: Internal Medicine, gastroenterology, 3 op
- 080711A-09: Internal Medicine, ECG/cardiology, 3 op
- 080711A-10: Internal Medicine, nephrology, 2 op
- 080711A-12: Internal Medicine Emergency duties, 0,5 op
- 080711A-14: Internal Medicine Small group classes, 1 op
- 080711A-15: Internal Medicine Themedays, 0,5 op
- 080711A-16: Internal Medicine Clinical practice, 1,5 op
- 080711A-19: Clinical examination, 0 op
- 080633A: Laboratory medicine, 3 op
- compuls23*
- 080633A-01: Small group classes Clinical chemistry, 1 op
- 080633A-02: Theme Day Laboratory medicine, 0,2 op
- 080633A-03: Examination Laboratory medicine, 1,8 op
- 040039Y: Medical Biochemistry and Molecular Biology, clinical studies, 3rd period, 1 op
- 080301A: Neurology, 6 - 6,5 op
- Compulsory*
- 080301A-02: Neurology, obligatory demonstrations and seminars, 3 op
- 080301A-03: Neurology, final exam, 3 op
- 080304A: Neurosurgery, 3 op
- compuls21*

- 080304A-01: Neurosurgery, small group rounds, 2 op
 080304A-02: Neurosurgery, final exam, 1 op
 080510A: OSCE, 0 op
 080401A: Obstetrics and gynecology, 10 op
compuls27
 080401A-01: Obstetrics and gynecology, entering exam, 0,5 - 1 op
 080401A-02: Obstetrics and gynecology, week exams I, II, III, 1 op
 080401A-03: Obstetrics and gynecology, 2 op
 080401A-05: Obstetrics and gynecology, log book, 4,5 - 5 op
 080401A-06: Obstetrics and gynecology, exam, 2 op
 080410A: Occupational health, 2 op
 080204A: Oncology, 4 op
 080303A: Ophthalmology, 4 op
compuls25
 080303A-01: Ophthalmology, Pre-examination, 0 op
 080303A-02: Ophthalmology, Small group classes, 0 op
 080303A-03: Ophthalmology, Final examination, 0 op
 080224A: Organ pathology 3, 2 op
compuls17
 080224A-01: Organ pathology III, microscopic, 0 op
 080224A-02: Organ pathology III, seminars, 0 op
 080224A-03: Organ pathology III, exam, 0 op
 080222A: Organ pathology I, 6 op
compuls16
 080222A-01: Organ pathology 1, group study, 2,5 op
 080222A-02: Organ pathology 1, theme days, 1 op
 080222A-03: Organ pathology 1, microskop study, 1,5 op
 080222A-04: Organ pathology 1, exam, 1 op
 080223A: Organ pathology II, 2 op
Compulsory
 080223A-01: , 1 - 1,5 op
 080223A-04: , 0,5 op
 080223A-03: , 0,5 op
Electives
 080223A-02: , 0 op
 080302A: Oto-rhino-laryngology, 6 op
Compulsory
 080302A-01: Oto-rhino-laryngology, entering exam, 1 op
 080302A-03: Oto-rhino-laryngology, final exam, 3 op
 080302A-04: Oto-rhino-laryngology, compulsory studies, 2 op
 080502A: Pediatrics, 14 op
Compulsory
 080502A-01: Paediatrics, Exam, 1 op
 080502A-03: Paediatrics, 10 patient cases, 1 op
 080502A-04: Paediatrics, Final exam, 1,5 op
 080502A-05: Paediatrics, Patient examination and patient records, 1 op
 080502A-06: Paediatrics, Logbook, 9,5 op
 080916A: Physiathry and rehabilitation, 5 op
 080103A: Psychiatry, 12 - 14 op
Compulsory
 080103A-05: Psychiatry preexamination, 0,5 op
 080103A-06: Psychiatry clinical practice, 2 op
 080103A-04: Psychiatry final examination, 1,5 op
 080103A-02: Psychiatry, obligatory, 8 op
 081421A: Public Health, 3rd period, 1 op
 081422A: Public Health, 4th period, 1 op
 081423A: Public Health, 5th period, 5 op
 081424A: Public Health, 6th period, 8 op
 040116A: Public health science, 5 op
 080205A: Pulmonary diseases, 3 op
compuls19
 080205A-03: Pulmonary diseases preliminary examination, 0,5 op
 080205A-04: Pulmonary diseases small group classes, 1 op
 080205A-05: Pulmonary diseases Theme day and Seminar, 0,5 op

- 080205A-06: Pulmonary diseases Final Examination, 1 op
 081803A: Radiation and its safe use, 1,5 op
 080803A: Radiology I, 3,5 - 5 op
compuls22
 080803A-02: Radiology 1, and radiation and its safe use, group studies, 2,5 op
 080803A-03: Radiology 1 and radiation and its safe use, examination, 1 op
 080813A: Radiology II, 2 op
 080712A: Surgery I, 16 - 24 op
Compulsory
 080712A-02: Surgery, exam, 3 - 6 op
 080712A-05: Clinical studies, 1 op
 080712A-06: Small group classes, 8 op
 080712A-07: Clinical practice, 1 op
 080712A-08: Theme Days Surgery, 2 op
 080712A-09: Preliminary Examination Surgery, 1 op
 080714A: Surgery II, 1 - 8 op
Compulsory
 080714A-01: Small Group Classes, 1 op
 080714A-04: Final Examination, 4 op
 080714A-03: Clinical Practice, 1 op
 080714A-02: Theme Days, 2 op
 080001Y: Treatment of critically ill patient and patient safety, 4 - 5 op

Advanced studies (20 op)

- 040300A: Maturity exam (native language), 0 op
 080705S: Thesis, 20 op
Compulsory
 080705S-01: Thesis, Study plan, 4 op
 080705S-02: Thesis, 16 - 20 op

Practical training (24 op)

- 080707S: Practical training, 3 - 24 op
Compulsory
 080707S-01: Practical training, 6 op

Tutkintorakenteisiin kuulumattomat opintokokonaisuudet ja -jaksot

- 042001Y-04: Clinical Anatomy, 1 op
 042001Y-05: Clinical Pathology, 1 op
 042001Y-02: Clinical Physiology 1, 1 - 2 op
 042001Y: Clinical Studies, 7 op
 903008Y: Conversational Skills in German, 1,5 op
 041002Y-05: Environment, Lifestyle and Health Studies, 1 op
 041002Y-06: Environment, Lifestyle and Health Studies, 1 op
 041002Y-04: Environment, Lifestyle and Health Studies, 1 op
 041002Y: Environment, Lifestyle and Health Studies, 4 op
 041001Y: Evidence Based Medicine, 3,5 - 5 op
 041001Y-03: Evidence Based Medicine-studies, 0,5 op
 041001Y-05: Evidence Based Medicine-studies, 1 op
 040015Y: Health Care Ethics, 1 - 3,5 op
 040015Y-04: Health Care Ethics, 1 op
 040015Y-03: Health Care Ethics Studies, 1 op

040012Y: Knowledge and Research, 3,5 - 10 op
 042001Y-01: Medical Biochemistry and Molecular Biology, clinical studies, 1 op
 042001Y-06: Medical Biochemistry and Molecular Biology, clinical studies 1, 1 op
 042001Y-07: Medical Biochemistry and Molecular Biology, clinical studies 2, 1 op
 903007Y: Medical German Text Workshop, 1,5 op
 041003Y-06: Professional Development, 2 op
 041003Y: Professional Development in Medicine Studies, 3 op
 041003Y-03: Professional Development in Medicine Studies 3, 1 op
 080427A-02: Public Health, 1 op
 080427A-03: Public Health, 5 op
 080427A-01: Public Health 1, 1 op
 080427A-04: Public Health 4, 8 - 9 op
 080812A: Radiology II, 3 op
 040019S: Thesis Data-analysis, 2 op

Opintojaksojen kuvaukset

Tutkintorakenteisiin kuuluvien opintokohteiden kuvaukset

040105Y: Basic Epidemiology, 1,5 op

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Jouni Jaakkola

Opintokohteen kielet: Finnish

ECTS Credits:

1.5 ECTS (Basics of Epidemiology)

Language of instruction:

English

Timing:

During the second year, spring semester (C4)

Learning outcomes:

Upon completion of the course students will understand the basic epidemiologic thinking / basic concepts of epidemiologic

methods in medical and health sciences and know the types of epidemiologic studies. They are also able to calculate measures of disease occurrence, use measures of effect to estimate the association between a given exposure and dis-ease and are able to define the concept of confounding and know how to apply it in professional practice.

Contents:

Structure of the Course:

- 1. Introduction to epidemiology; causation
- 2. Measures of disease occurrence and effect
- 3. Types of epidemiologic studies: cohort studies
- 4. Types of epidemiologic studies: case-control studies
- 5. Biases
- 6. Random error and statistical methods
- 7. Analyzing simple epidemiologic data
- 8. Control of confounding in stratified analysis
- 9. Interaction
- 10. Regression models in epidemiology

In addition, the course includes two exercise sessions conducted in small groups on epidemiologic concepts and methods based on 1) critical reviews of articles and 2) calculation exercises. Students will also individually conduct a critical review of a scientific article.

Mode of delivery:

Face-to-face teaching and independently performed exercise in the Optima environment.

Learning activities and teaching methods:

The course consists of lectures (10 h), two group exercises (3 h each) and one individual exercise (critical evaluation of an article) which is independently performed in the Optima environment.

Target group:

Medical and dental students of the second year.

Prerequisites and co-requisites:

No.

Recommended optional programme components:

The course is linked to C1 – Public health and multiprofessional collaboration (Fundamentals of public health science), C4 – Environmental health, C11 – General practitioner and public health and Environment, Lifestyle and Health (ELH) track. Closely linked to the course in biostatistics delivered during the same term and Evidence based medicine (EBM) track.

Recommended or required reading:

Required reading: lecture notes and Rothman KJ. Epidemiology: and introduction. 2nd edition. Oxford University Press, New York, 2012.

Assessment methods and criteria:

Participation to the group exercises is mandatory and controlled for. The individual exercise is assessed by the teacher. Written final examination.

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

Grading:

The course unit utilizes a numerical grading scale 1-5/fail. At least 10 points are required for passing the examination.

Person responsible:

Post doctoral researcher Taina Lajunen

Working life cooperation:

No.

Other information:

No other information.

040016Y: Basic life support, 0,5 op

Voimassaolo: 01.08.2011 -

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Alahuhta, Seppo Matias

Opintokohteen kielet: Finnish

ECTS Credits:

0,5 ECTS

Language of instruction:

Finnish

Timing:

First year, C 2

Learning outcomes:

The students:

After completion of the course the student

-will recognize the patient with cardiac arrest and start the treatment according to CPR guideline including basic life support and defibrillation.

- recognize the need of immediate first aid, knows to prevent deterioration of injuries and support vital functions.

-knows the most important measures which have effect on survival after cardiac arrest

-are willing to continuous training on resuscitation and first aid

Contents:

Purpose of first aid and legal aspects. Cardiopulmonary resuscitation, major bleeding, shock. Airway management, foreign bodies. Burns. Accidents and multi patient situations, estimation and priorities.

Mode of delivery:

Face-to-face teaching.

Learning activities and teaching methods:

Lectures 8 h

practicing in small groups 2 h

Independent work 10 h

Target group:

For the medical students of the first year

Prerequisites and co-requisites:

The students of the first year.

Recommended optional programme components:

No.

Recommended or required reading:

Basic life support guideline: <http://www.kaypahoito.fi/web/kh/suositukset/naytaartikkeli/.../hoi17010>

Assessment methods and criteria:

Taking part into the group teaching events.

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

Grading:

pass/fail

Person responsible:

Professor Seppo Alahuhta

Working life cooperation:

No.

Other information:

No other information.

040028Y: Environment, Lifestyle and Health Studies, 1st period, 2 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Timo Hugg

Opintokohteen kielet: Finnish

ECTS Credits:

2 ECTS

Language of instruction:

Finnish

Timing:

1st year

Learning outcomes:

Health promotion (0,5 ECTS CR): The student is able to recognize the concepts of wellbeing, health promotion and main elements of wellbeing. The student is able to understand the importance of health promotion in general and as a part of his/her work. The student will receive an overview of the health promotion activities conducted on the different levels. The student is aware of the importance of lifestyle factors and the role of non-governmental organizations in health promotion work.

Physical activity, exercise and sports medicine (0,5 ECTS cr)

Nutrition (0,5 ECTS cr)

Addiction medicine (0,5 ECTS cr)

Student is able to comprehend why alcohol and drugs are used and will understand substance use as cultural and neurobiological phenomenon.

Upon completion of the course, the student will be able to work in an interprofessional team and

- guide towards right kind of nutrition, physical activity and exercise and give reasons for the advice
- handle drug abusers properly and recognize and define the need of treatment, and plan it
- describe the influence of environment to one's health and to discuss matters concerning environmental health
- recognize the need of rehabilitation and plan a rehabilitation program

Contents:

1 Health promotion (0.5 ECTS CR): Including lectures from the following topics:

- Definition of wellbeing
- Roles and responsibilities of state government, municipalities and individuals in health promotion
- Role of health care experts in health promotion
- Role of physical activity, exercise and nutrition in health promotion
- Role of non-governmental organizations in health promotion
- Case example: The North Karelia Project

Physical activity, exercise and sports medicine (0,5 ECTS cr)

Addiction medicine tract (0,5 ECTS cr): Introducing the addiction tract. Basic information about alcohol and drugs, their epidemiology, impact on general health and neurological mechanisms of addiction. Substance use is discussed as cultural as well as biological phenomenon.

Nutrition (0,5 ECTS cr)

Mode of delivery:

Health promotion (0.5 ECTS CR)

Physical activity, exercise and sports medicine (0,5 ECTS cr)

Addiction medicine tract (0,5 ECTS cr)

Nutrition (0,5 ECTS cr)

Learning activities and teaching methods:

Health promotion: Theme day type course consists of lectures and periods of discussion (6 h), individual work and the final examination (7 h) which is independently performed in the Optima environment.

Physical activity, exercise and sports medicine

Addiction medicine tract: Lectures (8h), individual work, and a learning diary performed in the Optima environment

Nutrition

Target group:

Medical students, dent.

Prerequisites and co-requisites:

No.

Assessment methods and criteria:

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

Grading:

The course unit utilizes verbal grading scale "pass/fail"

Person responsible:

The person in charge of the ELH-studies is Timo Hugg

Following persons are in charge of the sub-tracks:

Health promotion: Timo Hugg

Physical activity, exercise and sports medicine: Tiina Nylander and Raija Korpelainen

Addiction medicine: Solja Niemelä

Nutrition: Olavi Ukkola

Working life cooperation:

No.

040029Y: Environment, Lifestyle and Health Studies, 4th period, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Timo Hugg

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040030Y: Environment, Lifestyle and Health Studies, 5th period, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Timo Hugg

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040119Y: Environmental health care, 1 op

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Jouni Jaakkola

Opintokohteen kielet: Finnish

ECTS Credits:

1.0 ECTS credits/ 27 hours of work

Language of instruction:

Finnish/English

Timing:

During the second year, spring semester (C4)

Learning outcomes:

Upon completion of the course, the student will

- get an overview from the system and the function of environmental health
- get to know the most beneficial and harmful environmental factors and the health risks associated with those
- understand the role of doctor in the field of environmental health

Contents:

Environmental health consist of following contents:

- Environment and health
- Climate change and health
- Outdoor air quality and health
- Health effects of hot and cold environment – and control
- Environmental radiation and health
- Environmental noise
- Drinking water, food, microbes, microbiological risks and epidemics
- Chemical risk factors of drinking water
- Physical, chemical and biological risk factors in indoor environments
- Municipal environmental health control
- Exceptional situations related to environmental health – preparation and action
- Role of doctor in environmental health

Mode of delivery:

Face-to-face teaching. The course will be arranged during two seminar days. The course will consist of the lectures, the group works and the final examination.

Learning activities and teaching methods:

The course of environmental health includes:

- 10 h of lectures
- 4.5 h of group works
- 1 h of open conversation

Students will get to know as a group to the case example of environmental health, and try to find answers to the open questions associated with the case examples.

Target group:

Graduate students of medicine and dentistry.

Prerequisites and co-requisites:

No.

Recommended optional programme components:

Studies in question belong to Environment, Lifestyle and Health (ELH) track that continues integrated throughout the curriculum. The course is linked to C1 – Public health and multiprofessional collaboration (Basics of public health science), C4 – Epidemiology, C11 – General practitioner and public health (Advanced studies of public health science) and Evidence Base Medicine and Professional Development in Medicine Studies.

Recommended or required reading:

Required reading:

a) Helena Mussalo-Rauhamaa, Wendla Paile, Jouko Tuomisto, Heikki S. Vuorinen (ed.): Environmental health. Duodecim 2007. Otavan Kirjapaino Oy, Keuruu 272 p. (in Finnish)

b) Handouts can be loaded from Optima system.

Recommended reading:

Exceptional situations related to environmental health. A handbook for environmental health care staff and cooperation partners. Publications of Ministry of Social Affairs and Health 2010:2. Ministry of Social Affairs and Health, Helsinki, 2010. 226 p. (In Finnish with English summary). (<http://www.stm.fi/julkaisut/nayta/julkaisu/1537669>)

Assessment methods and criteria:

The course of Environmental health is an entity with compulsory and active attendance. Students have to participate to the seminar days and pass the final examination.

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

Grading:

The course unit utilizes verbal grading scale "pass/fail". At least 10 points are required for passing the examination

Person responsible:

The person in charge of the Environmental health -studies is a post-doctoral researcher Timo Hugg

Working life cooperation:

No.

040031Y: Evidence Based Medicine-studies, 1st period, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Marjo Renko

Opintokohteen kielet: Finnish

ECTS Credits:

1 ECTS

Learning outcomes:

The objective during the first year is that the student understands the idea of evidence based medicine (EBM) and learns what skills are needed to perform it. The student knows how to search and appraise medical literature both in Finnish and in English.

Contents:

EBM is a core of modern medicine as all clinical procedures from diagnosis to treatment are based on scientific evidence. Tools to perform EBM are taught from the very beginning of medical studies.

Mode of delivery:

Face-to-face teaching.

Recommended optional programme components:

The idea is included in all courses.

040032Y: Evidence Based Medicine-studies, 2nd period, 0,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Marjo Renko

Opintokohteen kielet: Finnish

ECTS Credits:

0,5 ECTS

Learning outcomes:

The objective during the second year is that the student understands the principles of epidemiology and what it means in practical medicine.

Contents:

The teaching includes the most important elements needed in reading and appraising medical articles.

040033Y: Evidence Based Medicine-studies, 3rd period, 0,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Marjo Renko

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040034Y: Evidence Based Medicine-studies, 5th period, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040035Y: Evidence Based Medicine-studies, 6th period, 0,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Marjo Renko

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040018Y: Health Care Ethics First period, 1,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Mäkelä, Jyrki Tapani

Opintokohteen kielet: Finnish

Voidaan suorittaa useasti: Kyllä

ECTS Credits:

1,5 ECTS

Language of instruction:

Finnish

Timing:

1st year autumn and spring term.

Learning outcomes:

Upon completion of the course, the student will be able to use and define the basic concepts of medical ethics and their basis. The student will be able to reflect his or her own value system and discuss his or her relation to the laws, norms, ethics and the value base of the society. He or she will also be able to take part in ethical discussion. The student will be able to evaluate the value of learning, what he or she has learned and, his or her responsibility in it.

Contents:

The ethical and judicial basis of the medical profession, the common value base and principles in health care.

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

Lectures 3 x 90 min, 1 x 90 group discussion with teacher, contemplation assignment.

Target group:

Medical students, dental students.

Prerequisites and co-requisites:

No.

Recommended optional programme components:

The course is part of Professional development in medicine –studies including into new curriculum of Medicine

Recommended or required reading:

[Lääkäriin etiikka](#) (2013) Finnish Medical Association (in Finnish). In addition other scientific literature of the student's choice.

Assessment methods and criteria:

Lectures, group discussion, contemplation assignment, learning diary

Grading:

pass/fail

Person responsible:

Minna Soinio-Kivari

Working life cooperation:

No.

040019Y: Health Care Ethics Fifth period, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Mäkelä, Jyrki Tapani

Opintokohteen kielet: Finnish

Voidaan suorittaa useasti: Kyllä

Language of instruction:

Finnish

Timing:

Part 1: 1st year spring term

Part 2: 4th year spring term

Part 3: 6 th year autumn term

Learning activities and teaching methods:

Part 1: Lectures 3 x 90 min, 1 small group meeting with tutor

Part 2: Lectures 1 x 90min and theme day

Part 3: Lectures 1 x 90min and theme day

Recommended or required reading:

[Lääkäriin etiikka](#) (2005) Finnish Medical Association (in Finnish). In addition other scientific literature according to student's choice.

Assessment methods and criteria:

Part 1: Lectures, small group meetings, learning diary

Part 2: Lectures and theme day

Part 3: Lectures and theme day

Grading:

Pass/fail

040020Y: Health Care Ethics Sixth period, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Mäkelä, Jyrki Tapani

Opintokohteen kielet: Finnish

Voidaan suorittaa useasti: Kyllä

Language of instruction:

Finnish

Timing:

Part 1: 1st year spring term

Part 2: 4th year spring term

Part 3: 6 th year autumn term

Learning activities and teaching methods:

Part 1: Lectures 3 x 90 min, 1 small group meeting with tutor

Part 2: Lectures 1 x 90min and theme day

Part 3: Lectures 1 x 90min and theme day

Recommended or required reading:

[Lääkäriin etiikka](#) (2005) Finnish Medical Association (in Finnish). In addition other scientific literature according to student's choice.

Assessment methods and criteria:

Part 1: Lectures, small group meetings, learning diary

Part 2: Lectures and theme day

Part 3: Lectures and theme day

Grading:

Pass/fail

040117Y: Interviewing and examining patients, 4 op

Opiskelumuoto: Basic Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Savolainen, Markku, Markku Timonen

Opintokohteen kielet: Finnish

ECTS Credits:

4 ECTS: general practice 2.0 and internal medicine 2.0 ECTS

Language of instruction:

Finnish

Timing:

The second year (C4), spring semester

Learning outcomes:

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

- distinguish the basic concepts of doctor-centered and patient-centered communication;
- describe the principles of clinical examination of patients.
- exam patients independently;
- describe the interprofessional team-work in the physician's as well as the dentist's work.

Contents:

The course includes introduction to basic concepts of doctor-centered and patient-centered communication, the medical history and patients record, as well as clinical examination of patients with musculoskeletal, stomach, lungs, heart, neurological problems.

Mode of delivery:

Face-to-face teaching.

Learning activities and teaching methods:

Lectures (14 hours), introductory seminar, small group teaching, exercise session for doctor-patient communication, practical period in health care center (3 days), and closing work-shop.

Target group:

The students from medicine and dentistry.

Prerequisites and co-requisites:

C1 Public health and interprofessional collaboration course has to be done.

Recommended optional programme components:

The course has to be completed during preclinical period (first two years) of medical and dental studies.

Recommended or required reading:

Kumpusalo E, Ahto M, Eskola K, Keinänen-Kiukaanniemi S, Kosunen E, Kunnamo I, Lohi J (ed.): Yleislääketiede, Kustannus Oy Duodecim, Karisto Oy, Hämeenlinna 2005. Pages 93-104, 105-115 and 116-123.

Campbell, T.L. & Larivaara, P. 2004. Working with Families in primary care. Teoksessa: Jones R & ym. (ed.). Oxford Textbook of Primary Medical Care. Oxford University Press, 2004 s. 299-303. Larivaara, P, & Taanila, A. Towards interprofessional family-oriented teamwork in primary services: evaluation of an education programme. Journal of Interprofessional Care, 2004, 18/2:153-163.

Mustajoki, P., Saha, H. & Sane, T. (ed.): Potilaan tutkiminen. Kustannus Oy Duodecim, Saarijärvi 2009.

Assessment methods and criteria:

Participation in the introductory seminar, small group teaching, exercise session for doctor-patient communication, practical period in health care center, and in closing work-shop.

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

Grading:

Pass/fail

Person responsible:

Professor Markku Timonen; general practice

Professor Olavi Ukkola; internal medicine

Working life cooperation:

Yes, during the three day practical training in health care centres.

compuls3

040117Y-01: General practice, 2 op

Voimassaolo: 01.01.2013 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Markku Timonen

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040117Y-02: Internal medicine, 2 op

Voimassaolo: 01.01.2013 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Savolainen, Markku

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040013Y: Introduction to Medical Studies, 2 op

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Olli Vainio

Opintokohteen kielet: Finnish

ECTS Credits:

2 ECTS-credits

Language of instruction:

Finnish

Timing:

1st academic year (C1-C2)

Learning outcomes:

Part 1: Introduction to university studies (1. semester): Student knows the structure and goals of the medical education, and orientates to the University of Oulu and Faculty of Medicine as a learning environment.

Part 2: Teacher tutorial (semesters 2-12): Student is able to plan the progression of studies, and builds up his/her professional identity and expertise in medicine.

Contents:

Structure and goals of the medical education, personal study plan (eHOPS), the University of Oulu and the Faculty of Medicine as a learning environment, studying at the university, and becoming a doctor.

Mode of delivery:

Face-to face teaching

Learning activities and teaching methods:

1st year: Information lectures, small group meetings, peer tutoring, planning and evaluating a personal study plan (eHOPS), independent studying, learning diary.

1st-6th year: Teacher tutoring, evaluating a personal study plan (eHOPS), independent studying, learning diary, information lectures

Target group:

medical students

Prerequisites and co-requisites:

No

Recommended optional programme components:

Part of studies belonging to the Professional development in medicine (PMD) -track.

Recommended or required reading:

Study guide for the Degree Programme in Medicine and University's [Guide for Degree Students](#).

Assessment methods and criteria:

Introduction to university studies (1 ects cr): active participation to peer tutoring

Lectures and infos (1 ects cr)

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

Grading:

pass / fail

Person responsible:

Professor Olli Vainio

Working life cooperation:

No

Other information:

No

compuls

040013Y-01: Introduction to the university studies, 1 op

Opiskelumuoto: General Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Olli Vainio

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040013Y-02: Introduction to Medical Studies, part 2, 1 op

Opiskelumuoto: General Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Olli Vainio

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040024Y: Knowledge and research II, Literature retrieval, 4 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Pentti Nieminen

Opintokohteen kielet: Finnish

Leikkaavuudet:

ay040024Y Knowledge and research II, Literature retrieval (OPEN UNI) 4.0 op

ECTS Credits:

4 ECTS

Timing:

1st year

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 fields of medicine, dentistry and 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 research ethics and good scientific practice.

Contents:

Guidelines for written assignments and word processing:

Structure of assignments and thesis, reporting of findings, tables and figures, citing and references.

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.

Literature retrieval:

Library information systems, medical and dental publications, scientific online journals, Medline, Medic, Scopus, Cochrane Library, electronic books, reference management software.

Special issues in medical research:

Ethics in research, regulations in clinical research and use of animals in scientific research, research groups.

Mode of delivery:

Blended teaching.

Learning activities and teaching methods:

040024Y (4 op) Knowledge Management and Research II

Target group:

Medical, dental, health sciences and medical wellness technology students

Prerequisites and co-requisites:

None.

Recommended optional programme components:

Knowledge Management and Research II

041001Y Evidence Based Medicine

902006Y Reading for Academic Purposes

902007Y Scientific Communication

Recommended or required reading:

Material in lessons small group lessons.

Assessment methods and criteria:

Regular and active participation in the small group lessons and completion of practical projects.

Grading:

1,2,3,4,5, fail

Person responsible:

Associate professor Pentti Nieminen

040025Y: Knowledge and research, Lessons and written examination, 1,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Pentti Nieminen

Opintokohteen kielet: Finnish

Leikkaavuudet:

ay040025Y Knowledge and research, Lessons and written examination (OPEN UNI) 1.5 op

ECTS Credits:

1,5 ECTS

Timing:

2nd year

Learning outcomes:

The student knows the role of scientific publications, can use and evaluate information sources critically.

The student is familiar with statistical computing in the fields of medicine, dentistry and health sciences. 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 communication:

Rresearch articles, critical evaluation of research findings and reporting.

Statistical methods:

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.

Mode of delivery:

Blended teaching.

Target group:

Medical, dental, health sciences and medical wellness technology students

Prerequisites and co-requisites:

None.

Recommended or required reading:

Material in lessons small group lessons.

Grading:

1-5, fail

Person responsible:

Associate professor Pentti Nieminen

040027Y: Knowledge and research, Practical project, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: General Studies**Laji:** Course**Vastuuyksikkö:** Medicine**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Pentti Nieminen**Opintokohteen kielet:** Finnish**Leikkaavuudet:**

ay040027Y Knowledge and research, Practical project (OPEN UNI) 1.0 op

ECTS Credits:

1 ECTS

Timing:

2nd year

Learning outcomes:

The student is familiar with statistical computing in the fields of medicine, dentistry and health sciences. Further, the student is able to analyze data with basic statistical methods, use basic statistical significance tests and report findings.

Contents:

Use of statistical software, basic methods in comparing groups and estimating associations between variables, reporting of statistical findings

Mode of delivery:

Blended teaching

Learning activities and teaching methods:

Practical project

Target group:

Medical, dental, health sciences and medical wellness technology students

Prerequisites and co-requisites:

None

Recommended or required reading:

Material in lessons small group lessons.

Assessment methods and criteria:

Completion of practical projects.

Grading:

Pass/fail

Person responsible:

Associate professor Pentti Nieminen

040026Y: Knowledge and research, Small group exercises, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: General Studies**Laji:** Course**Vastuuyksikkö:** Medicine**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Pentti Nieminen**Opintokohteen kielet:** Finnish

Leikkaavuudet:

ay040026Y Knowledge and research, Small group exercises (OPEN UNI) 1.0 op

ECTS Credits:

1 ECTS

Timing:

2nd year

Learning outcomes:

The student is familiar with statistical computing in the fields of medicine, dentistry and health sciences. 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:

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.

Mode of delivery:

Blended teaching

Learning activities and teaching methods:

Small group exercises

Target group:

Medical, dental, health sciences and medical wellness technology students

Prerequisites and co-requisites:

None

Recommended or required reading:

Material in lessons small group lessons.

Assessment methods and criteria:

Regular and active participation in the small group lessons

Grading:

Pass/fail

Person responsible:

Associate professor Pentti Nieminen

040021Y: Knowledge and research, Tools, 0,5 - 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Pentti Nieminen

Opintokohteen kielet: Finnish

ECTS Credits:

1 ECTS

Timing:

1st year.

Learning outcomes:

By the end of the course the student has practiced the following skills: using information and communication technology resources in the University of Oulu, using workstations available in the Medical Faculty, applying basic software necessary in the studies. The student knows basics in scientific writing.

Contents:

Information and communication technology:

Workstations, information security and confidentiality, networks, and office software.

Guidelines for written assignments and word processing:

Structure of assignments and thesis, reporting of findings, tables and figures, citing and references.

Mode of delivery:

Blended teaching.

Learning activities and teaching methods:

040021Y (1 ECTS) Knowledge Management and Research, Tools

Target group:

Medical, dental, health sciences and medical wellness technology students

Prerequisites and co-requisites:

None.

Recommended optional programme components:

Knowledge Management and Research II
902006Y Reading for Academic Purposes
902007Y Scientific Communication

Recommended or required reading:

Material in lessons small group lessons.

Assessment methods and criteria:

Regular and active participation in the small group.

Grading:

Pass/fail

Person responsible:

Associate professor Pentti Nieminen

040022Y: Knowledge and research, Written assignment, 1,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Pentti Nieminen

Opintokohteen kielet: Finnish

ECTS Credits:

1,5 ECTS

Timing:

1st year

Learning outcomes:

By the end of the course the student has practiced the following skills: using information and communication technology resources in the University of Oulu, using workstations available in the Medical Faculty, applying basic software necessary in the studies. The student knows basics in scientific writing.

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

Contents:

Information and communication technology:

Workstations, information security and confidentiality, networks, and office software.

Guidelines for written assignments and word processing:

Structure of assignments and thesis, reporting of findings, tables and figures, citing and references.

Scientific communication:

Scientific journals, research articles, critical evaluation of research findings.

Mode of delivery:

Blended teaching.

Learning activities and teaching methods:

040022Y (1,5 ECTS) Knowledge Management and Research I, Written and teaching methods assignment

Target group:

Medical, dental, health sciences and medical wellness technology students

Prerequisites and co-requisites:

None.

Recommended optional programme components:

Knowledge Management and Research II
902006Y Reading for Academic Purposes
902007Y Scientific Communication

Recommended or required reading:

Material in lessons small group lessons.

Assessment methods and criteria:

Completion of practical project.

Grading:

Pass/fail.

Person responsible:

Associate professor Pentti Nieminen.

040017Y: Leadership in Health Care, 2 op

Voimassaolo: 01.08.2013 -

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Minna Hallia

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040036Y: Professional Development in Medicine Studies, 3rd period, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040104A: Psychology, 4 - 4,5 op

Opiskelumuoto: Basic Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Tuula Hurtig

Opintokohteen kielet: Finnish

ECTS Credits:

4 ECTS.

Language of instruction:

Finnish

Timing:

Autumn, C3

Learning outcomes:

A student learns to see a human comprehensively, from biopsychosocial frame of reference, finds new ways to observe and to influence with psychological methods on patients and their behaviour. Furthermore, an objective is, to help future medical and dental doctor to observe their influence on the behaviour of patients, and on operations of health caring system. Finally, a goal is to develop interactional skills of future doctors, to assist them to be able to continue their working and to prevent their vicarious traumatization.

Contents:

During lectures the following topics will be presented: Biopsychosocial approach, psychoanalytic personality theory, attachment theory, human lifespan, significance of learning theory in changing man's behaviour, basics of system theory, medical and dental doctor as a participant in the mental health care system, different kind of families and their phases of development, well-functioning family, roles of family members, interactional skills and dialog with patients and successfully working with different kind of patients. Furthermore vicarious traumatization and exhaustion and how

to manage them will be described. Topics of small groups are for instance problem solving therapy, traumatic crises, familial and cultural influence on behaviour of a human, youth psychology, psychology of old age, patient and family in health service and forensic psychology.

Mode of delivery:

Tuition will be implemented as face-to-face teaching.

Learning activities and teaching methods:

Lectures 26 hrs, obligatory small group participation 10 hrs, obligatory seminar participation 20 hrs, peer group participation 10 hrs and self studying.

Target group:

Medical and dental students on C 3 course.

Prerequisites and co-requisites:

-

Recommended optional programme components:

-

Recommended or required reading:

Contents of the lectures and written and oral presentations of the works of small groups.

Assessment methods and criteria:

End of course examination

Grading:

1-5/fail

Person responsible:

Lecturer

Working life cooperation:

-

Other information:

-

compuls4

040104A-01: Psychology, obligatory studies, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Tuula Hurtig

Opintokohteen kielet: Finnish

ECTS Credits:

4.5 ect

Timing:

C3

Learning outcomes:

A student learns to see a human comprehensively, from biopsychosocial frame of reference, finds new ways to observe and to influence with psychological methods on patients and their behaviour. Furthermore, an objective is, to help future medical and dental doctor to observe their influence on the behaviour of patients and on operations of health caring system. Finally, a goal is to develop interactional skills of future doctors and to prevent their vicarious traumatisations.

Contents:

During lectures the following topics will be presented: Biopsychosocial approach, psychoanalytic personality theory, attachment theory, human lifespan, significance of learning theory in changing man's behaviour, basics of system theory, medical and dental doctor as a participant in the mental health care system, different kind of families and their phases of development, well functioning family, roles of family members. Furthermore vicarious traumatisations and exhaustion and how to manage them will be

described. Topics of small groups are for instance problem solving therapy, use of hypnosis, traumatic crises, familial and cultural influence on behaviour of a human, clinical neuropsychology and cognitive functions, youth psychology, parenthood and forensic psychiatry.

Learning activities and teaching methods:

Lectures 28 hrs, obligatory small group participation 12 hrs, obligatory seminar participation 20 hrs, peer group participation 10 hrs and self studying.

Target group:

Medical and dental students

Recommended or required reading:

Contents of the lectures and written and oral presentations of the works of small groups.

Assessment methods and criteria:

End of course examination

Grading:

5-1/fail

Person responsible:

lecturer Karl-Erik Wahlberg

040104A-02: Psychology, final exam, 2 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Tuula Hurtig

Opintokohteen kielet: Finnish

ECTS Credits:

4.5 ects

Timing:

C3

Learning outcomes:

A student learns to see a human comprehensively, from biopsychosocial frame of reference, finds new ways to observe and to influence with psychological methods on patients and their behaviour. Furthermore, an objective is, to help future medical and dental doctor to observe their influence on the behaviour of patients and on operations of health caring system. Finally, a goal is to develop interactional skills of future doctors and to prevent their vicarious traumatisations.

Contents:

During lectures the following topics will be presented: Biopsychosocial approach, psychoanalytic personality theory, attachment theory, human lifespan, significance of learning theory in changing man's behaviour, basics of system theory, medical and dental doctor as a participant in the mental health care system, different kind of families and their phases of development, well functioning family, roles of family members. Furthermore vicarious traumatisations and exhaustion and how to manage them will be described. Topics of small groups are for instance problem solving therapy, use of hypnosis, traumatic crises, familial and cultural influence on behaviour of a human, clinical neuropsychology and cognitive functions, youth psychology, parenthood and forensic psychiatry.

Learning activities and teaching methods:

Lectures 28 hrs, obligatory small group participation 12 hrs, obligatory seminar participation 20 hrs, peer group participation 10 hrs and self studying.

Target group:

Medical and dental students

Recommended or required reading:

Contents of the lectures and written and oral presentations of the works of small groups.

Assessment methods and criteria:

End of course examination

Grading:

5-1/fail

Person responsible:

lecturer Karl-Erik Wahlberg

040104A-03: Psychology, compulsory 2, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Tuula Hurtig

Opintokohteen kielet: Finnish

ECTS Credits:

4.5 ects

Timing:

C3

Learning outcomes:

A student learns to see a human comprehensively, from biopsychosocial frame of reference, finds new ways to observe and to influence with psychological methods on patients and their behaviour. Furthermore, an objective is, to help future medical and dental doctor to observe their influence on the behaviour of patients and on operations of health caring system. Finally, a goal is to develop interactional skills of future doctors and to prevent their vicarious traumatisations.

Contents:

During lectures the following topics will be presented: Biopsychosocial approach, psychoanalytic personality theory, attachment theory, human lifespan, significance of learning theory in changing man's behaviour, basics of system theory, medical and dental doctor as a participant in the mental health care system, different kind of families and their phases of development, well functioning family, roles of family members. Furthermore vicarious traumatisations and exhaustion and how to manage them will be described. Topics of small groups are for instance problem solving therapy, use of hypnosis, traumatic crises, familial and cultural influence on behaviour of a human, clinical neuropsychology and cognitive functions, youth psychology, parenthood and forensic psychiatry.

Learning activities and teaching methods:

Lectures 28 hrs, obligatory small group participation 12 hrs, obligatory seminar participation 20 hrs, peer group participation 10 hrs and self studying.

Target group:

Medical and dental students

Recommended or required reading:

Contents of the lectures and written and oral presentations of the works of small groups.

Assessment methods and criteria:

End of course examination

Grading:

5-1/fail

Person responsible:

lecturer Karl-Erik Wahlberg

902006Y: Reading for Academic Purposes, 1,5 op

Voimassaolo: 01.08.1995 -

Opiskelumuoto: Language and Communication Studies

Laji: Course

Vastuuyksikkö: Languages and Communication

Arvostelu: 1 - 5, pass, fail

Opettajat: Eva Braidwood

Opintokohteen kielet: English

Leikkaavuudet:

ay902006Y Reading for Academic Purposes (OPEN UNI) 1.5 op

Proficiency level:

B2/C1

Status:

This course is compulsory for students of medicine and dentistry who choose English but are not exempted on the basis of their matriculation exam grade or the exemption exam.

Required proficiency level:

Students are expected to have had English as their A1 or A2 language at school or to have acquired equivalent skills.

ECTS Credits:

1,5 ECTS credits

Language of instruction:

English

Timing:

1st year spring term for the students of medicine and dentistry.

Learning outcomes:

Having completed the course, students will be able to

- understand and master basic medical terminology
- understand the use of appropriate vocabulary and text types in professional communication (with patients and colleagues)
- assess, combine and summarise information from various academic/scientific sources (scientific articles, medical databases and popular texts related to medicine)

Contents:

-

Mode of delivery:

Contact teaching with online elements

Learning activities and teaching methods:

-

Target group:

Students in the degree programs of medicine and dentistry.

Prerequisites and co-requisites:

-

Recommended optional programme components:

902007Y Scientific Communication

Recommended or required reading:

Course materials will be provided by the teacher in electronic form in Optima, for students to download and bring to class.

Assessment methods and criteria:

The course requirements include active participation in classroom work (18 hrs) and completion of home assignments (Reading journal and glossary: 20 hrs) and completing an end-of-course test (2 hrs). Some course work will be completed online.

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

Grading:

The evaluation scale is 1-5.

Person responsible:

Eva Braidwood

Working life cooperation:

-

Other information:

Students with the matriculation exam grade *laudatur* or *eximia cum laude approbatur* are exempted from the course but can participate voluntarily. The same applies to those who have graduated from an IB-program or other English medium secondary education.

902007Y: Scientific Communication, 1,5 op

Voimassaolo: 01.08.1995 -

Opiskelumuoto: Language and Communication Studies

Laji: Course

Vastuuyksikkö: Languages and Communication

Arvostelu: 1 - 5, pass, fail

Opettajat: Eva Braidwood

Opintokohteen kielet: English

Leikkaavuudet:

ay902007Y Scientific Communication (OPEN UNI) 1.5 op

Proficiency level:

B2/C1

Status:

This course is compulsory for students who have chosen English. An alternative course is 903008Y German.

Required proficiency level:

Students are expected to have had English as their A1 or A2 language at school or to have acquired equivalent skills.

ECTS Credits:

1,5 ECTS credits

Language of instruction:

English

Timing:

Students in the degree program of

o medicine: 4th year fall/autumn term

o dentistry: 3rd year spring term

Learning outcomes:

Having completed the course students will be able to

- use the English language for professional and academic communication in their own field (doctor-patient communication & doctor-doctor consultations),
- communicate fluently and accurately and express opinions and demonstrate their knowledge of the field (medical conferences and forums),
- summarize texts on professional and academic topics in their own field,
- give a presentation on a professional or academic topic relating to their own interest in medicine.

Students wishing to develop their writing skills, may choose, as an alternative, **the course in medical writing. Having completed this course, students will be able to**

- understand and follow the conventions of a research article in medicine,
- use grammatical patterns that are stylistically appropriate for research articles and other types of medical communication,
- use general scientific vocabulary and field specific terminology effectively.

Contents:

-

Mode of delivery:

Contact teaching

Learning activities and teaching methods:

-

Target group:

Students in the degree programs of medicine, dentistry, and wellness technology

Prerequisites and co-requisites:

-

Recommended optional programme components:

902006Y Reading for Academic Purposes

Recommended or required reading:

Information will be provided at the beginning of the course.

Assessment methods and criteria:

Assessment is based on active participation in classroom activities, completion of home assignments and presentations completion of writing assignments.

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

Grading:

The evaluation scale is 1-5.

Person responsible:

Eva Braidwood

Working life cooperation:

-

Other information:

Medical students **sign up** for the course in **WebOodi**. Information on the time and place of the classes will be provided in [Optima](#) and WebOodi.

Dentistry students sign up at their departments.

901037Y: Second Official Language (Swedish), Oral Skills, 2 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Language and Communication Studies

Laji: Course

Vastuuyksikkö: Languages and Communication

Opettajat: Liisa Niemi

Opintokohteen kielet: Swedish

Leikkaavuudet:

ay901037Y Second Official Language (Swedish), Oral Skills (OPEN UNI) 2.0 op

Ei opintojaksokuvauksia.

901036Y: Second Official Language (Swedish), Written Skills, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Language and Communication Studies

Laji: Course

Vastuuyksikkö: Languages and Communication

Opettajat: Liisa Niemi

Opintokohteen kielet: Swedish

Leikkaavuudet:

ay901036Y Second Official Language (Swedish), Written Skills (OPEN UNI) 1.0 op

Ei opintojaksokuvauksia.

040201A: Anatomy and medical cell and developmental biology, 21 - 22 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Basic Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Tuukkanen, Kaarlo Juha Kullervo

Opintokohteen kielet: Finnish

ECTS Credits:

21 ECTS credits / 567 hours of work

Language of instruction:

Finnish

Timing:

The course unit is held in the autumn semester. The course is recommended to complete at the first autumn semester of medical or dental studies.

Learning outcomes:

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

- understand the structure, development and function of the human body in order to manage the rest of the preclinical and clinical studies
- identify and describe the structures essential for all medical doctors in diagnostics and treatment, especially for first aid.
- display common anatomical knowledge for understanding medical theory and research and for dealing with evidence based medicine.

Upon completion of the medical cell and developmental biology part of the course the student should be able to:

- describe the structure of various cell types (especially mammalian cells) and the structure and function of cell organelles
- describe cell growth and cell division
- present the principles of the regulation of cell function and genetic regulation
- list the common research techniques in cell biology
- display an understanding of gametogenesis, fertilization, embryonal development (0-40days) and its regulation as well as the development of embryonal malformations.
- display an understanding of human growth and development.
- identify and describe the basic tissues of the human body and the microscopic structure of the tissues for understanding their normal and pathological function

Upon completion of the anatomy part of the course the student should be able to describe the structure of the organs and their topography in the body as well as surface projections of the internal organs. The student should be able to understand the main principles of the embryonal development. By using light microscope at the student should be able to recognize the main structures that are important for the function of the organs as well as structures which are important for pathological processes. In addition the student should be able to demonstrate the organs in living body, in preparations of the cadavers, anatomical models, X-ray images, diagrammatic drawing and in manual examination.

Contents:

Cell evolution and cell biology, human embryonal development (embryology), basic tissues which make up the organs (histology).

Systemic anatomy: nervous system and sensory organs, cardiovascular system and lymphatic system, thorax and respiratory system, abdomen and alimentary system, integument, pelvis, urinary system, genital systems, endocrine system and musculoskeletal system. Regional anatomy and topographical anatomy, organ development and histology integrated with the previous titles. Examples of the applications of the anatomical knowledge in clinical cases and manual palpation of main organs and structures.

Mode of delivery:

Face-to-face teaching.

Learning activities and teaching methods:

Lectures 140h / small group exercise 75h / Self-study 352 h (includes essay). Small group teaching will be provided in 2-4 h exercises. Each student will have 1-2 exercise sessions per week. Writing an essay in cell and developmental biology. In addition the dental students have at the 2nd term tooth development, histology and morphology given by the department of Dentistry. Anatomy study module includes an optional course of the anatomical dissection.

In addition 1 ECTS of clinical anatomy during clinical courses.

Target group:

First year medical and dental students.

Prerequisites and co-requisites:

The recommended prerequisites for the course unit is Faller and Schuenke, The Human Body. An Introduction to Structure and Function (Thieme), or similar text.

Recommended optional programme components:

The course must be completed during the preclinical stage of studies.

Recommended or required reading:**Anatomy**

Textbooks:

R.L. **Drake**, A.W. Vogl, A.W.M. Mitchell: **Gray's Anatomy** for students. Elsevier Churchill Livingstone (latest edition) or K.L. **Moore**: Clinically oriented Anatomy, Williams & Wilkins co (latest edition)

Atlas:

R. Putz, R. Pabst: **Sobotta**, Atlas of human anatomy, Vols I-II. Elsevier Urban&Fischer, München (latest edition) or F.

H. **Netter**: Atlas of human anatomy.

Pocket atlas:

H. **Feneis**: "Pocket Atlas of Human Anatomy, G. Thieme Pub. Stuttgart, (latest edition) (Thieme Flexibook) or Dorland's/Gray's Pocket Atlas of Anatomy Richard L. Drake, A. Wayne Vogl,

Neuroanatomy

W. **Kahle**, H. Leonhardt, W. Platzer: "Color Atlas and Textbook of Human Anatomy" Vol. 3: Central Nervous System and Sensory Organs (W. Kahle)

G. Thieme Pub. Stuttgart, (latest edition) (Thieme Flexibook)

Embryology:

T.W. Sadler: Langman's Medical Embryology. Williams&Wilkins co, Baltimore or

Cell Biology:

A.L. Kierszenbaum: Histology and Cell Biology: an introduction to pathology. Mosby, St Louis, (latest edition).

Additional material: H.Lodish, A.Berk, C.A.Kaiser, M.Krieger, M.P.Scott, A.Bretscher, H.Ploegh: Molecular Cell Biology. W.H.Freeman and Co, New York (latest edition).

Histology:

A.L. Kierszenbaum: Histology and Cell Biology: an introduction to pathology. Mosby, St Louis, (latest edition) or B. Young, J.S. Lowe, A. Stevens, J.W. Heath: Wheater's Functional Histology, A Text and Colour Atlas. Elsevier, Churchill Livingstone

Histology atlas can be found also in Thiemen e-books. (Color Atlas of Cytology, Histology and Microscopic Anatomy, 4th edition).

Web material:

<http://herkules oulu.fi/isbn9789514293238/> collection of essays written by students from previous courses of Medical cell and developmental biology.

Assessment methods and criteria:

This course unit utilizes continuous assessment. During the course unit, there are small exams every during each group practical (35 together). Half of the macroscopic anatomy exams and half of exams in each histology block (1-3) should be passed. In addition to this, the students will be compiling an essay, which will be assessed. The course unit includes four main exams: one in cell biology, one in extremities and back, one in organ anatomy and one in neuroanatomy. The assessment of the course unit is based on the learning outcomes of the course unit.

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

Grading:

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

Anatomy together with cell and developmental biology make the Anatomy course, which is composed of the following grades: examination of cell and developmental biology 30 credit points, neuroanatomy 10 credit points, examinations in small group sessions 30 credit points, human musculoskeletal system examination 20 credit points and final examination in anatomy 300 credit points, in sum 120 credit points graded to 0-5.

Person responsible:

Professor Juha Tuukkanen: Anatomy

Professor Petri Lehenkari: Medical cell and developmental biology

Working life cooperation:

No

Other information:

The course is the same for medical and dental students.

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040201A-01: Anatomy, examination in cell and developmental biology, 7 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 0,0 - 99,9

Opettajat: Lehenkari, Petri Pauli

Opintokohteen kielet: Finnish

ECTS Credits:

15 credits

Timing:

C1

Learning outcomes:

The learning outcomes are to understand the structure, development and function of the human body in order to manage the rest of the preclinical and clinical studies. The overall aim is to learn the structures essential for all medical doctors in diagnostics and treatment, especially for first aid. In addition the student will learn some common anatomical knowledge for understanding medical theory and research and for dealing with evidence based medicine.

Contents:

Systemic anatomy: blood, cardiovascular system and lymphatic system, thorax and respiratory system, abdomen and alimentary system, urinary system and integument, pelvis and genital systems, endocrine system, musculoskeletal system and nervous system and sensory organs. Regional anatomy and topographical anatomy, organ development and histology integrated with the previous titles. Examples of the applications of the anatomical knowledge in clinical cases.

Learning activities and teaching methods:

Lectures 82 h and 58 h small group exercise. Small group teaching will be provided in 2-4 h exercises. Each student will have 1-2 exercise sessions per week. In addition the dental students have at the 2nd term tooth development, histology and morphology given by the department of Dentistry. Anatomy study module includes an optional course of the anatomical dissection and another dissection course of a large mammal (pig).

Recommended or required reading:

K.L. Moore: Clinically oriented Anatomy , Williams & Wilkins co (latest edition) or alternatively R.L. Drake, W. Vogl, A.W.M. Mitchell: Grays Anatomy for students. Elsevier Churchill Livingstone (latest edition) Atlas: R. Putz, R. Pabst: Sobotta, Atlas of human anatomy, Vols I-II. Elsevier Urban&Fischer (latest edition) F.H. Netter: Atlas of human anatomy. Ciba-Geigy Pocket atlas: H. Feneis: Pocket Atlas of Human Anatomy. G. Thieme Publ., Stuttgart 4. edition preferred (5. edition possible) W.Kahle, H. Leonhardt, W. Platzer: Color atlas and textbook of human anatomy, Vols I-III, G. Thieme Publ., Stuttgart (latest edition).

Web material:

<http://www.bartleby.com/107/> H. Gray: Anatomy of the human body (1918)

<http://www.thieme.com/dyn/ebooklibrary/index.php> many books, free access from the computers in the internet domain of Oulu University. Handouts of the lectures and practicals.

Assessment methods and criteria:

Participation in the small group teaching of macroscopic anatomy and histology. The anatomy study module includes examinations in neuroanatomy and the final anatomy examination. Anatomy study module together with the study module of cell and developmental biology defines the grade of Anatomy.

Grading:

Anatomy together with cell and developmental biology make the Anatomy course, which is composed of the following grades: examination of cell and developmental biology 30 credit points, histology 10 credit points, neuroanatomy 10 credit points, examinations in small group sessions 30 credit points and final examination in anatomy 40 credit points, in sum 120 credit points graded to 0-5.

Person responsible:

Professor Petri Lehenkari (Professor Juha Tuukkanen, leave of absence)

Other information:

The course is the same for medical and dental students.

040201A-02: Anatomy, examination in neuroanatomy, 4 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 0,0 - 99,9

Opettajat: Tuukkanen, Kaarlo Juha Kullervo

Opintokohteen kielet: Finnish

ECTS Credits:

15 credits

Timing:

C1

Learning outcomes:

The learning outcomes are to understand the structure, development and function of the human body in order to manage the rest of the preclinical and clinical studies. The overall aim is to learn the structures essential for all medical doctors in diagnostics and treatment, especially for first aid. In addition the student will learn some common anatomical knowledge for understanding medical theory and research and for dealing with evidence based medicine.

Contents:

Systemic anatomy: blood, cardiovascular system and lymphatic system, thorax and respiratory system, abdomen and alimentary system, urinary system and integument, pelvis and genital systems, endocrine system, musculoskeletal system and nervous system and sensory organs. Regional anatomy and topographical anatomy, organ development and histology integrated with the previous titles. Examples of the applications of the anatomical knowledge in clinical cases.

Learning activities and teaching methods:

Lectures 82 h and 58 h small group exercise. Small group teaching will be provided in 2-4 h exercises. Each student will have 1-2 exercise sessions per week. In addition the dental students have at the 2nd term tooth development, histology and morphology given by the department of Dentistry. Anatomy study module includes an optional course of the anatomical dissection and another dissection course of a large mammal (pig).

Recommended or required reading:

K.L. Moore: Clinically oriented Anatomy, Williams & Wilkins co (latest edition) or alternatively R.L. Drake, W. Vogl, A.W.M. Mitchell: Grays Anatomy for students. Elsevier Churchill Livingstone (latest edition) Atlas: R. Putz, R. Pabst: Sobotta, Atlas of human anatomy, Vols I-II. Elsevier Urban&Fischer (latest edition) F.H. Netter: Atlas of human anatomy. Ciba-Geigy Pocket atlas: H. Feneis: Pocket Atlas of Human Anatomy. G. Thieme Publ., Stuttgart 4. edition preferred (5. edition possible) W.Kahle, H. Leonhardt, W. Platzer: Color atlas and textbook of human anatomy, Vols I-III, G. Thieme Publ., Stuttgart (latest edition).

Web material:

<http://www.bartleby.com/107/> H. Gray: Anatomy of the human body (1918)

<http://www.thieme.com/dyn/ebooklibrary/index.php> many books, free access from the computers in the internet domain of Oulu University. Handouts of the lectures and practicals.

Assessment methods and criteria:

Participation in the small group teaching of macroscopic anatomy and histology. The anatomy study module includes examinations in neuroanatomy and the final anatomy examination. Anatomy study module together with the study module of cell and developmental biology defines the grade of Anatomy.

Grading:

Anatomy together with cell and developmental biology make the Anatomy course, which is composed of the following grades: examination of cell and developmental biology 30 credit points, histology 10 credit points, neuroanatomy 10 credit points, examinations in small group sessions 30 credit points and final examination in anatomy 40 credit points, in sum 120 credit points graded to 0-5.

Person responsible:

Professor Petri Lehenkari (Professor Juha Tuukkanen, leave of absence)

Other information:

The course is the same for medical and dental students.

040201A-03: Anatomy, examinations in small group sessions, 6 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 0,0 - 99,9

Opettajat: Tuukkanen, Kaarlo Juha Kullervo

Opintokohteen kielet: Finnish

ECTS Credits:

15 credits

Timing:

C1

Learning outcomes:

The learning outcomes are to understand the structure, development and function of the human body in order to manage the rest of the preclinical and clinical studies. The overall aim is to learn the structures essential for all medical doctors in diagnostics and treatment, especially for first aid. In addition the student will learn some common anatomical knowledge for understanding medical theory and research and for dealing with evidence based medicine.

Contents:

Systemic anatomy: blood, cardiovascular system and lymphatic system, thorax and respiratory system, abdomen and alimentary system, urinary system and integument, pelvis and genital systems, endocrine system, musculoskeletal system and nervous system and sensory organs. Regional anatomy and topographical anatomy, organ development and histology integrated with the previous titles. Examples of the applications of the anatomical knowledge in clinical cases.

Learning activities and teaching methods:

Lectures 82 h and 58 h small group exercise. Small group teaching will be provided in 2-4 h exercises. Each student will have 1-2 exercise sessions per week. In addition the dental students have at the 2nd term tooth development, histology and morphology given by the department of Dentistry. Anatomy study module includes an optional course of the anatomical dissection and another dissection course of a large mammal (pig).

Recommended or required reading:

K.L. Moore: Clinically oriented Anatomy, Williams & Wilkins co (latest edition) or alternatively R.L. Drake, W. Vogl, A.W.M. Mitchell: Grays Anatomy for students. Elsevier Churchill Livingstone (latest edition) Atlas: R. Putz, R. Pabst: Sobotta, Atlas of human anatomy, Vols I-II. Elsevier Urban&Fischer (latest edition) F.H. Netter: Atlas of human anatomy. Ciba-Geigy Pocket atlas: H. Feneis: Pocket Atlas of Human Anatomy. G. Thieme Publ., Stuttgart 4. edition preferred (5. edition possible) W.Kahle, H. Leonhardt, W. Platzer: Color atlas and textbook of human anatomy, Vols I-III, G. Thieme Publ., Stuttgart (latest edition).

Web material:

<http://www.bartleby.com/107/> H. Gray: Anatomy of the human body (1918)

<http://www.thieme.com/dyn/ebooklibrary/index.php> many books, free access from the computers in the internet domain of Oulu University. Handouts of the lectures and practicals.

Assessment methods and criteria:

Participation in the small group teaching of macroscopic anatomy and histology. The anatomy study module includes examinations in neuroanatomy and the final anatomy examination. Anatomy study module together with the study module of cell and developmental biology defines the grade of Anatomy.

Grading:

Anatomy together with cell and developmental biology make the Anatomy course, which is composed of the following grades: examination of cell and developmental biology 30 credit points, histology 10 credit points, neuroanatomy 10 credit points, examinations in small group sessions 30 credit points and final examination in anatomy 40 credit points, in sum 120 credit points graded to 0-5.

Person responsible:

Professor Petri Lehenkari (Professor Juha Tuukkanen, leave of absence)

Other information:

The course is the same for medical and dental students.

040201A-04: Final examination in anatomy, 4 op

Voimassaolo: 01.08.2014 -

Opiskelumoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 0,0 - 99,9

Opettajat: Tuukkanen, Kaarlo Juha Kullervo

Opintokohteen kielet: Finnish

ECTS Credits:

15 credits

Timing:

C1

Learning outcomes:

The learning outcomes are to understand the structure, development and function of the human body in order to manage the rest of the preclinical and clinical studies. The overall aim is to learn the structures essential for all medical doctors in diagnostics and treatment, especially for first aid. In addition the student will learn some common anatomical knowledge for understanding medical theory and research and for dealing with evidence based medicine.

Contents:

Systemic anatomy: blood, cardiovascular system and lymphatic system, thorax and respiratory system, abdomen and alimentary system, urinary system and integument, pelvis and genital systems, endocrine system, musculoskeletal system and nervous system and sensory organs. Regional anatomy and topographical anatomy, organ development and histology integrated with the previous titles. Examples of the applications of the anatomical knowledge in clinical cases.

Learning activities and teaching methods:

Lectures 82 h and 58 h small group exercise. Small group teaching will be provided in 2-4 h exercises. Each student will have 1-2 exercise sessions per week. In addition the dental students have at the 2nd term tooth development, histology and morphology given by the department of Dentistry. Anatomy study module includes an optional course of the anatomical dissection and another dissection course of a large mammal (pig).

Recommended or required reading:

K.L. Moore: Clinically oriented Anatomy , Williams & Wilkins co (latest edition) or alternatively R.L. Drake, W. Vogl, A.W.M. Mitchell: Grays Anatomy for students. Elsevier Churchill Livingstone (latest edition) Atlas: R. Putz, R. Pabst: Sobotta, Atlas of human anatomy, Vols I-II. Elsevier Urban&Fischer (latest edition) F.H. Netter: Atlas of human anatomy. Ciba-Geigy Pocket atlas: H. Feneis: Pocket Atlas of Human Anatomy. G. Thieme Publ., Stuttgart 4. edition preferred (5. edition possible) W.Kahle, H. Leonhardt, W. Platzer: Color atlas and textbook of human anatomy, Vols I-III, G. Thieme Publ., Stuttgart (latest edition).

Web material:

<http://www.bartleby.com/107/> H. Gray: Anatomy of the human body (1918)

<http://www.thieme.com/dyn/ebooklibrary/index.php> many books, free access from the computers in the internet domain of Oulu University. Handouts of the lectures and practicals.

Assessment methods and criteria:

Participation in the small group teaching of macroscopic anatomy and histology. The anatomy study module includes examinations in neuroanatomy and the final anatomy examination. Anatomy study module together with the study module of cell and developmental biology defines the grade of Anatomy.

Grading:

Anatomy together with cell and developmental biology make the Anatomy course, which is composed of the following grades: examination of cell and developmental biology 30 credit points, histology 10 credit points, neuroanatomy 10 credit points, examinations in small group sessions 30 credit points and final examination in anatomy 40 credit points, in sum 120 credit points graded to 0-5.

Person responsible:

Professor Petri Lehenkari (Professor Juha Tuukkanen, leave of absence)

Other information:

The course is the same for medical and dental students.

040201A-06: Anatomy, 0 op

Voimassaolo: 01.08.2016 -

Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 0,0 - 99,9
Opettajat: Tuukkanen, Kaarlo Juha Kullervo
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

041116Y: Basics of public health, 3 op

Voimassaolo: 01.01.2016 -

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Aino-Kaisa Rantala

Opintokohteen kielet: Finnish

ECTS Credits:

3 ECTS cr/81 hours of work.

Language of instruction:

Finnish/English

Timing:

The course unit is held in the first year, autumn semester, C1.

Learning outcomes:

The student is able to identify the essential challenges of global and national public health and to understand the structure and function of Finnish health welfare systems. The student is aware of the importance of assessment and surveillance of health status and promotion among population, and as an expert in health care sector he/she is able to put it into practice.

Contents:

Lectures:

- Prevalence and incidence of major national diseases in different phase of life
- Lifestyle, behavior and health
- Environment and health
- Socio-economic factors and health
- Finnish health care system
- Assessment and surveillance of health status among population
- Health promotion
- Global public health

Tutorial sessions:

1. Scientific communication
2. Information retrieval and database
3. Evidence based information
4. Methods in public health science
5. Critical evaluation of research

Seminar day (student congress)

Population profile

Mode of delivery:

Face-to-face teaching.

Blended teaching

Learning activities and teaching methods:

Lectures, population profile, participation to small group working and student congress. As a part of small group working students will prepare the written seminar work and oral presentation for the congress. In Public health science, the examination which is independently performed in the Optima environment.

Target group:

The students from medicine and dentistry.

Prerequisites and co-requisites:

No.

Recommended optional programme components:

The course has to be completed during preclinical period of medical and dental studies. The course is linked to C4 – Epidemiology and Environmental health, C11 – General practitioner and public health as well as to Environment, Lifestyle and Health (ELH) track, Evidence Based Medicine (EBM) track and Professional development in medicine (LAK) track.

Recommended or required reading:

Recommended literature:

Kansanterveystiede. Kauhanen J, Erkkilä A, Korhonen M, Myllykangas M, Pekkanen J. Sanoma Pro Oy, 2013.

Assessment methods and criteria:

Participation to the group works and population profile. Participation to written seminar work, oral presentation and student congress. Examination.

Grading:

The course unit utilizes a numerical grading scale 1-5/fail.

Person responsible:

Postdoctoral researcher Aino Rantala.

Working life cooperation:

Yes, during the three day practical training in health centers.

040108A: General Pathology, 3,5 - 5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Basic Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karttunen, Tuomo Juhani

Opintokohteen kielet: Finnish

ECTS Credits:

5 ECTS credits

Language of instruction:

Finnish

Timing:

2nd year, autumn (C3/DC3)

Learning outcomes:

Upon completion the student should know the basic mechanisms of diseases (etiology and pathogenesis), their basic morphological, functional and clinical characteristics, and terminology related with diseases. The student should be able to recognize the most common macroscopical and microscopical features of diseases and be able to reason the relationship between these features of the diseases and their symptoms and other clinical manifestations.

Contents:

Cellular adaptation; cell and tissue injury; genetic and environmental causes of diseases; infections and immunological mechanisms in disease; inflammation; healing; disorders of fluid balance and circulation; basic pathology of neoplastic diseases; basics of medical post-mortem investigation.

Mode of delivery:

Face-to-face teaching.

Learning activities and teaching methods:

Lectures 25 hours, practicals 33 hours. Self study. Written examination 3 hours.

Target group:

Medical and dental students.

Prerequisites and co-requisites:

No.

Recommended optional programme components:

The course has to be completed during preclinical period of medical and dental studies.

Recommended or required reading:

Books: Cross SS: Underwood's Pathology, a clinical approach (6th ed. 2013; sections: Basic pathology and General disease mechanisms); or: Underwood JCE: General and systematic pathology (5th ed. 2009; sections: Basic

pathology and General disease mechanisms); or Kumar V. et al.: Robbins Basic Pathology, (9th ed. 2013), or Kumar V. et al.: Robbins Basic Pathology, (8th ed. 2007). Alternatives: Kumar V. et al.: Robbins and Cotran, Pathologic basis of disease (8th ed. 2010). In Finnish: Mäkinen M. et al. Patologia, Duodecim, 2012; Lecture handouts; Guidebook for microscopy practicals; Guidebook for autopsy practicals. Material associated with virtual pathology teaching program.

Web-based material (in Finnish): Please, see Optima

Assessment methods and criteria:

The course requirements include participation in the compulsory practicals and passing in the end-of-course examination.

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

Grading:

The evaluation scale is 1-5/fail.

Person responsible:

Professor Tuomo Karttunen

Working life cooperation:

No.

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040108A-01: General Pathology, obligatory studies, 2 - 2,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karttunen, Tuomo Juhani

Opintokohteen kielet: Finnish

ECTS Credits:

4,5 op

Timing:

C3 (DC3)

Learning outcomes:

Upon completion the student should know the basic mechanisms of diseases (etiology and pathogenesis), their basic morphological, functional and clinical characteristics, and terminology related with diseases. The student should be able to recognize the most common macroscopical and microscopical features of diseases and be able to reason the relationship between these features of the diseases and their symptoms and other clinical manifestations.

Contents:

Cellular adaptation; cell and tissue injury; genetic and environmental causes of diseases; infections and immunological mechanisms in disease; inflammation; healing; disorders of fluid balance and circulation; basic pathology of neoplastic diseases; basics of medical post-mortem investigation.

Learning activities and teaching methods:

Lectures 23 hours, practicals 33 hours. Self study. Written examination 3 hours.

Target group:

Medical and dental students.

Recommended or required reading:

Books: Underwood JCE: General and systematic pathology, 4th ed. (2004; sections: Basic pathology and General disease mechanisms); or Kumar V. et al.: Robbins Basic Pathology, 8th ed. (2007, or 7th ed. 2003). Alternatives: Kumar et al.: Robbins and Cotran, Pathologic basis of disease, 7th ed. (2005); Rubin & Strayer; Rubin's Pathology (2005). In Finnish: lecture handouts; Guidebook for microscopy practicals; Guidebook for autopsy practicals.

Web-based material (in Finnish): http://www.medicine oulu.fi/pato/opetus/YP_ATK_JOHDANTO.htm

Assessment methods and criteria:

The course requirements include participation in the compulsory practicals and passing in the end-of-course examination.

Grading:

The evaluation scale is 1-5/fail.

Person responsible:

Professor Ari Ristimäki

040108A-02: General Pathology, 0,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karttunen, Tuomo Juhani

Opintokohteen kielet: Finnish

ECTS Credits:

4,5 op

Timing:

C3 (DC3)

Learning outcomes:

Upon completion the student should know the basic mechanisms of diseases (etiology and pathogenesis), their basic morphological, functional and clinical characteristics, and terminology related with diseases. The student should be able to recognize the most common macroscopical and microscopical features of diseases and be able to reason the relationship between these features of the diseases and their symptoms and other clinical manifestations.

Contents:

Cellular adaptation; cell and tissue injury; genetic and environmental causes of diseases; infections and immunological mechanisms in disease; inflammation; healing; disorders of fluid balance and circulation; basic pathology of neoplastic diseases; basics of medical post-mortem investigation.

Learning activities and teaching methods:

Lectures 23 hours, practicals 33 hours. Self study. Written examination 3 hours.

Target group:

Medical and dental students.

Recommended or required reading:

Books: Underwood JCE: General and systematic pathology, 4th ed. (2004; sections: Basic pathology and General disease mechanisms); or Kumar V. et al.: Robbins Basic Pathology, 8th ed. (2007, or 7th ed. 2003). Alternatives: Kumar et al.: Robbins and Cotran, Pathologic basis of disease, 7th ed. (2005); Rubin & Strayer; Rubin's Pathology (2005). In Finnish: lecture handouts; Guidebook for microscopy practicals; Guidebook for autopsy practicals.

Web-based material (in Finnish): http://www.medicine oulu.fi/pato/opetus/YP_ATK_JOHDANTO.htm

Assessment methods and criteria:

The course requirements include participation in the compulsory practicals and passing in the end-of-course examination.

Grading:

The evaluation scale is 1-5/fail.

Person responsible:

Professor Ari Ristimäki

040108A-03: General Pathology, exam, 1 - 2 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karttunen, Tuomo Juhani

Opintokohteen kielet: Finnish

ECTS Credits:

4,5 op

Timing:

C3 (DC3)

Learning outcomes:

Upon completion the student should know the basic mechanisms of diseases (etiology and pathogenesis), their basic morphological, functional and clinical characteristics, and terminology related with diseases. The student should be able to recognize the most common macroscopical and microscopical features of diseases and be able to reason the relationship between these features of the diseases and their symptoms and other clinical manifestations.

Contents:

Cellular adaptation; cell and tissue injury; genetic and environmental causes of diseases; infections and immunological mechanisms in disease; inflammation; healing; disorders of fluid balance and circulation; basic pathology of neoplastic diseases; basics of medical post-mortem investigation.

Learning activities and teaching methods:

Lectures 23 hours, practicals 33 hours. Self study. Written examination 3 hours.

Target group:

Medical and dental students.

Recommended or required reading:

Books: Underwood JCE: General and systematic pathology, 4th ed. (2004; sections: Basic pathology and General disease mechanisms); or Kumar V. et al.: Robbins Basic Pathology, 8th ed. (2007, or 7th ed. 2003). Alternatives: Kumar et al.: Robbins and Cotran, Pathologic basis of disease, 7th ed. (2005); Rubin & Strayer; Rubin's Pathology (2005). In Finnish: lecture handouts; Guidebook for microscopy practicals; Guidebook for autopsy practicals.

Web-based material (in Finnish): http://www.medicine oulu.fi/pato/opetus/YP_ATK_JOHDANTO.htm

Assessment methods and criteria:

The course requirements include participation in the compulsory practicals and passing in the end-of-course examination.

Grading:

The evaluation scale is 1-5/fail.

Person responsible:

Professor Ari Ristimäki

041117Y: Introduction to practice of general medicine and dentistry, 2 op

Voimassaolo: 01.01.2016 -

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Markku Timonen

Opintokohteen kielet: Finnish

ECTS Credits:

2 ECTS / 46 hours of work.

Language of instruction:

Finnish

Timing:

The course unit is held in the first year, autumn semester, C1.

Learning outcomes:

After the study module students are able to identify the essential challenges of Finnish public health and to describe Finnish health and social welfare systems. Students are able to identify the factors that improve doctor-patient relationship and interprofessional collaboration.

Contents:

Organization of primary health care, doctor-patient relationship and interprofessional collaboration.

Mode of delivery:

Blended teaching.

Learning activities and teaching methods:

Lectures, practical period in health care center (3 days) and small group working.

Target group:

The students from medicine and dentistry.

Prerequisites and co-requisites:

No.

Recommended optional programme components:

The course has to be completed during preclinical period of medical and dental studies.

Recommended or required reading:

Recommended literature:

Enemmän yhdessä : moniammatillinen yhteistyö. Kaarina Isoherranen, Leena Rekola, Raija Nurminen.

Julkaistu: Helsinki : WSOY Oppimateriaalit, 2008.

Kumpusalo E, Ahto M, Eskola K, Keinänen-Kiukaanniemi S, Kosunen E, Kunnamo I, Lohi J (toim.): Yleislääketiede, Kustannus Oy Duodecim, Karisto Oy Hämeenlinna 2005, ss. 18-66, 105-115 ja 249-407.

Larivaara P. Potilas-lääkärisuhde. Kirjassa: Koskenvuo K (toim.). Lääkärin työ ja laki. Kustannus Oy Duodecim, Helsinki, 2000, s. 78-87.

Assessment methods and criteria:

Participation in the lectures, small group sessions and practical period in health care center.

Grading:

Accepted/fail.

Person responsible:

Professor Markku Timonen.

Working life cooperation:

Yes, during the three day practical training in health care centres.

Other information:

This course is linked with the "Communication" -track.

040103A: Medical Biochemistry and Molecular Biology, 14 - 15 op

Opiskelumuoto: Basic Studies

Laji: Course

Vastuuyksikkö: Faculty of Biochemistry and Molecular Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karppinen, Peppi Leena Elina

Opintokohteen kielet: Finnish

ECTS Credits:

15 ECTS credits /398 hours of work

Language of instruction:

Finnish

Timing:

The course unit is held in the spring semester.

Learning outcomes:

Aim of this course is to learn the function of the cells at the molecular level and recognize the basic biochemical compounds, reactions and the overall regulation of various metabolic pathways, especially those which are meaningful for Medicine. Students will also learn the basics of chemistry, molecular biology and common methodology used in molecular biology.

Contents:

General and inorganic chemistry: Basic concepts of chemistry; structure of atom; chemical bond; chemical formula, reaction and equations, stoichiometry; thermodynamics; phase equilibrium; reaction kinetics; chemical equilibrium; acid/base equilibrium; electrochemistry. Organic chemistry: nomenclature of organic compounds; carbon bonds; stereochemistry; properties and reactions of organic compounds; Structure of carbohydrates, amino acids, lipids and nucleic acids; metabolism of the carbohydrates, amino acids, lipids and nucleic acids; vitamins; minerals; porphyrins and bile pigments; prostaglandins; thromboxanes; leukotrienes; regulation of gene expression; recombinant DNA technology; stem cells; intracellular messengers; energy metabolism; hormones; hypoxia response of the cells; components and function of extracellular matrix.

Mode of delivery:

Lectures, tutorial teaching, laboratory work, web-based teaching, exams.

Learning activities and teaching methods:

Lectures 122 h; optional possibility to practice calculations; laboratory work including tutorial teaching and verbal evaluation 30 h; tutorial teaching 3t; theme day containing preliminary preparations 9 h; exams.

Target group:

Major students.

Prerequisites and co-requisites:

-

Recommended optional programme components:

-

Recommended or required reading:

Murray, R.K. (ed.): Harper's Illustrated Biochemistry, 29th edition, 2012.

R. Laitinen ja J. Toivonen: Yleinen ja epäorgaaninen kemia, soveltuvien osin. Otakustantamo. Harold Hart: Organic Chemistry. A short Course (soveltuvien osin), Houghton Mifflin Company, 6. (1983) or updated edition.

Assessment methods and criteria:

Medical biochemistry and molecular biology course includes 4 different intermediate exams; the first exam with principle of fail or accepted, and the rest exams will be graded (4 essays, 0-2.5 p/essay, points needed for passing 4.75). Final exam consist of 5 essays (0-10 p/essay). In final exams only 1 essay from 5 can have points lower than 4.5, otherwise exam will be failed. All the intermediate exams should be passed before participation in final exam.

Grading:

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

Person responsible:

Prof. Peppi Karppinen

Working life cooperation:

No

compuls10

040103A-01: Medical Biochemistry and Molecular Biology Intermediate exams 1, 3 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Faculty of Biochemistry and Molecular Medicine

Arvostelu: 0,0 - 99,9

Opettajat: Karppinen, Peppi Leena Elina

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040103A-02: Medical Biochemistry and Molecular Biology Intermediate exams 2, 2 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Faculty of Biochemistry and Molecular Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karppinen, Peppi Leena Elina

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040103A-03: Medical Biochemistry and Molecular Biology Intermediate exams 3, 3 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Faculty of Biochemistry and Molecular Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karppinen, Peppi Leena Elina

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040103A-04: Medical Biochemistry and Molecular Biology Intermediate exams 4, 3 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Faculty of Biochemistry and Molecular Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karppinen, Peppi Leena Elina

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040103A-05: Medical Biochemistry and Molecular Biology Final exams, 1 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Faculty of Biochemistry and Molecular Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karppinen, Peppi Leena Elina

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040103A-06: Medical Biochemistry and Molecular Biology Laboratory works, 1,5 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Faculty of Biochemistry and Molecular Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karppinen, Peppi Leena Elina

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040103A-07: Medical Biochemistry and Molecular Biology Theme day, 0,5 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Faculty of Biochemistry and Molecular Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karppinen, Peppi Leena Elina

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040103A-08: Medical Biochemistry and Molecular Biology Panel discussion, 0,5 op

Voimassaolo: 02.08.2011 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Faculty of Biochemistry and Molecular Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karppinen, Peppi Leena Elina

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040103A-09: Medical Biochemistry and Molecular Biology Patient, 0,5 op

Voimassaolo: 02.08.2011 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Faculty of Biochemistry and Molecular Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karppinen, Peppi Leena Elina

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040119A: Microbiology, 9,5 - 10 op

Voimassaolo: 01.01.2012 -

Opiskelumuoto: Basic Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Olli Vainio

Opintokohteen kielet: Finnish

Leikkaavuudet:

040118A Microbiology 9.5 op

ECTS Credits:

10 ECTS credits.

Language of instruction:

Finnish. Some lectures given in English.

Timing:

Autumn 2016, continues spring 2017.

The course unit is held in the second year, C3-C4.

Learning outcomes:

Upon completion of the study module, the student masters the basic knowledge of disease-causing microbes and parasites, their characteristics, diagnostic methods and prevention of infectious diseases.

The student also knows the structure and function of body's immune defense mechanisms and is able to use immunological methods in clinical diagnostics.

Contents:

Bacteriology, virology, mycology and parasitology:

Principles of clinically relevant microbes and parasites, clinical outcomes of infections, epidemiology and basic methods in laboratory diagnostics.

Immunology: basic concepts of the structure and function of the immune system. Pathomechanisms of immune disorders and basics of methods in immunodiagnostics.

Mode of delivery:

Mainly face-to-face teaching.

Learning activities and teaching methods:

Different methods of study are used during the course, mainly small group instruction and supporting lectures. In addition, course contains a considerable amount of independent work.

Target group:

Medical and dentistry students.

Prerequisites and co-requisites:

No.

Recommended optional programme components:

The course has to be completed during the first two years of medical and dental studies.

Recommended or required reading:

Study material for microbiology is announced later.

Recommended handbooks:

Hedman, Heikkinen, Huovinen, Järvinen, Meri, Vaara (toim.) Mikrobiologia and Infektiosairaudet. Osat 1 and 3, Duodecim 1. painos 2010 and 2011.

Immunology:

Abbas et al. Basic Immunology. Functions and Disorders of the Immune System. Elsevier (the latest edition).

Assessment methods and criteria:

Attendance to the compulsory small group sessions and indicated assignments.

Evaluation is based on written exams, more information in the beginning of the course.

Grading:

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

Person responsible:

Professor Olli Vainio, Kirsi Harila.

Working life cooperation:

No.

compuls13

040119A-01: Microbiology:preliminary exam, 0,5 op

Voimassaolo: 01.01.2012 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Olli Vainio

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040119A-02: Microbiology:laboratory works, 2 op

Voimassaolo: 01.01.2012 -

Opiskelumuoto: Basic Studies

Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Olli Vainio
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040119A-04: Microbiology: final exam, 7,5 op

Voimassaolo: 01.01.2012 -
Opiskelumuoto: Basic Studies
Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Olli Vainio
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040106A: Pharmacology and toxicology, 10 op

Opiskelumuoto: Basic Studies
Laji: Course
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Hakkola, Jukka Antti Tapio
Opintokohteen kielet: Finnish

Required proficiency level:
 10 ECTS Credits / 267 hours of work
ECTS Credits:
 10.0 ECTS
Language of instruction:
 Finnish

Timing:
 The course unit is held in the spring semester C4 / DC4

Learning outcomes:
 Upon completion of the course the student knows fundamentals of pharmacology and toxicology. The student is able to explain how body affects a specific drug after administration and physiologic effects of drugs and their mechanisms of action. The student is familiar with major drug classes and their role in the treatment of disease. Furthermore, the student understands the basis of individualized drug therapy. After passing the course, the student has ability to safe and efficient drug therapy.

Contents:
 The basic terminology of pharmacology: pharmacodynamics and pharmacokinetics. Systematic review of major classes of drugs: drugs affecting cardiovascular system, gastrointestinal drugs, drugs affecting the respiratory tract, drug treatment of pain, drugs used to treat endocrinological disorders, affecting the central nervous system, anesthetic agents, antimicrobial drugs, anticancer drugs. Details of key drugs in each class will be discussed including route of administration, drug effects, drug interactions and most common adverse effects. Toxicology: the basics of toxicology, the most common poisonings, tissue specific toxic responses in most important organs and fundamentals of risk assessment.

Mode of delivery:
 Face-to-face teaching

Learning activities and teaching methods:
 Lectures 74h / tutorials 20h / Self-study 173h. The tutorials are completed as small group work.

Target group:
 Medical and dental students. Also other students can be admitted to the course.

Prerequisites and co-requisites:

-

Recommended optional programme components:

-

Recommended or required reading:

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Ruskoaho H., Hakkola J., Huupponen R., MacDonald E., Moilanen E., Pasanen M., Scheinin M., Vähäkangas K (eds.) Lääketieteellinen farmakologia ja toksikologia (Kustannus Oy Duodecim) (latest edition) or equivalent textbook.

Assessment methods and criteria:

At the beginning of the course students study independently for a test evaluating the required level of knowledge of pharmacokinetics and pharmacodynamics. In addition, two essay examinations (worth one-third of the final grade) and final exam (worth two-thirds of the final grade) are included. The tutorials are compulsory.

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

Grading:

The evaluation scale is 1-5. In the numerical scale zero stands for a fail.

Person responsible:

Professor Risto Kerkelä

Working life cooperation:

No

compuls11

040106A-01: Pharmacology and toxicology, tutorials, 2 op

Voimassaolo: 01.08.2013 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Hakkola, Jukka Antti Tapio

Opintokohteen kielet: Finnish

ECTS Credits:

10.0 p

Language of instruction:

Finnish

Timing:

C4 / DC4

Learning outcomes:

The student will learn fundamentals of pharmacology and toxicology. After passing the course the student should know how the *body* affects a specific drug after administration and physiologic effects of drugs and their mechanisms of action. The student should get familiar with major drug classes and their role in the treatment of disease. Furthermore, the student understands the basis of individualized drug therapy. After passing the course, the student should have ability to safe and efficient drug therapy.

Contents:

The basic terminology of pharmacology: pharmacodynamics and pharmacokinetics. Systematic review of major classes of drugs: drugs affecting cardiovascular system, gastrointestinal drugs, drugs affecting the respiratory tract, drug treatment of pain, drugs used to treat endocrinological disorders, affecting the central nervous system, anesthetic agents, antimicrobial drugs, anticancer drugs. Details of key drugs in each class will be discussed including route of administration, drug effects, drug interactions and most common adverse effects. Toxicology: the basics of toxicology, the most common poisonings, tissue specific toxic responses in most important organs and fundamentals of risk assessment.

Learning activities and teaching methods:

Lectures (77 h) and tutorials (compulsory, 18 h). In tutorials, students discuss with tutor about the topics of lectures. A web-based exam and three written exams.

Recommended or required reading:

Olavi Pelkonen and Heikki Ruskoaho (eds.) Lääketieteellinen farmakologia ja toksikologia (Kustannus Oy Duodecim) (latest edition) or equivalent textbook.

Assessment methods and criteria:

Lectures, tutorials, web-based exam, written examination.

Grading:

The evaluation scale is 5-1/fail

Person responsible:

Professor Olavi Pelkonen (olavi.pelkonen@oulu.fi) and senior lecturer Jukka Hakkola (jukka.hakkola@oulu.fi).

Other information:

At the beginning of the course students study independently for a test evaluating the required level of knowledge of pharmacokinetics and pharmacodynamics. In addition, two essay examinations (worth one-third of the final grade) and final exam (worth two-thirds of the final grade) are included.

040106A-02: Pharmacology and toxicology, A web-based exam, 1 op

Voimassaolo: 01.08.2013 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Hakkola, Jukka Antti Tapio

Opintokohteen kielet: Finnish

ECTS Credits:

10.0 p

Language of instruction:

Finnish

Timing:

C4 / DC4

Learning outcomes:

The student will learn fundamentals of pharmacology and toxicology. After passing the course the student should know how the *body* affects a specific drug after administration and physiologic effects of drugs and their mechanisms of action. The student should get familiar with major drug classes and their role in the treatment of disease. Furthermore, the student understands the basis of individualized drug therapy. After passing the course, the student should have ability to safe and efficient drug therapy.

Contents:

The basic terminology of pharmacology: pharmacodynamics and pharmacokinetics. Systematic review of major classes of drugs: drugs affecting cardiovascular system, gastrointestinal drugs, drugs affecting the respiratory tract, drug treatment of pain, drugs used to treat endocrinological disorders, affecting the central nervous system, anesthetic agents, antimicrobial drugs, anticancer drugs. Details of key drugs in each class will be discussed including route of administration, drug effects, drug interactions and most common adverse effects. Toxicology: the basics of toxicology, the most common poisonings, tissue specific toxic responses in most important organs and fundamentals of risk assessment.

Learning activities and teaching methods:

Lectures (77 h) and tutorials (compulsory, 18 h). In tutorials, students discuss with tutor about the topics of lectures. A web-based exam and three written exams.

Recommended or required reading:

Olavi Pelkonen and Heikki Ruskoaho (eds.) Lääketieteellinen farmakologia ja toksikologia (Kustannus Oy Duodecim) (latest edition) or equivalent textbook.

Assessment methods and criteria:

Lectures, tutorials, web-based exam, written examination.

Grading:

The evaluation scale is 5-1/fail

Person responsible:

Professor Olavi Pelkonen (olavi.pelkonen@oulu.fi) and senior lecturer Jukka Hakkola (jukka.hakkola@oulu.fi).

Other information:

At the beginning of the course students study independently for a test evaluating the required level of knowledge of pharmacokinetics and pharmacodynamics. In addition, two essay examinations (worth one-third of the final grade) and final exam (worth two-thirds of the final grade) are included.

040106A-03: Pharmacology and toxicology, written exam (part 1), 3 op

Voimassaolo: 01.08.2013 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Hakkola, Jukka Antti Tapio

Opintokohteen kielet: Finnish

ECTS Credits:

10.0 p

Language of instruction:

Finnish

Timing:

C4 / DC4

Learning outcomes:

The student will learn fundamentals of pharmacology and toxicology. After passing the course the student should know how the *body* affects a specific drug after administration and physiologic effects of drugs and their mechanisms of action. The student should get familiar with major drug classes and their role in the treatment of disease. Furthermore, the student understands the basis of individualized drug therapy. After passing the course, the student should have ability to safe and efficient drug therapy.

Contents:

The basic terminology of pharmacology: pharmacodynamics and pharmacokinetics. Systematic review of major classes of drugs: drugs affecting cardiovascular system, gastrointestinal drugs, drugs affecting the respiratory tract, drug treatment of pain, drugs used to treat endocrinological disorders, affecting the central nervous system, anesthetic agents, antimicrobial drugs, anticancer drugs. Details of key drugs in each class will be discussed including route of administration, drug effects, drug interactions and most common adverse effects. Toxicology: the basics of toxicology, the most common poisonings, tissue specific toxic responses in most important organs and fundamentals of risk assessment.

Learning activities and teaching methods:

Lectures (77 h) and tutorials (compulsory, 18 h). In tutorials, students discuss with tutor about the topics of lectures. A web-based exam and three written exams.

Recommended or required reading:

Olavi Pelkonen and Heikki Ruskoaho (eds.) Lääketieteellinen farmakologia ja toksikologia (Kustannus Oy Duodecim) (latest edition) or equivalent textbook.

Assessment methods and criteria:

Lectures, tutorials, web-based exam, written examination.

Grading:

The evaluation scale is 5-1/fail

Person responsible:

Professor Olavi Pelkonen (olavi.pelkonen@oulu.fi) and senior lecturer Jukka Hakkola (jukka.hakkola@oulu.fi).

Other information:

At the beginning of the course students study independently for a test evaluating the required level of knowledge of pharmacokinetics and pharmacodynamics. In addition, two essay examinations (worth one-third of the final grade) and final exam (worth two-thirds of the final grade) are included.

040106A-04: Pharmacology and toxicology, written exam (part 2), 3 op

Voimassaolo: 01.08.2013 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Hakkola, Jukka Antti Tapio

Opintokohteen kielet: Finnish

ECTS Credits:

10.0 p

Language of instruction:

Finnish

Timing:

C4 / DC4

Learning outcomes:

The student will learn fundamentals of pharmacology and toxicology. After passing the course the student should know how the *body* affects a specific drug after administration and physiologic effects of drugs and their mechanisms of action. The student should get familiar with major drug classes and their role in the treatment of disease. Furthermore, the student understands the basis of individualized drug therapy. After passing the course, the student should have ability to safe and efficient drug therapy.

Contents:

The basic terminology of pharmacology: pharmacodynamics and pharmacokinetics. Systematic review of major classes of drugs: drugs affecting cardiovascular system, gastrointestinal drugs, drugs affecting the respiratory tract, drug treatment of pain, drugs used to treat endocrinological disorders, affecting the central nervous system, anesthetic agents, antimicrobial drugs, anticancer drugs. Details of key drugs in each class will be discussed including route of administration, drug effects, drug interactions and most common adverse effects. Toxicology: the basics of toxicology, the most common poisonings, tissue specific toxic responses in most important organs and fundamentals of risk assessment.

Learning activities and teaching methods:

Lectures (77 h) and tutorials (compulsory, 18 h). In tutorials, students discuss with tutor about the topics of lectures. A web-based exam and three written exams.

Recommended or required reading:

Olavi Pelkonen and Heikki Ruskoaho (eds.) Lääketieteellinen farmakologia ja toksikologia (Kustannus Oy Duodecim) (latest edition) or equivalent textbook.

Assessment methods and criteria:

Lectures, tutorials, web-based exam, written examination.

Grading:

The evaluation scale is 5-1/fail

Person responsible:

Professor Olavi Pelkonen (olavi.pelkonen@oulu.fi) and senior lecturer Jukka Hakkola (jukka.hakkola@oulu.fi).

Other information:

At the beginning of the course students study independently for a test evaluating the required level of knowledge of pharmacokinetics and pharmacodynamics. In addition, two essay examinations (worth one-third of the final grade) and final exam (worth two-thirds of the final grade) are included.

040106A-05: Pharmacology and toxicology, final exam, 1 op

Voimassaolo: 01.08.2013 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Hakkola, Jukka Antti Tapio

Opintokohteen kielet: Finnish

ECTS Credits:

10.0 p

Language of instruction:

Finnish

Timing:

C4 / DC4

Learning outcomes:

The student will learn fundamentals of pharmacology and toxicology. After passing the course the student should know how the *body* affects a specific drug after administration and physiologic effects of drugs and their mechanisms of action. The student should get familiar with major drug classes and their role in the treatment of disease. Furthermore, the student understands the basis of individualized drug therapy. After passing the course, the student should have ability to safe and efficient drug therapy.

Contents:

The basic terminology of pharmacology: pharmacodynamics and pharmacokinetics. Systematic review of major classes of drugs: drugs affecting cardiovascular system, gastrointestinal drugs, drugs affecting the respiratory tract, drug treatment of pain, drugs used to treat endocrinological disorders, affecting the central nervous system, anesthetic agents, antimicrobial drugs, anticancer drugs. Details of key drugs in each class will be discussed including route of administration, drug effects, drug interactions and most common adverse effects. Toxicology: the basics of toxicology, the most common poisonings, tissue specific toxic responses in most important organs and fundamentals of risk assessment.

Learning activities and teaching methods:

Lectures (77 h) and tutorials (compulsory, 18 h). In tutorials, students discuss with tutor about the topics of lectures. A web-based exam and three written exams.

Recommended or required reading:

Olavi Pelkonen and Heikki Ruskoaho (eds.) Lääketieteellinen farmakologia ja toksikologia (Kustannus Oy Duodecim) (latest edition) or equivalent textbook.

Assessment methods and criteria:

Lectures, tutorials, web-based exam, written examination.

Grading:

The evaluation scale is 5-1/fail

Person responsible:

Professor Olavi Pelkonen (olavi.pelkonen@oulu.fi) and senior lecturer Jukka Hakkola (jukka.hakkola@oulu.fi).

Other information:

At the beginning of the course students study independently for a test evaluating the required level of knowledge of pharmacokinetics and pharmacodynamics. In addition, two essay examinations (worth one-third of the final grade) and final exam (worth two-thirds of the final grade) are included.

040112A: Physiology, 15 op

Voimassaolo: 01.08.2005 -

Opiskelumuoto: Basic Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Vuolteenaho, Olli Jaakko Tuomas

Opintokohteen kielet: Finnish

ECTS Credits:

15 ECTS credits /402 hours of work

Language of instruction:

Finnish. Some lectures, a practical and some of the term papers in English.

Timing:

The course unit is held in the autumn semester. The course must be completed during the first two years of the Medical School curriculum

Learning outcomes:

After completion of the course the student:

- knows the principles of the function, regulation, and interrelations of the cells, tissues and organ systems of the healthy human being, as required for independent work as a physician or dentist
 - can evaluate the knowledge and apply it for investigations of clinical physiological problems and mechanisms of diseases
 - can follow and evaluate the development of physiology as a science, and maintain and improve knowledge in it
 - can apply knowledge in physiology for acquiring, evaluating and reporting scientific medical and dental information
- After reaching the learning aims the student has sufficient knowledge and skills in physiology for studies leading to the degrees of Licentiate of Medicine and Licentiate of Dentistry, and for continuous learning.

Contents:

1. Cell physiology
2. Fundamentals of Biophysics
3. Organ physiology
4. Physiological regulation and integrative physiology
5. Applied physiology

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

Guidance and tutorial (3 h), lectures (106 h), practicals (38 h), term paper (2 h), interim and final examinations (8 h), independent study (245 h).

Target group:

Second year medical and dental students.

Prerequisites and co-requisites:

The student should have completed the courses of Anatomy, Cell Biology, and Medical Biochemistry & Molecular Biology.

Recommended optional programme components:

-

Recommended or required reading:

- Ganong's Review of Medical Physiology (most recent edition).
 - Practicals Textbook (in Finnish): Fysiologian harjoitustyöt (Oulun yliopiston oppimateriaalia-sarja, Lääketiede D, most recent edition).
 - Lecture notes can be found in Optima Environment (<http://optima.oulu.fi>).
- The availability of the textbook in the library can be checked [here](#).

Assessment methods and criteria:

At the beginning of the course there is an examination on the subject of the practicals, which has to be passed. In the middle of the course there is an interim examination on the course contents 1-3, and at the end the final examination. The student has to obtain one third of the maximum points to pass these examinations. Detailed requirements can be found during the course period in the Optima Environment (<http://optima.oulu.fi>).

Grading:

The course unit utilizes a numerical grading scale 1-5. Zero stands for a fail.

Person responsible:

Professor Olli Vuolteenaho

Working life cooperation:

No

compuls 12

040112A-01: Physiology, small group teaching, 2,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 0,0 - 99,9

Opettajat: Vuolteenaho, Olli Jaakko Tuomas

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040112A-011: Physiology, biophysics small group teaching, 0,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 0,0 - 99,9

Opettajat: Vuolteenaho, Olli Jaakko Tuomas

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040112A-021: Physiology, practicals entry examination, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Vuolteenaho, Olli Jaakko Tuomas

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040112A-02: Physiology, term paper, 2 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 0,0 - 99,9

Opettajat: Vuolteenaho, Olli Jaakko Tuomas

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040112A-03: Physiology, mid-term examination, 3 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 0,0 - 99,9

Opettajat: Vuolteenaho, Olli Jaakko Tuomas

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040112A-04: Physiology, final examination, 6 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 0,0 - 99,9

Opettajat: Vuolteenaho, Olli Jaakko Tuomas

Opintokohteen kielet: Finnish

Leikkaavuudet:

040102A-10 Final exam 0.0 op

Ei opintojaksokuvauksia.

080601A: Anaesthesiology I, 3 - 4 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Alahuhta, Seppo Matias

Opintokohteen kielet: Finnish

ECTS Credits:

4 ECTS/ 106 hours of work

Language of instruction:

Finnish.

Timing:

During third year, C 5-C 6

Learning outcomes:

The students recognize cardiac arrest and can resuscitate. He or she knows what belongs to advanced life support both in adults and children. The student knows how to treat the patient after successful resuscitation. He or she recognizes life threatening cardiac arrhythmias. The student knows how to examine the patient pre-operatively. He or she knows the basics of fluid and nutritional therapy. The student knows the basics of infusion therapy and knows how to manage the airway. He or she knows the local anaesthetics and the techniques of regional anaesthesia. The student understands the basics of general anaesthesia and monitoring during the anaesthesia. He or she is able to recognize the unstable patient and knows how to start the treatment.

Contents:

Theoretical part: resuscitation and first aid, pre-operative examination and treatment, anaesthetic drugs and anaesthesia methods, regional anaesthesia, monitoring of the patient, nutrition and infusion therapy.

Small group teaching: cardio pulmonary resuscitation, managing the airway, basics of fluid therapy, managing of critically ill patients, practical duty in operating theatres.

Mode of delivery:

Blended teaching

Learning activities and teaching methods:

Lectures, theme days, practicing in small groups, practicing in operation theatres, web exams (Optima) and written examination.

Target group:

For the students of the third year.

Prerequisites and co-requisites:

Preclinical studies completed

Recommended optional programme components:

The course is performed simultaneously with other third's year's courses.

Recommended or required reading:

Seppo Alahuhta, Tero Ala-Kokko, Kai Kiviluoma, Juha Perttilä, Esko Ruokonen, Tom Silfvast (eds.).

Peruselintoimintojen häiriöt. Kustannus Oy Duodecim, (uusin painos).

Niemi-Murola, Jalonen, Junttila, Metsävainio, Pöyhiä. 2012. Anestesiologian ja tehohoidon perusteet, Kustannus Oy Duodecim.

Mäkijärvi M, Harjola V-P, Päivä H, Valli J, Vaula E. Akuuttihoito-opas (uusin painos), Kustannus Oy Duodecim

Material handed out during the course.

Assessment methods and criteria:

Taking part into the group teaching events, theme days and practicing in operation theatres. Web exam of resuscitation. Written end examination.

Grading:

Internet examination evaluated pass/fail

Familiarize with pre-course material and good knowledge of content. A teacher will decide of acceptance of performance and possible extra work.

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

Person responsible:

Professor Seppo Alahuhta

Working life cooperation:

Yes (practical training in the operating room)

Other information:

No other information

compuls15

080601A-04: Anaesthesiology, intubations, 2,5 op

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080601A-07: Anaesthesiology, Resuscitation and vital functions, 1 op

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Alahuhta, Seppo Matias

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080601A-08: Anaesthesiology, Optima CPR Exam, 0,5 op**Opiskelumuoto:** Intermediate Studies**Laji:** Partial credit**Vastuuyksikkö:** Medicine**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Alahuhta, Seppo Matias**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

080601A-09: Anaesthesiology final examination, 0 op**Voimassaolo:** 01.08.2015 -**Opiskelumuoto:** Intermediate Studies**Laji:** Partial credit**Vastuuyksikkö:** Medicine**Arvostelu:** 1 - 5, pass, fail**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

080613A: Anesthesiology II, 3 op**Voimassaolo:** 01.08.2013 -**Opiskelumuoto:** Intermediate Studies**Laji:** Course**Vastuuyksikkö:** Medicine**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Alahuhta, Seppo Matias**Opintokohteen kielet:** Finnish**ECTS Credits:**

3 ECTS

Language of instruction:

Finnish

Timing:

Fourth year, C 7- C 8

Learning outcomes:

Upon completion of the course the student:

- has theoretical and practical knowledge of pain treatment both in acute and chronic pain
 - is able to explain the social and economical meaning of the pain
 - understand basic mechanism of the pain and pain control and can plan the treatment of the pain patient
 - knows how to treat pain among special patient groups (e.g. children and elderly people)
 - can consultate the multidisciplinary professional team for diagnostics and treatment of chronic pain patient
- is able to recognize and start treatment in disorders of vital signs
masters fluid and nutrition disorders in-depth.

Contents:

Basics of pain mechanisms and types of pain. Diagnostics of chronic pain. Principles of pain treatment in acute and chronic pain. Special pain treatment methods with medicines, central blocks and combination therapy.

The student will deepen his or her knowledge on fluid and nutritional therapy.

Mode of delivery:

Blended teaching

Learning activities and teaching methods:

Variable teaching and learning methods:

Lectures 6h

Practicing in small groups 2 h

Other compulsory teaching

Exam

Target group:

For the students of the fourth year.

Prerequisites and co-requisites:

The required prerequisite is the completion of the following course prior to enrolling for the course unit:

Anesthesiology 1

Recommended optional programme components:

No

Recommended or required reading:

Textbooks:

- *Seppo Alahuhta, Tero Ala-Kokko, Kai Kiviluoma, Juha Perttilä, Esko Ruokonen, Tom Silfvast (toim.)*

Peruselintoimintojen häiriöt. Kustannus Oy Duodecim, 2013

- Niemi-Murola, Jalonen, Junttila, Metsävainio, Pöyhiä. 2012. Anestesiologian ja tehohoidon perusteet, Kustannus Oy Duodecim.

- Mäkijärvi M, Harjola V-P, Päivä H, Valli J, Vaula E. Akuuttihoito-opas (2012), Kustannus Oy Duodecim.

- Kalso, Haanpää, Vainio. 2009. Kipu. Kustannus Oy Duodecim.

Guides:

- Neuropaattisen kivun hoito-opas:

<http://www.suomenkivuntutkimusyhdistys.fi/system/files/files/neuropaattisen%20kivun%20hoito-opas.pdf>

- Syöpäkivunhoito-opas <http://www.suomenkivuntutkimusyhdistys.fi/system/files/files/Sy%C3%B6p%C3%A4kivunhoito-opas.pdf>

- Kroonisen kivun hoito-opas http://www.suomenkivuntutkimusyhdistys.fi/system/files/files/Kroonisen%20kivun%20hoito-opas_final.pdf

Material handed out in course.

Recommended textbook:

Missä kalat syövät puiden lehtiä; Anneli Vainio Kustannus Oy Duodecim. 2008

Assessment methods and criteria:

Taking part into teaching events and continuous assessment (learning diary and examinations).

Grading:

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

Person responsible:

Professor Seppo Alahuhta

Working life cooperation:

No

Other information:

No other information

Compulsory

080613A-01: Small group classes, 0,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Alahuhta, Seppo Matias
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080613A-02: Theme day, 2 op

Voimassaolo: 01.08.2014 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Alahuhta, Seppo Matias
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080613A-03: Optima examination, 0,5 op

Voimassaolo: 01.08.2014 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Alahuhta, Seppo Matias
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080613A-04: Anaesthesiology Examination, 1 op

Voimassaolo: 01.08.2014 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Alahuhta, Seppo Matias
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080503A: Child psychiatry, 3 op

Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Ebeling, Hanna Elina
Opintokohteen kielet: Finnish

ECTS Credits:

3,0 ECTS / 84 hours of work

Language of instruction:

Finnish

Timing:

C 9 and C 10

Half of the students C9 and the other half C10

Learning outcomes:

The student who has passed the course of Child Psychiatry understands the normal psychological development of children, developmental risks and protective factors, and he/she is able to distinguish mental disorders in different developmental phases. He is acquainted with the child psychiatric health care organization, legislation and is able to diagnose and organize treatment of the most common child psychiatric disorders. The students will have readiness to work as a physician in health care centers and as a junior trainee in hospitals.

Contents:

1) Lectures:

- the diagnostics and treatment of the most common child psychiatric disorders and child psychiatric health care organization

- prevention of child psychiatric disorders, risks and protective factors

2) Special themes:

- sexual abuse and child molestation

- and legislation

- intoxications: drugs and alcohol

3) Own patients:

- getting acquainted with the own patient case, examination and treatment

- participating to the discussions of diagnostics and treatment

- getting acquainted with the child psychiatric treatment

4) Out-patient teaching:

- following of two out-patient sessions, discussion of the examination

5) Problem based learning:

- solving and representing the example patient cases in the study group

- getting acquainted with the evidence based practices

- important legislation in child psychiatry

Mode of delivery:

Lectures

Special theme days

Small group teaching: Own patients, Out-patient teaching and Problem based learning.

Learning activities and teaching methods:

Lectures 15h

Theme-day 6h

Part of the pediatric theme-day 1h

Small group teaching:

Outpatient sessions 4h

Own patient

- discussions 5h

- examining 6h

Problem based learning:

- guided teaching 4h

The admission exam 1h

The Final exam 2 h

Self-study 40h

Target group:

Medical Students

Prerequisites and co-requisites:

The prerequisites for the course unit are previous studies (C1-8 course units).

Recommended optional programme components:

No alternative course units.

Simultaneously with Pediatrics 080502A.

Recommended or required reading:

Kumpulainen K, Aronen E, Ebeling H, Laukkanen E, Marttunen M, Puura K, Sourander A. Lastenpsykiatria ja nuorisopsykiatria. Kustannus Oy Duodecim, 2016.

or

Barker P: Basic child psychiatry. Oxford, Blackwell Science, last edition.

Assessment methods and criteria:

The assessment of the course unit is based on the learning outcomes of the course unit.

The admission exam:

Required literature: Text book, part 1: Psychological development of the child and adolescent. The admission exam is either a web-based multiple choice test or viva voce.. Exam is required to be passed.

Attending to all compulsory teaching.

The final exam (Requirements: text book, lectures and group teaching material) is evaluated from 0 to 10 points (the approval limit is 5 points), grading scale pass/ fail.

Grading:

The course unit utilizes verbal grading scale pass/ fail.

The course is approved when all exams are approved and the student has attended to all compulsory teaching,

Person responsible:

Professor Hanna Ebeling

Working life cooperation:

No.

compuls24

080503A-01: Child psychiatry,entering exam, 0 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Ebeling, Hanna Elina

Opintokohteen kielet: Finnish

ECTS Credits:

3.0 op

Timing:

C 9-10

Learning outcomes:

The student who has passed the course of Child Psychiatry has got acquainted with the psychological development and mental health of children, with the child psychiatric health care organisation, with the legislation and with the diagnostics and treatment of the most usual child psychiatric disorders and has got readiness to work as a physician in the health center and as a junior trainee in the hospital.

Learning activities and teaching methods:

1) Lectures:

- the lectures consist of the main legislation, the diagnostics and treatment of the most usual child psychiatric disorders and the child psychiatric health care organisation

2) Special themes:

- sexual abuse and child molestation

- intoxications: drugs and alcohol

3) In-patient teaching:

- getting acquainted with the child psychiatric in-patient treatment by participating to the representation of the in-patient department and to the representation of the patient cases

- getting acquainted with the own patient case and present the case in the study group

- participating to the presentation of the patient cases of the other students in the study group

4) Out-patient teaching:

- following of the two out-patient sessions

5) Problem based learning:

- solving and representing the example patient cases in the study group

- getting acquainted with the evidence based practices

Recommended or required reading:

Moilanen I, Räsänen E, Tamminen T, Almqvist F, Piha J, Kumpulainen K. Lasten- ja nuorisopsykiatria. Kustannus Oy Duodecim, 2004, 3. p.

or

Barker P: Basic child psychiatry. Oxford, Blackwell Science, last edition

Assessment methods and criteria:

- Admission exam: textbook
- Final exam: textbook, lectures and study group teachings
- Objective structured clinical examination at the end of the spring term including all courses of the fifth academic year

Grading:

- The admission exam is evaluated from 0 to 25 points (the approval limit is 15 points)
- The final exam is evaluated from 0 to 10 points (the approval limit is 5 points)
- The course is approved when all exams are approved and the student has attended to all compulsory teaching,

Person responsible:

Professor Hanna Ebeling (hanna.ebeling@ppshp.fi)

080503A-02: Child psychiatry, final exam, 0 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Ebeling, Hanna Elina

Opintokohteen kielet: Finnish

ECTS Credits:

3.0 op

Timing:

C 9-10

Learning outcomes:

The student who has passed the course of Child Psychiatry has got acquainted with the psychological development and mental health of children, with the child psychiatric health care organisation, with the legislation and with the diagnostics and treatment of the most usual child psychiatric disorders and has got readiness to work as a physician in the health center and as a junior trainee in the hospital.

Learning activities and teaching methods:

1) Lectures:

- the lectures consist of the main legislation, the diagnostics and treatment of the most usual child psychiatric disorders and the child psychiatric health care organisation

2) Special themes:

- sexual abuse and child molestation
- intoxications: drugs and alcohol

3) In-patient teaching:

- getting acquainted with the child psychiatric in-patient treatment by participating to the representation of the in-patient department and to the representation of the patient cases
- getting acquainted with the own patient case and present the case in the study group
- participating to the presentation of the patient cases of the other students in the study group

4) Out-patient teaching:

- following of the two out-patient sessions

5) Problem based learning:

- solving and representing the example patient cases in the study group
- getting acquainted with the evidence based practices

Recommended or required reading:

Moilanen I, Räsänen E, Tamminen T, Almqvist F, Piha J, Kumpulainen K. Lasten- ja nuorisopsykiatria. Kustannus Oy Duodecim, 2004, 3. p.

or

Barker P: Basic child psychiatry. Oxford, Blackwell Science, last edition

Assessment methods and criteria:

- Admission exam: textbook
- Final exam: textbook, lectures and study group teachings
- Objective structured clinical examination at the end of the spring term including all courses of the fifth academic year

Grading:

- The admission exam is evaluated from 0 to 25 points (the approval limit is 15 points)
- The final exam is evaluated from 0 to 10 points (the approval limit is 5 points)
- The course is approved when all exams are approved and the student has attended to all compulsory teaching,

Person responsible:

Professor Hanna Ebeling (hanna.ebeling@ppshp.fi)

080503A-03: Child psychiatry, logbook, 0 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Ebeling, Hanna Elina

Opintokohteen kielet: Finnish

ECTS Credits:

3.0 op

Timing:

C 9-10

Learning outcomes:

The student who has passed the course of Child Psychiatry has got acquainted with the psychological development and mental health of children, with the child psychiatric health care organisation, with the legislation and with the diagnostics and treatment of the most usual child psychiatric disorders and has got readiness to work as a physician in the health center and as a junior trainee in the hospital.

Learning activities and teaching methods:

1) Lectures:

- the lectures consist of the main legislation, the diagnostics and treatment of the most usual child psychiatric disorders and the child psychiatric health care organisation

2) Special themes:

- sexual abuse and child molestation
- intoxications: drugs and alcohol

3) In-patient teaching:

- getting acquainted with the child psychiatric in-patient treatment by participating to the representation of the in-patient department and to the representation of the patient cases
- getting acquainted with the own patient case and present the case in the study group
- participating to the presentation of the patient cases of the other students in the study group

4) Out-patient teaching:

- following of the two out-patient sessions

5) Problem based learning:

- solving and representing the example patient cases in the study group
- getting acquainted with the evidence based practices

Recommended or required reading:

Moilanen I, Räsänen E, Tamminen T, Almqvist F, Piha J, Kumpulainen K. Lasten- ja nuorisopsykiatria. Kustannus Oy Duodecim, 2004, 3. p.

or

Barker P: Basic child psychiatry. Oxford, Blackwell Science, last edition

Assessment methods and criteria:

- Admission exam: textbook
- Final exam: textbook, lectures and study group teachings
- Objective structured clinical examination at the end of the spring term including all courses of the fifth academic year

Grading:

- The admission exam is evaluated from 0 to 25 points (the approval limit is 15 points)
- The final exam is evaluated from 0 to 10 points (the approval limit is 5 points)
- The course is approved when all exams are approved and the student has attended to all compulsory teaching,

Person responsible:

Professor Hanna Ebeling (hanna.ebeling@ppshp.fi)

040038Y: Clinical Anatomy, 3rd period, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Tuukkanen, Kaarlo Juha Kullervo

Opintokohteen kielet: Finnish

ECTS Credits:

1 ECTS credits / 25-30 hours of work

Language of instruction:

Finnish

Timing:

The course is organized during spring semester of third year. It is recommended to complete the course after the radiology course.

Learning outcomes:

Upon completion of the course, the student will be able to use clinical viewer of computer tomography and magnetic resonance image stacks. Selected anatomical structures are analyzed as they are visualized clinically in 3D.

Contents:

The basic contents are a lecture and introductory exercises, which are conducted with clinical viewer software. The 3D clinical CT and MR image stacks are studied with help of anatomical books, anatomical models and other sources.

Mode of delivery:

After the lecture the student performs the introductory exercises with the image viewer and after that starts the electronic examination in Optima portal.

Learning activities and teaching methods:

Lectures 2h / Self-study

Target group:

The course is targeted for the third year medical students to support the skills of radiological 3D clinical anatomy.

Prerequisites and co-requisites:

In addition to the first year anatomy course the radiology course should be mainly lectured.

Recommended optional programme components:

The course is an independent entity and does not require additional studies carried out at the same time.

Recommended or required reading:

Through the Optima portal the student will receive the clinical viewer loaded with three dimensional image stacks. The portal provides also the lecture material and introductory texts for the imaging modalities. Links for the electronic books are provided as well.

Assessment methods and criteria:

The electronic examination has 20 image questions.

Grading:

The assessment is pass/fail. The level of acceptance is 10/20.

Person responsible:

Professor Juha Tuukkanen.

Working life cooperation:

No.

041010Y: Clinical Genomics, 2 op**Voimassaolo:** 01.08.2014 -**Opiskelumuoto:** General Studies**Laji:** Course**Vastuuyksikkö:** Faculty of Biochemistry and Molecular Medicine**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Karppinen, Peppi Leena Elina**Opintokohteen kielet:** Finnish**ECTS Credits:**

2 ECTS credits / 54 hours of work

Language of instruction:

Finnish

Timing:The course unit is held in the spring semester of the 1st year.**Learning outcomes:**

Aim of this course is to learn basic inheritance of man, the nature of the cancer-related genes and related drugs for treating patients, and the common features of biobank. In addition, this course will give basics of methodology and bioinformatics used in medical genetics, and also give ethical aspects to working physician.

Contents:

Basics of inheritance of man, selected basic methodology used in medical genetics, bioinformatics, DNA repairing mechanisms, cancer-related genes (proto-oncogenes, oncogenes, tumour suppressors, growth factors and cytokines), drugs used in cancer therapy, biobanks, ethical aspects of genomics.

Mode of delivery:

Lectures with exercises.

Learning activities and teaching methods:

22 hours of lectures including some exercises.

Target group:

Major students.

Assessment methods and criteria:

Exam.

Grading:

Pass/Fail.

Person responsible:

Prof. Peppi Karppinen

Working life cooperation:

No

040037Y: Clinical Pathology, 2nd period, 1 op**Voimassaolo:** 01.08.2014 -**Opiskelumuoto:** Intermediate Studies**Laji:** Course**Vastuuyksikkö:** Medicine**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Karttunen, Tuomo Juhani**Opintokohteen kielet:** Finnish**ECTS Credits:**

1 ECTS credits / 28,5 hours of work

Language of instruction:

Finnish

Timing:

2. year (autumn), linked with the General pathology course

Learning outcomes:

This course focuses on the most important diseases with dominantly systemic manifestations. This field relates with General Pathology as these diseases manifest themselves in similar patterns in organs involved.

After the course, students should be able to describe etiology and pathogenesis of the most important diseases presenting with systemic manifestations and structural abnormalities of such diseases. The student should be able to explain how structural and functional abnormalities manifest themselves as clinical symptoms and signs. In addition, students should be able to identify and classify the most common types of macroscopic and microscopic abnormalities in these diseases

Contents:

Concept of systemic disease, pathology of diabetes and other diseases of the endocrine system, pathology of sarcoidosis, amyloidosis and the systemic connective tissue diseases; pathology of cardiovascular diseases.

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

Lectures 9 h, practical training 4 h, exam 0,5 h

Independent work 15 h

Target group:

Medical and dental students

Prerequisites and co-requisites:

040108A General Pathology

Recommended optional programme components:

Teaching and exam are coordinated with the course 040108A General pathology

Recommended or required reading:

Mäkinen M. et al. Patologia, Duodecim, 2012.

Or: Cross SS: Underwood's Pathology, a clinical approach (6th ed. 2013)

Or: Underwood JCE: General and systematic pathology (5th ed. 2009).

Or: Kumar V. et al.: Robbins Basic Pathology, (9 th ed. 2012 tai 7th ed. 2007).

Other: Kumar V. et al.: Robbins and Cotran, Pathologic basis of disease (8 th ed. 2010).

Lecture handouts (Optima); Material associated with virtual pathology teaching program (in Finnish).

Assessment methods and criteria:

Attendance in compulsory teaching, exam.

Grading:

The exam will be coordinated with that of 040108A General pathology. Exam of Pathology integrated studies 040037Y is assessed separately with grading 1-5 and fail.

Person responsible:

Professor Tuomo Karttunen

Working life cooperation:

No

040040Y: Clinical Physiology, 3rd period, 2 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Vuolteenaho, Olli Jaakko Tuomas

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080505A: Clinical genetics, 2 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

ECTS Credits:

2 ECTS credits / 53 hours of work

Language of instruction:

Finnish.

Timing:

C 9-10, in the autumn and spring semester.

Learning outcomes:

Upon completion the student will be able to identify/suspect a genetic disease in the patient/family, identify patients who need genetic counselling and refer them further to a clinical genetics unit, describe the structure of chromosomes and genes, their examination and to interpret the results of a chromosome or DNA examination, explain the recurrence risks in different modes of inheritance and to discuss their significance for family members and the possibilities of

prenatal diagnostics, explain the unique spectrum of genetic disease in Finland, understand the special nature of genetic disease and recognize the ethical problems related to genetic testing, and to recognize the need of special care for families with a child suffering from congenital malformations/genetic disease and adult patients with serious genetic conditions.

Contents:

Clinical genetics as a medical speciality. Examination of the patient and family, drawing the pedigree. Modes of inheritance. Chromosomal disorders, principles and indications of chromosome studies. Principles and clinical applications of DNA studies. Population genetics and "Finnish Disease Heritage". Hereditary cancer, diagnosis, examination and counselling. Congenital malformations, basics of dysmorphology and syndrome identification. Prenatal diagnostics, genetic screening and counselling. Genetics of complex diseases. Genetic ethics. Principles and practice of genetic counselling, genetic services.

Mode of delivery:

Blended teaching

Learning activities and teaching methods:

Lectures 18h / Small group teaching 2h. Independent work and online work 33h.

Target group:

Medical students.

Prerequisites and co-requisites:

The required prerequisite is the completion of preclinical courses prior to enrolling for the course unit.

Recommended optional programme components:

No alternative course units.

Recommended or required reading:

Aula P, Kääriäinen H, Palotie A: Perinnöllisyyslääketiede. Duodecim, 2006. Additionally recommended: Read A, Donnai D: New Clinical Genetics, Scion 2011. Also newer editions, if available.

Assessment methods and criteria:

The course utilizes continuous assessment. During the course, there are intermediate exams and the students compile a learning diary, which will be assessed. In addition, the students prepare a written coursework with peer review as the assessment method. The course can be completed also in a final exam, if necessary. The assessment criteria are based on the learning outcomes of the course. Participation in obligatory teaching events is required.

Grading:

The course unit utilizes verbal grading scale pass/ fail.

Person responsible:

Jukka Moilanen, Clinical Lecturer in Clinical Genetics

Working life cooperation:

No

040128A: Clinical pharmacology and medicinal treatment, 1 op

Voimassaolo: 01.08.2015 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Miia Turpeinen

Opintokohteen kielet: Finnish

ECTS Credits:

1.0 ECTS/26 hours of work

Language of instruction:

Finnish

Timing:

C9-10

Learning outcomes:

After passing the course the student should have ability to safe, efficient and cost effective drug therapy. The student should understand the basis for drug therapy from the point of view of general practitioner and the treatment of most common intoxications.

Contents:

Factors affecting drug selection, dosage and therapy will be discussed applying knowledge of basic pharmacology. Furthermore, the common problem cases of drug therapy will be discussed. Use of major classes of drugs, special treatment situations and most common intoxications will also be discussed.

Mode of delivery:

face-to-face teaching

Learning activities and teaching methods:

Clinical pharmacology patient case discussions in study groups (2 h). Thematic seminars (7 x 2 h) will cover major areas of drug therapy and special situations of drug treatment and most common intoxications. Final exam.

Target group:

Medical Students

Prerequisites and co-requisites:

The required prerequisite is the completion of the following courses prior to enrolling for the course unit:

Pharmacology and toxicology (040106A)

Recommended optional programme components:

No alternative courses

Recommended or required reading:

Book: Neuvonen, Backman, Himberg, Huupponen, Keränen, Kivistö (eds.) Kliininen farmakologia ja lääkehoito, Kandidaatikustannus Oy (last edition). Materials of the thematic seminars.

Assessment methods and criteria:

Attending the patient case discussion with the tutor and passing of the final exam.

Grading:

The course unit utilizes verbal grading scale pass/fail

Person responsible:

Doc. Miia Turpeinen (miia.turpeinen@oulu.fi)

Working life cooperation:

No

040127A: Clinical pharmacology and prescriptions, 1 op

Voimassaolo: 01.08.2013 -

Opiskelumuoto: Basic Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Miia Turpeinen

Opintokohteen kielet: Finnish

ECTS Credits:

1 ECTS credits /26,50 hours of work

Language of instruction:

Finnish

Timing:

The course is held in the autumn semester, during the third year of medical studies.

Learning outcomes:

Upon completion of the course, the student will be able to understand an appropriate way to write prescriptions. The student knows authoritative regulations and restrictions concerning the prescription and delivery of pharmaceuticals. In addition the student understands the role of pharmacy in delivering the drugs. The student understands principles of personalized drug therapy and mechanisms and significance of adverse drug reactions.

Contents:

The construction of a prescription. The information to be entered to the prescription. The authoritative regulations concerning the prescription and delivery of pharmaceuticals. The role of pharmacy in drug delivery, pharmaceutical forms, the quality control and storage of pharmaceuticals. Effect of diseases on pharmacokinetics, adverse drug reactions and reporting adverse drug reactions. Personalized drug therapy. Prescription demonstration.

Mode of delivery:

The tuition will be arranged as face-to-face teaching.

Learning activities and teaching methods:

Lectures 12h/ Demonstration 2h/ Self-study 12,5h.

Target group:

Target groups are 3rd year medical and dentistry students.

Prerequisites and co-requisites:

Prerequisite for participation to the course is the completion of preclinical studies.

Recommended optional programme components:

No alternative courses.

Recommended or required reading:

Terveysportin (<http://www.terveysportti.fi>) lääketietokannan reseptiopas

Pharmaca Fennica

The National Archive of Health Information www-pages (<http://kanta.fi/en>)

Oppikirja Neuvonen, Backman, Himberg, Huupponen, Keränen, Kivistö (toim.) Kliininen farmakologia ja lääkehoito,

Kandidaatikustannus Oy (uusin painos), soveltuvin osin

Assessment methods and criteria:

Exam assessment.

Grading:

The course unit utilizes verbal grading scale: pass/ fail.

Person responsible:

Pirkko Viitala, laboratory chief.

Miia Turpeinen, university researcher

Working life cooperation:

No

080203A: Dermatology and venereology, 5 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Kaisa Tasanen-Määttä

Opintokohteen kielet: English

ECTS Credits:

5,5 ECTS/148 hours of work

Language of instruction:

The tuition is arranged in Finnish. The course unit can be completed in English by group teaching.

Timing:

The course unit is held in the autumn/spring semester C9-C10.

Learning outcomes:

Objective of the course expressed in terms of learning outcomes: After this course the student has the knowledge and skills in diagnostics and treatment of common skin diseases in order to be able to work as a general practitioner or house officer. Furthermore, the student has the basic skills to diagnose and treat allergological and venereal diseases.

Contents:

Theoretical teaching: Special features of status and anamnesis. Structure of skin. Basics of local treatments. Basics of allergology. Common skin diseases and their clinical findings. Skin tumours. Hereditary skin diseases.

Dermatopathology. Venereal and paravenereal disease.. Practical teaching: Demonstrations, patient examination, small group teaching, bedside teaching, policlinic, self study (material available in the Optima)

Mode of delivery:

The tuition will be implemented as face-to-face teaching and web-based teaching (Optima).

Learning activities and teaching methods:

Theoretical teaching 49 h

1. Lectures 42 h

2. Interactive lectures 3 h

3. Examinations 4 h

Practical teaching 15 h

3. Small group teaching in the outpatient ward 9 h

4 Small group teaching in the inpatient ward 6 h

Self study

6. Self study using material available in the Optima.

Target group:

Medical students

Prerequisites and co-requisites:

The recommended prerequisite is the completion of studies for previous semesters.

Recommended optional programme components:

The study unit cannot be completed alternatively.

Recommended or required reading:

Books:

Hannuksela, M., Karvonen, J., Reunala, T., Suhonen, R. (eds.). Ihotaudit. Kustannus Oy Duodecim.

Reunala T, Paavonen J, Rostila T (eds.): Sukupuolitaudit. Kustannus Oy Duodecim,.

Recommended reading: Haahtela T., Hannuksela M., Terho, E.O.: Allergologia. Kustannus Oy Duodecim.

Assessment methods and criteria:

Initial examination in the Optima has to be passed before starting the practical teaching. The end-of-course examination: books, lectures and small group teaching. Obligatory presence in the theme day teaching of allergology and in the theme day of venereology.

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

Grading:

The course unit utilizes a numerical grading scale 1-5.

The end-of-course examination contains 10 questions which are graded from 0-3. Maximal grade is 30 points and the level of acceptance is 15 points.

Person responsible:

Clinical lecturer

Working life cooperation:

No

Other information:

Research projects / Department of Dermatology

1. Molecular biology of bullous skin diseases

Responsible person: professor Kaisa Tasanen-Määttä

1 student per year

2. Epidemiology of bullous skin diseases in Finland

Responsible person: professor Kaisa Tasanen-Määttä

1 student per year

3. Epidemiology of skin diseases in Northern Finland Birth

Cohort (NFBC1967)

Responsible person: professor Kaisa Tasanen-Määttä

1 student per year

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080203A-01: Dermatology and venereology Pre-examination, 0,5 op

Voimassaolo: 01.08.2014 -

Opiskelumoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Kaisa Tasanen-Määttä

Opintokohteen kielet: Finnish

ECTS Credits:

5,5 ECTS credits

Timing:

C9-C10

Learning outcomes:

Objective of the course expressed in terms of learning outcomes: After this course the student has the knowledge and skills in diagnostics and treatment of common skin diseases in order to be able to work as a general practitioner or house officer. Furthermore, the student has the basic skills to diagnose and treat allergological and venereal diseases.

Contents:

Theoretical teaching: Special features of status and anamnesis. Structure of skin. Basics of local treatments. Basics of allergology. Common skin diseases and their clinical findings. Hereditary skin diseases. Dermatopathology. Venereal and paravenereal disease.. Practical teaching: Demonstrations, patient examination, small group teaching, bedside teaching, policlinic, self study (material available in the Optima)

Learning activities and teaching methods:

Theoretical teaching 49 h

1. Lectures 42 h

2. Interactive lectures 3 h

3. Examinations 4 h

Practical teaching 14 h

3. Small group teaching in the outpatient ward 6 h

4 Small group teaching in the inpatient ward 6 h

5. Consultative small group teaching 2 h

Self study 85 h

6. Self study using material available in the Optima.

Recommended or required reading:

Books: Hannuksela, M., Karvonen, J., Reunala, T., Suhonen, R. (eds.). Ihotaudit. Kustannus Oy Duodecim. Reunala T, Paavonen J, Rostila T (eds.): Sukupuolitaudit. Kustannus Oy Duodecim,. Recommended reading: Haahtela T., Hannuksela M., Terho, E.O.: Allergologia. Kustannus Oy Duodecim.

Assessment methods and criteria:

Initial examination in the Optima has to be passed before starting the practical teaching. The end-of-course examination: books, lectures and small group teaching. Obligatory presence in the theme day teaching of sexology and venereology.

Grading:

The end-of-course examination contains 10 questions which are graded from 0-3. Maximal grade is 30 points and the level of acceptance is 15 points. The theme day of sexology and venereology, evaluation: pass/fall.

Person responsible:

Clinical lecturer Erika Lyytikäinen (erika.lyytikainen@oulu.fi)

Other information:

Research projects / Department of Dermatology

1. Skin connective tissue and wound healing

Responsible person: Professor Aarne Oikarinen

1 or 2 student per year

2. Molecular biology of skin connective tissue diseases

Responsible person: Clinical lecturer Kaisa Tasanen-Määttä

1 student per year

3. Glucocorticoid receptors

Responsible person: Päivi Hägg, MD, PhD

1 student per year

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Kaisa Tasanen-Määttä

Opintokohteen kielet: Finnish

ECTS Credits:

5,5 ECTS credits

Timing:

C9-C10

Learning outcomes:

Objective of the course expressed in terms of learning outcomes: After this course the student has the knowledge and skills in diagnostics and treatment of common skin diseases in order to be able to work as a general practitioner or house officer. Furthermore, the student has the basic skills to diagnose and treat allergological and venereal diseases.

Contents:

Theoretical teaching: Special features of status and anamnesis. Structure of skin. Basics of local treatments. Basics of allergology. Common skin diseases and their clinical findings. Hereditary skin diseases. Dermatopathology. Venereal and paravenereal disease.. Practical teaching: Demonstrations, patient examination, small group teaching, bedside teaching, polyclinic, self study (material available in the Optima)

Learning activities and teaching methods:

Theoretical teaching 49 h

1. Lectures 42 h

2. Interactive lectures 3 h

3. Examinations 4 h

Practical teaching 14 h

3. Small group teaching in the outpatient ward 6 h

4 Small group teaching in the inpatient ward 6 h

5. Consultative small group teaching 2 h

Self study 85 h

6. Self study using material available in the Optima.

Recommended or required reading:

Books: Hannuksela, M., Karvonen, J., Reunala, T., Suhonen, R. (eds.). Ihotaudit. Kustannus Oy Duodecim. Reunala T, Paavonen J, Rostila T (eds.): Sukupuolitaudit. Kustannus Oy Duodecim,. Recommended reading: Haahtela T., Hannuksela M., Terho, E.O.: Allergologia. Kustannus Oy Duodecim.

Assessment methods and criteria:

Initial examination in the Optima has to be passed before starting the practical teaching. The end-of-course examination: books, lectures and small group teaching. Obligatory presence in the theme day teaching of sexology and venereology.

Grading:

The end-of-course examination contains 10 questions which are graded from 0-3. Maximal grade is 30 points and the level of acceptance is 15 points. The theme day of sexology and venereology, evaluation: pass/fail.

Person responsible:

Clinical lecturer Erika Lyytikäinen (erika.lyytikainen@oulu.fi)

Other information:

Research projects / Department of Dermatology

1. Skin connective tissue and wound healing

Responsible person: Professor Aarne Oikarinen

1 or 2 student per year

2. Molecular biology of skin connective tissue diseases
Responsible person: Clinical lecturer Kaisa Tasanen-Määttä
1 student per year
3. Glucocorticoid receptors
Responsible person: Päivi Hägg, MD, PhD
1 student per year

080203A-03: Dermatology and venereology Theme day, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Kaisa Tasanen-Määttä

Opintokohteen kielet: Finnish

ECTS Credits:

5,5 ECTS credits

Timing:

C9-C10

Learning outcomes:

Objective of the course expressed in terms of learning outcomes: After this course the student has the knowledge and skills in diagnostics and treatment of common skin diseases in order to be able to work as a general practitioner or house officer. Furthermore, the student has the basic skills to diagnose and treat allergological and venereal diseases.

Contents:

Theoretical teaching: Special features of status and anamnesis. Structure of skin. Basics of local treatments. Basics of allergology. Common skin diseases and their clinical findings. Hereditary skin diseases. Dermatopathology. Venereal and paravenereal disease.. Practical teaching: Demonstrations, patient examination, small group teaching, bedside teaching, policlinic, self study (material available in the Optima)

Learning activities and teaching methods:

Theoretical teaching 49 h

1. Lectures 42 h

2. Interactive lectures 3 h

3. Examinations 4 h

Practical teaching 14 h

3. Small group teaching in the outpatient ward 6 h

4 Small group teaching in the inpatient ward 6 h

5. Consultative small group teaching 2 h

Self study 85 h

6. Self study using material available in the Optima.

Recommended or required reading:

Books: Hannuksela, M., Karvonen, J., Reunala, T., Suhonen, R. (eds.). Ihotaudit. Kustannus Oy Duodecim. Reunala T, Paavonen J, Rostila T (eds.): Sukupuolitaudit. Kustannus Oy Duodecim,. Recommended reading: Haahtela T., Hannuksela M., Terho, E.O.: Allergologia. Kustannus Oy Duodecim.

Assessment methods and criteria:

Initial examination in the Optima has to be passed before starting the practical teaching. The end-of-course examination: books, lectures and small group teaching. Obligatory presence in the theme day teaching of sexology and venereology.

Grading:

The end-of-course examination contains 10 questions which are graded from 0-3. Maximal grade is 30 points and the level of acceptance is 15 points. The theme day of sexology and venereology, evaluation: pass/fail.

Person responsible:

Clinical lecturer Erika Lyytikäinen (erika.lyytikainen@oulu.fi)

Other information:

Research projects / Department of Dermatology

1. Skin connective tissue and wound healing

Responsible person: Professor Arne Oikarinen

1 or 2 student per year

2. Molecular biology of skin connective tissue diseases

Responsible person: Clinical lecturer Kaisa Tasanen-Määttä

1 student per year

3. Glucocorticoid receptors

Responsible person: Päivi Hägg, MD, PhD

1 student per year

080203A-04: Dermatology and venereology Seminars, 1 op

Voimassaolo: 01.08.2014 - 31.07.2017

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Kaisa Tasanen-Määttä

Opintokohteen kielet: Finnish

ECTS Credits:

5,5 ECTS credits

Timing:

C9-C10

Learning outcomes:

Objective of the course expressed in terms of learning outcomes: After this course the student has the knowledge and skills in diagnostics and treatment of common skin diseases in order to be able to work as a general practitioner or house officer. Furthermore, the student has the basic skills to diagnose and treat allergological and venereal diseases.

Contents:

Theoretical teaching: Special features of status and anamnesis. Structure of skin. Basics of local treatments. Basics of allergology. Common skin diseases and their clinical findings. Hereditary skin diseases. Dermatopathology. Venereal and paravenereal disease.. Practical teaching: Demonstrations, patient examination, small group teaching, bedside teaching, policlinic, self study (material available in the Optima)

Learning activities and teaching methods:

Theoretical teaching 49 h

1. Lectures 42 h

2. Interactive lectures 3 h

3. Examinations 4 h

Practical teaching 14 h

3. Small group teaching in the outpatient ward 6 h

4 Small group teaching in the inpatient ward 6 h

5. Consultative small group teaching 2 h

Self study 85 h

6. Self study using material available in the Optima.

Recommended or required reading:

Books: Hannuksela, M., Karvonen, J., Reunala, T., Suhonen, R. (eds.). Ihotaudit. Kustannus Oy Duodecim. Reunala T, Paavonen J, Rostila T (eds.): Sukupuolitaudit. Kustannus Oy Duodecim,. Recommended reading: Haahtela T., Hannuksela M., Terho, E.O.: Allergologia. Kustannus Oy Duodecim.

Assessment methods and criteria:

Initial examination in the Optima has to be passed before starting the practical teaching. The end-of-course examination: books, lectures and small group teaching. Obligatory presence in the theme day teaching of sexology and venereology.

Grading:

The end-of-course examination contains 10 questions which are graded from 0-3. Maximal grade is 30 points and the level of acceptance is 15 points. The theme day of sexology and venereology, evaluation: pass/fail.

Person responsible:

Clinical lecturer Erika Lyytikäinen (erika.lyytikainen@oulu.fi)

Other information:

Research projects / Department of Dermatology

1. Skin connective tissue and wound healing

Responsible person: Professor Aarne Oikarinen

1 or 2 student per year

2. Molecular biology of skin connective tissue diseases

Responsible person: Clinical lecturer Kaisa Tasanen-Määttä

1 student per year

3. Glucocorticoid receptors

Responsible person: Päivi Hägg, MD, PhD

1 student per year

080203A-05: Dermatology and venereology patient cases, 0,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Kaisa Tasanen-Määttä

Opintokohteen kielet: Finnish

ECTS Credits:

5,5 ECTS credits

Timing:

C9-C10

Learning outcomes:

Objective of the course expressed in terms of learning outcomes: After this course the student has the knowledge and skills in diagnostics and treatment of common skin diseases in order to be able to work as a general practitioner or house officer. Furthermore, the student has the basic skills to diagnose and treat allergological and venereal diseases.

Contents:

Theoretical teaching: Special features of status and anamnesis. Structure of skin. Basics of local treatments. Basics of allergology. Common skin diseases and their clinical findings. Hereditary skin diseases. Dermatopathology. Venereal and paravenereal disease.. Practical teaching: Demonstrations, patient examination, small group teaching, bedside teaching, policlinic, self study (material available in the Optima)

Learning activities and teaching methods:

Theoretical teaching 49 h

1. Lectures 42 h

2. Interactive lectures 3 h

3. Examinations 4 h

Practical teaching 14 h

3. Small group teaching in the outpatient ward 6 h

4 Small group teaching in the inpatient ward 6 h

5. Consultative small group teaching 2 h
Self study 85 h
6. Self study using material available in the Optima.

Recommended or required reading:

Books: Hannuksela, M., Karvonen, J., Reunala, T., Suhonen, R. (eds.). Ihotaudit. Kustannus Oy Duodecim. Reunala T, Paaavonen J, Rostila T (eds.): Sukupuolitaudit. Kustannus Oy Duodecim,. Recommended reading: Haahtela T., Hannuksela M., Terho, E.O.: Allergologia. Kustannus Oy Duodecim.

Assessment methods and criteria:

Initial examination in the Optima has to be passed before starting the practical teaching. The end-of-course examination: books, lectures and small group teaching. Obligatory presence in the theme day teaching of sexology and venereology.

Grading:

The end-of-course examination contains 10 questions which are graded from 0-3. Maximal grade is 30 points and the level of acceptance is 15 points. The theme day of sexology and venereology, evaluation: pass/fail.

Person responsible:

Clinical lecturer Erika Lyytikäinen (erika.lyytikainen@oulu.fi)

Other information:

Research projects / Department of Dermatology

1. Skin connective tissue and wound healing

Responsible person: Professor Aarne Oikarinen

1 or 2 student per year

2. Molecular biology of skin connective tissue diseases

Responsible person: Clinical lecturer Kaisa Tasanen-Määttä

1 student per year

3. Glucocorticoid receptors

Responsible person: Päivi Hägg, MD, PhD

1 student per year

080203A-06: Dermatology and venereology examination, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Kaisa Tasanen-Määttä

Opintokohteen kielet: Finnish

ECTS Credits:

5,5 ECTS credits

Timing:

C9-C10

Learning outcomes:

Objective of the course expressed in terms of learning outcomes: After this course the student has the knowledge and skills in diagnostics and treatment of common skin diseases in order to be able to work as a general practitioner or house officer. Furthermore, the student has the basic skills to diagnose and treat allergological and venereal diseases.

Contents:

Theoretical teaching: Special features of status and anamnesis. Structure of skin. Basics of local treatments. Basics of allergology. Common skin diseases and their clinical findings. Hereditary skin diseases. Dermatopathology. Venereal and paravenereal disease.. Practical teaching: Demonstrations, patient examination, small group teaching, bedside teaching, policlinic, self study (material available in the Optima)

Learning activities and teaching methods:

- Theoretical teaching 49 h
1. Lectures 42 h
 2. Interactive lectures 3 h
 3. Examinations 4 h
- Practical teaching 14 h
3. Small group teaching in the outpatient ward 6 h
 - 4 Small group teaching in the inpatient ward 6 h
 5. Consultative small group teaching 2 h
- Self study 85 h
6. Self study using material available in the Optima.

Recommended or required reading:

Books: Hannuksela, M., Karvonen, J., Reunala, T., Suhonen, R. (eds.). Ihotaudit. Kustannus Oy Duodecim. Reunala T, Paavonen J, Rostila T (eds.): Sukupuolitaudit. Kustannus Oy Duodecim,. Recommended reading: Haahtela T., Hannuksela M., Terho, E.O.: Allergologia. Kustannus Oy Duodecim.

Assessment methods and criteria:

Initial examination in the Optima has to be passed before starting the practical teaching. The end-of-course examination: books, lectures and small group teaching. Obligatory presence in the theme day teaching of sexology and venereology.

Grading:

The end-of-course examination contains 10 questions which are graded from 0-3. Maximal grade is 30 points and the level of acceptance is 15 points. The theme day of sexology and venereology, evaluation: pass/fall.

Person responsible:

Clinical lecturer Erika Lyytikäinen (erika.lyytikainen@oulu.fi)

Other information:

Research projects / Department of Dermatology

1. Skin connective tissue and wound healing

Responsible person: Professor Aarne Oikarinen

1 or 2 student per year

2. Molecular biology of skin connective tissue diseases

Responsible person: Clinical lecturer Kaisa Tasanen-Määttä

1 student per year

3. Glucocorticoid receptors

Responsible person: Päivi Hägg, MD, PhD

1 student per year

080202A: Forensic medicine, 4 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

ECTS Credits:

4 ECTS

Language of instruction:

Finnish

Timing:

During spring term of the 4th year (C8)

Learning outcomes:

Upon completion of the course the student knows the legislation and legal status concerning doctor and patient, knows how to write medical certificates and statements, knows the principles of death investigation and especially investigation of unexpected and violent deaths, and is familiar with forensic way of thinking, e.g. how to act as a medical authority.

Contents:

The organization of forensic medicine in Finland. Forensic medicine as a medical speciality. Legal status and supervision concerning doctors, complaints against doctors. Professional secrecy. Medical certificates and

statements, especially forensic statements. The organization of death investigations, causes of death and circulation of death certificates. Mechanisms of death and declaration of legal death. Legal status of the deceased and his/her relatives. Sexual forensic medicine. Traffic medicine. Homicides and suicides. Fatal intoxications and deaths related to drug abuse. Molecular biology in forensic medicine. Injuries by stabbing, incisive wounds, and injuries by blunt force. Fatal firearm injuries, burns and electrical fatalities. Hypothermia, suffocation and asphyxia, fatal pressure on the neck. Drowning and decompression. Pediatric forensic medicine. Death certificates, medical examinations for driving license, medical certificate of physical assault injuries and in sexual offences, certificate after an external post mortem examination, clinical drunkenness examination.

Mode of delivery:

Face –to-face teaching

Learning activities and teaching methods:

Lectures 28 h. Autopsy demonstrations and slide shows 8 h, medical certificates 8 h. A visit to Oulu police department 1.5 h.

Target group:

For the medical students of the fourth year

Prerequisites and co-requisites:

All earlier studies in the curriculum of basic medical education.

Recommended optional programme components:

The course is performed simultaneously with other courses including the curriculum in 4th year..

Recommended or required reading:

Lectures, slide shows and written exercises (medical certificates).

Assessment methods and criteria:

Obligatory participation in autopsy demonstrations. Lectures, slide shows and practical training on medical certificates. Examination.

Examination with 7 questions. The evaluation scale of each question is from 0 to 6. The evaluation scale of the examination is 0-5, according to the total sum of the 7 questions (0-42). The student will not pass the examination if two or more of the answers are graded as 0. Three examinations are arranged each year.

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

Grading:

The evaluation scale is 0-5 (0=fail, 5=excellent).

Person responsible:

Professor Marja-Leena Kortelainen

compuls18

080202A-01: Forensic medicin, obligatory studies, 2 op

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

ECTS Credits:

4

Language of instruction:

Finnish

Timing:

C8

Learning outcomes:

The student gets acquainted with legislation and legal status concerning doctor and patient, learns how to write medical certificates and statements, gets acquainted with the principles of death investigation and especially investigation of unexpected and violent deaths, and gets familiar with forensic way of thinking, e. g. how to act as a medical authority.

Contents:

The organization of forensic medicine in Finland. Forensic medicine as a medical speciality. Legal status and supervision concerning doctors, complaints against doctors. Professional secrecy. Medical certificates and statements, especially forensic statements. The organization of death investigations, causes of death

and circulation of death certificates. Mechanisms of death and declaration of legal death. Legal status of the deceased and his/her relatives. Sexual forensic medicine. Traffic medicine. Homicides and suicides. Fatal intoxications and deaths related to drug abuse. Molecular biology in forensic medicine. Injuries by stabbing, incisive wounds, and injuries by blunt force. Fatal firearm injuries, burns and electrical fatalities. Hypothermia, suffocation and asphyxia, fatal pressure on the neck. Drowning and decompression. Pediatric forensic medicine. Death certificates, medical examinations for driving license, medical certificate of physical assault injuries and in sexual offences, certificate after an external post mortem examination, clinical drunkenness examination.

Learning activities and teaching methods:

Lectures 28 h. Autopsy demonstrations and slide shows 8 h, medical certificates 8 h. A visit to Oulu police department 1.5 h.

Recommended or required reading:

Penttilä A, Hirvonen J, Saukko P, Karhunen P (Eds). Oikeuslääketiede . 1st edition. Kustannus Oy Duodecim 2000. The contents of the lectures, demonstrations and practical training on medical certificates.

Assessment methods and criteria:

Obligatory participation in autopsy demonstrations. Lectures, slide shows and practical training on medical certificates. Examination.

Grading:

Examination with 7 questions. The evaluation scale of each question is from 0 to 6. The evaluation scale of the examination is 0-5, according to the total sum of the 7 questions (0-42). The student will not pass the examination if two or more of the answers are graded as 0. Three examinations are arranged each year.

Person responsible:

Professor Marja-Leena Kortelainen

080202A-02: Forensic medicine, exam, 2 op

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

ECTS Credits:

4

Language of instruction:

Finnish

Timing:

C8

Learning outcomes:

The student gets acquainted with legislation and legal status concerning doctor and patient, learns how to write medical certificates and statements, gets acquainted with the principles of death investigation and especially investigation of unexpected and violent deaths, and gets familiar with forensic way of thinking, e. g. how to act as a medical authority.

Contents:

The organization of forensic medicine in Finland. Forensic medicine as a medical speciality. Legal status and supervision concerning doctors, complaints against doctors. Professional secrecy. Medical certificates and statements, especially forensic statements. The organization of death investigations, causes of death and circulation of death certificates. Mechanisms of death and declaration of legal death. Legal status of the deceased and his/her relatives. Sexual forensic medicine. Traffic medicine. Homicides and suicides. Fatal intoxications and deaths related to drug abuse. Molecular biology in forensic medicine. Injuries by stabbing, incisive wounds, and injuries by blunt force. Fatal firearm injuries, burns and electrical fatalities. Hypothermia, suffocation and asphyxia, fatal pressure on the neck. Drowning and decompression. Pediatric forensic medicine. Death certificates, medical examinations for driving license, medical certificate of physical assault injuries and in sexual offences, certificate after an external post mortem examination, clinical drunkenness examination.

Learning activities and teaching methods:

Lectures 28 h. Autopsy demonstrations and slide shows 8 h, medical certificates 8 h. A visit to Oulu police department 1.5 h.

Recommended or required reading:

Penttilä A, Hirvonen J, Saukko P, Karhunen P (Eds). Oikeuslääketiede . 1st edition. Kustannus Oy Duodecim 2000. The contents of the lectures, demonstrations and practical training on medical certificates.

Assessment methods and criteria:

Obligatory participation in autopsy demonstrations. Lectures, slide shows and practical training on medical certificates. Examination.

Grading:

Examination with 7 questions. The evaluation scale of each question is from 0 to 6. The evaluation scale of the examination is 0-5, according to the total sum of the 7 questions (0-42). The student will not pass the examination if two or more of the answers are graded as 0. Three examinations are arranged each year.

Person responsible:

Professor Marja-Leena Kortelainen

080914A: Geriatrics, 4 op

Voimassaolo: 01.08.2011 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Antikainen, Riitta Liisa

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080716A: Internal Medicine 2, 4,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Olavi Ukkola

Opintokohteen kielet: Finnish

ECTS Credits:

4,5 ECTS/ 122 hours of work

Language of instruction:

Finnish

Timing:

4th year, C7-C8

Learning outcomes:

Internal medicine: This course gives the student advanced knowledge in internal medicine and skills of critical thinking. The student is able to treat the patients appropriate way in health care system. The student understands the significance of different levels of healthcare.

Infectious Diseases: After this course student recognices the main infectious diseases, knows their diagnostics, treatment and epidemiology. He/she understands the main principles of the infection control in the hospital and outpatient care.

Rheumatology: The student will identify the most common rheumatic diseases. The students understand the role of health centers in the treatment of rheumatic diseases and situations in which the patient should be immediately referred to a specialist hospital.

Contents:

Infectious Diseases: Most common infectious diseases and treatments.

Rheumatology: Most common rheumatologic diseases and treatments.

Internal medicine: Essential issues of internal medicine.

Mode of delivery:

Blended teaching (web-based teaching and face to face teaching).

Learning activities and teaching methods:

Variable teaching and learning methods

Lectures, small group classes, theme days and seminars. Attendance is compulsory.

Ward practice, 1 week

Small group classes, theme days and seminars are compulsory.

Target group:

Medical students, C7-C8

Prerequisites and co-requisites:

Student must have completed the course of Internal Medicine I.

Recommended optional programme components:

The course is performed simultaneously with other fourth year's courses.

Recommended or required reading:

Infectious Diseases:

- Huovinen P, Hedman K, Heikkinen T, Järvinen A, Meri S, Vaara M. (toim.): Mikrobiologia – Mikrobiologia, immunologia ja infektiosairaudet, kirja 1 (2010), Kustannus Oy Duodecim
- Hedman K, Heikkinen T, Huovinen P, Järvinen A, Meri S, Vaara M. (toim.): Immunologia – Mikrobiologia, immunologia ja infektiosairaudet, kirja 2 (2011), Kustannus Oy Duodecim
- Hedman K, Heikkinen T, Huovinen P, Järvinen A, Meri S, Vaara M. (toim.): Infektiosairaudet – Mikrobiologia, immunologia ja infektiosairaudet, kirja 3 (2011), Kustannus Oy Duodecim

Rheumatology: Martio Jukka, Karjalainen Anna, Kauppi Markku, Kukkarainen Marja Leena, Kyngäs Helvi: Reuma. Duodecim, 2007.

Internal medicine: Internal medicine literature C5-C6

Assessment methods and criteria:

Attendance at compulsory teaching. Small exams and final exam of internal medicine.

Grading:

Infectious Diseases: The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

Rheumatology: The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

Final exam of Internal medicine: Exam consists of eight short essays: general internal medicine, endocrinology and metabolic diseases, cardiology and ECG, kidney diseases, haematology, infectious diseases, rheumatology and gastroenterology. The exam utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

Proportion of Infectious Diseases and Rheumatology is 50% and proportion of Final exam is 50% in the grade of 'Internal Medicine II'.

Person responsible:

Professor: Olavi Ukkola (olavi.ukkola@oulu.fi)

Infectious Diseases: Heikki Kauma (heikki.kauma@ppshp.fi)

Rheumatology: Anna Karjalainen (anna.karjalainen@ppshp.fi)

Working life cooperation:

Yes

Other information:

The final grade of internal medicine (A540131) consists of the Internal Medicine I and Internal Medicine II.

Proportion of Internal Medicine I is 40% and proportion of Internal Medicine II is 60% in the final grade of internal medicine.

*Compulsory***080716A-01: Clinical Practice, Internal Medicine 2, 0 op****Voimassaolo:** 01.08.2014 -**Opiskelumuoto:** Intermediate Studies**Laji:** Partial credit**Vastuuyksikkö:** Medicine**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Olavi Ukkola**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

080716A-02: Infectious Diseases compulsory studies, 1 op**Voimassaolo:** 01.08.2014 -**Opiskelumuoto:** Intermediate Studies**Laji:** Partial credit**Vastuuyksikkö:** Medicine**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Kauma, Heikki Iiro Ilmari**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

080716A-03: Infectious Diseases, Examination, 1,5 op**Voimassaolo:** 01.08.2014 -**Opiskelumuoto:** Intermediate Studies**Laji:** Partial credit**Vastuuyksikkö:** Medicine**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Kauma, Heikki Iiro Ilmari**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

080716A-04: Rheumatology, Examination, 1 op**Voimassaolo:** 01.08.2014 -**Opiskelumuoto:** Intermediate Studies**Laji:** Partial credit**Vastuuyksikkö:** Medicine**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Karjalainen, Anna Helena**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

080716A-05: Rheumatology, compulsory studies, 1 op**Voimassaolo:** 01.08.2014 -**Opiskelumuoto:** Intermediate Studies

Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Karjalainen, Anna Helena
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080716A-06: Internal Medicine 2, Final Examination, 0 op

Voimassaolo: 01.08.2014 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Olavi Ukkola
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080711A: Internal medicine I, 4,5 - 21 op

Voimassaolo: 01.08.2014 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Olavi Ukkola
Opintokohteen kielet: Finnish
Voidaan suorittaa useasti: Kyllä

ECTS Credits:

16,5 ECTS credits/ 440 hours of work

Language of instruction:

Finnish

Timing:

C5-C6

Learning outcomes:

After this course the student is familiar with diseases of internal medicine as well as diagnostics and treatment of these diseases. The student understands the connection between internal medicine and other medical specialities. The student learns independent problem solving and critical thinking and also to cooperate with healthcare professionals.

Contents:

Endocrinology and metabolic diseases, cardiology, kidney diseases, haematology, gastroenterology and emergencies in internal medicine

Mode of delivery:

Face to face teaching

Learning activities and teaching methods:

1. Lectures 77 h
2. Guided medical procedures and examinations. Carried out in small group classes and in ward practice.
3. Small group classes and seminars 22 h. Attendance is compulsory.
4. Practice in outpatient clinic 8 h. Attendance is compulsory.
5. Practice in the Department of Emergency (Internal Medicine) 3 x 6 h. Attendance is compulsory.
6. Ward practice 40 h. Attendance is compulsory. Part of practice is carried out in the hospitals of Northern Finland. Student writes accurate patient history and status of patients that he/she has examined carefully.
7. Theme days 45 h. Problem-oriented discussions about wider thematic entities. Attendance is compulsory.
8. Exams 11 h

Independent work 219 h.

Target group:

Medical students

Prerequisites and co-requisites:

Student must have completed preclinical studies.

Recommended optional programme components:

The course is performed simultaneously with other third year's courses.

Recommended or required reading:

Varsinaiset oppikirjat/Tekst books:

- Andreoli TE, Benjamin I, Griggs RC, Wing EJ: Andreoli and Carpenter's Cecil Essential of Medicine. Elsevier, 2012
- Saha H, Salonen T, Sane T.:Potilaan tutkiminen (2009), Kustannus Oy Duodecim.
- Mäkijärvi M, Harjola V-P, Päivä H, Valli J, Vaula E. Akuuttihoito-opas (2012), Kustannus Oy Duodecim

Suosittelavia oppikirjoja/ Recommended reading :

- Vauhkonen I, Holmström P: Sisätaudit. (4. painos, 2012), Sanoma pro (**suositellaan luettavaksi ennen kurssille tuloa**)
- Heikkilä J, Mäkijärvi M. EKG (2003), Kustannus Oy Duodecim
- Heikkilä J, Kupari M, Airaksinen J, Huikuri H, Nieminen MS, Peuhkurinen K. Kardiologia (2008), Kustannus Oy Duodecim
- Mäkijärvi M, Parikka H, Raatikainen P, Heikkilä J. EKG-tulkinnan työkirja (2006), Kustannus Oy Duodecim
- Huovinen P, Hedman K, Heikkinen T, Järvinen A, Meri S, Vaara M. (toim.): Mikrobiologia – Mikrobiologia, immunologia ja infektiosairaudet, kirja 1 (1.-2. painos, 2011), Kustannus Oy Duodecim
- Hedman K, Heikkinen T, Huovinen P, Järvinen A, Meri S, Vaara M. (toim.): Immunologia – Mikrobiologia, immunologia ja infektiosairaudet, kirja 2 (2011), Kustannus Oy Duodecim
- Hedman K, Heikkinen T, Huovinen P, Järvinen A, Meri S, Vaara M. (toim.): Infektiosairaudet – Mikrobiologia, immunologia ja infektiosairaudet, kirja 3 (2011), Kustannus Oy Duodecim
- Pasternack, A (toim.): Nefrologia (2012), Kustannus Oy Duodecim
- Höckerstedt K, Färkkilä M, Kivilaakso E, Pikkarainen P. Gastroenterologia ja hepatologia (2007), Kustannus Oy Duodecim
- Kaarteenaho R., Brander P., Halme M., Kinnula V (toim.): Keuhkosairaudet – diagnostiikka ja hoito (2013), Kustannus Oy Duodecim
- Koskenvuo K. (toim.): Sairauksien ehkäisy (2003), Kustannus Oy Duodecim
- Martio J., Karjalainen A., Kauppi M., Kukkurainen M-L., Kyngäs H.: Reuma (2007), Kustannus Oy Duodecim
- Ruutu T, Rajamäki A, Lassila R, Porkka K. Veritaudit (2007), Kustannus Oy Duodecim
- Välimäki M, Sane T, Dunkel L.: Endokrinologia (2. painos, 2009) Kustannus Oy Duodecim
- Thaler M. The only EKG book you'll ever need. 4th ed (2003). Lippincott Williams & Wilkins

Assessment methods and criteria:

Attendance in teaching.

Examinations of endocrinology and metabolic diseases, cardiology, kidney diseases, haematology and gastroenterology.

Grading:

Grading scale in intermediate examinations is 1-5. In the numerical scale zero stands for a fail.

The course unit Internal Medicine I utilizes mean scale of all intermediate examinations.

Person responsible:

Professor Olavi Ukkola
(olavi.ukkola@oulu.fi)

Working life cooperation:

Yes. Small group teaching, ward practice, practice in outpatient clinic and in the department of emergency.

Other information:

The course unit Internal Medicine II will be held during the fourth year.

The final grade of internal medicine (A540131) consists of the Internal Medicine I and Internal Medicine II.

Proportion of Internal Medicine I is 40% and proportion of Internal Medicine II is 60% in the final grade of internal medicine.

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080711A-06: Internal Medicine, haematology, 2 op

Voimassaolo: 01.08.2006 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Olavi Ukkola
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080711A-07: Internal Medicine, endocrinology, 3 op

Voimassaolo: 01.08.2006 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Olavi Ukkola
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080711A-08: Internal Medicine, gastroenterology, 3 op

Voimassaolo: 01.08.2006 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Savolainen, Markku
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080711A-09: Internal Medicine, ECG/cardiology, 3 op

Voimassaolo: 01.08.2006 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Huikuri, Heikki
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080711A-10: Internal Medicine, nephrology, 2 op

Voimassaolo: 01.08.2006 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Risto Ikäheimo
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080711A-12: Internal Medicine Emergency duties, 0,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Olavi Ukkola

Opintokohteen kielet: Finnish

Leikkaavuudet:

080701A-12 Emergency department/internal medicine 0.0 op

Ei opintojaksokuvauksia.

080711A-14: Internal Medicine Small group classes, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Olavi Ukkola

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080711A-15: Internal Medicine Themedays, 0,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Olavi Ukkola

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080711A-16: Internal Medicine Clinical practice, 1,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Olavi Ukkola

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080711A-19: Clinical examination, 0 op

Voimassaolo: 01.08.2013 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Olavi Ukkola
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080633A: Laboratory medicine, 3 op

Voimassaolo: 01.08.2013 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Risteli, Juha
Opintokohteen kielet: Finnish

ECTS Credits:

3.0 ECTS/ 80 hours of work

Language of instruction:

Suomi

Timing:

Timing C5-6

Learning outcomes:

Objectives By the end of the course the student can list the most frequently used tests in clinical chemistry and haematology and their indications and critical interpretation. The student can specify the facts that affect the deviation of the laboratory tests, biological variation, pre-analytical and analytical factors, and understand their importance in interpreting the test results. The student can standardize sample taking so that the above facts that increase the deviation in test results can be eliminated. The student can specify the basics of the quality control of the laboratory tests.

The student understands the feedback control systems in endocrinology and on this base can diagnose the common endocrine disorders and their reasons. The student can do the hormone determinations and indications to use them. The student can do the common weaknesses and disturbing factors of hormone determinations. The student knows how to diagnose heritable metabolic diseases and the use of cancer markers. The student knows the effects of childhood, pregnancy and older age on the laboratory methods. The student knows what methods are available in the health centres and how the student can order other methods available.

Contents:

Contents Lectures contain following subjects: Clinical Chemistry as a medical speciality, diagnostics of heart and vascular disorders, examination of kidneys and urinary tracts, clinical enzymology, examination of liver and gastrointestinal tract, laboratory tests in haematology, tests to analyze water, sodium and potassium balance, therapeutic drug monitoring and chemical toxicology, most frequently used laboratory test and their indications. Contents of small group practical courses: taking blood samples and preparation of samples for different tests, results of laboratory test in healthy individuals, reference ranges, sources of errors and their origin and quality controls of laboratory tests, basic blood cell count and microscopic examination of blood cells. Theoretical background of clinical endocrinology, hormone determinations, adrenal function and its disorders, hypothalamic and hypophysis hormones, the follow up of pregnancy by clinical chemical methods, endocrinology of aging, thyroid function and its disorders and calcium metabolism and its disorders. Analysing congenital heritable metabolic diseases and cancer markers.

Goal of the theme day: The students can perform to point of care tests.

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

Working methods Lectures 22 h, small group practical courses 6 h and one theme day. In addition the student has independent preparation for small group practical courses and for the theme day.

Target group:

Medical students in clinical phase

Prerequisites and co-requisites:

Candidate of Medicine

Recommended or required reading:

Study materials Textbook: Tietz Fundamentals of Clinical Chemistry and Molecular Diagnostics, 7th edition, CA Burtis, DE Bruns, 2015. Other textbooks: Veritaudit, Kustannus Oy Duodecim, K Porkka, R Lassila, K Remes, E-R Savolainen, 2015; Endokrinologia, Kustannus Oy Duodecim, M Välimäki, T Sane, L Dunkel, 2009.

Assessment methods and criteria:

Assessment methods Assessment is at the beginning based on multiple choice examination where lectures of basic laboratory medicine and beginning fourth of the textbook are tested. At the end there will be an essay examination based on materials given in lectures, small group practical courses, in textbooks and other materials given to the students.

Grading:

Numerical grading 0-5.

Person responsible:

Responsible person Professor Juha Risteli

Working life cooperation:

No

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080633A-01: Small group classes Clinical chemistry, 1 op

Voimassaolo: 01.08.2013 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Risteli, Juha

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080633A-02: Theme Day Laboratory medicine, 0,2 op

Voimassaolo: 01.08.2013 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Risteli, Juha

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080633A-03: Examination Laboratory medicine, 1,8 op

Voimassaolo: 01.08.2013 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Risteli, Juha

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

040039Y: Medical Biochemistry and Molecular Biology, clinical studies, 3rd period, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Faculty of Biochemistry and Molecular Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karppinen, Peppi Leena Elina

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080301A: Neurology, 6 - 6,5 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Majamaa, Kari Gunnar

Opintokohteen kielet: Finnish

Voidaan suorittaa useasti: Kyllä

ECTS Credits:

6 ECTS/ 162 hours of work

Language of instruction:

Finnish

Timing:

4th year, C7 – C8

Learning outcomes:

The course focuses on pathogenesis, diagnostics, treatment and prevention of common neurological diseases and rehabilitation of neurological patients. After completing this course the student should

- be able to carry out the neurological examination of the patient;
- be familiar with the diagnosis and management of common neurological illnesses;
- be familiar with ancillary investigations that are used for neurological evaluation;
- be familiar with current developments in the clinical neurosciences.

Contents:

The neurology course consists of an introductory course on clinical neurological examination and the main neurology course. Lectures will be given in Finnish and are voluntary. Small group sessions will be held in outpatient neurology clinic and neurology ward. Lumbar puncture will be practised with a torso simulated manikin. Each student also participates in the clinical evaluation of patients at the emergency department and at the neurology ward and examines patients under supervision at the outpatient clinic. Attendance is mandatory in small group sessions and emergency service. Course also includes seminars, three of them are mandatory. There is a written final exam in the end of the course.

Mode of delivery:

Blended teaching (web-based teaching and face to face teaching).

Learning activities and teaching methods:

- Introduction 2 h (in Finnish)
- Lectures 24 h
- Introductory course of clinical neurological examination 3 h
- Seminars 13 h
- Small group sessions at the outpatient clinic and neurology ward 14 h
- Service at neurology ward 12h including practicing lumbar puncture
- Practising at emergency department 5 h

Target group:

Medical students, C7-C8

Prerequisites and co-requisites:

All earlier studies in the curriculum of basic medical education.

Recommended optional programme components:

The course is performed simultaneously with other fourth year's courses.

Recommended or required reading:

Soinila S, Kaste M: Neurologia. Duodecim Oppiportti 8.9.2015 (<http://www.oppoportti.fi/op/opk04598>).

Kallela M, Häppölä O, Soinila S, Lindsberg P, Erkinjuntti T: Neurologinen status. Helsingin yliopisto, lääketieteellinen tiedekunta, kliininen laitos, neurotieteen osasto, 2011.

Assessment methods and criteria:

Attendance to all small group sessions and clinical examination of patients in neurology ward and emergency department, attendance to three seminars and passed examination.

A written final examination consists of five questions. The requirements of the final exam include the textbook, issues raised in the lectures, small group sessions and seminars. Zero points is allowed only in one question. In order to pass the exam the student must obtain half of the total points.

Grading:

The evaluation scale is 0-5 (0=fail, 5=excellent).

Person responsible:

Professor: Kari Majamaa (kari.majamaa@oulu.fi)

Working life cooperation:

In small group sessions held in outpatient neurology clinic and neurology ward. Each student also participates in the clinical evaluation of patients at the emergency department and at the neurology ward and examines patients under supervision at the outpatient clinic.

Other information:

Updated 22 JAN 2016

Compulsory

080301A-02: Neurology, obligatory demonstrations and seminars, 3 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Majamaa, Kari Gunnar

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080301A-03: Neurology, final exam, 3 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Majamaa, Kari Gunnar

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080304A: Neurosurgery, 3 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Sami Tetri

Opintokohteen kielet: Finnish

ECTS Credits:

3.0 ECTS credits/ 82 hours of work

Language of instruction:

Finnish

Timing:

C8

Learning outcomes:

After the course the student has knowledge of clinical manifestations, diagnostics and treatment of neurosurgical diseases from the general practitioners point of view. The student can evaluate the urgency of treatment of neurosurgical conditions and understands the life-threatening nature of these diseases.

Contents:

6 lectures (1,5 hours each)

2 group sessions

3 symposia (4 hours each)

Mode of delivery:

Lectures and symposia can be seen in internet through ConnectPro-system

Group sessions are face-to face teaching

Learning activities and teaching methods:

Lectures (12h) including patient demonstrations. Mandatory small group patient rounds and discussion (6h + 2h).

Three symposia.

Target group:

Medical students

Prerequisites and co-requisites:

The required prerequisite is the completion of the following courses prior to enrolling for the course unit: 040108A

General pathology; 080211A-01 Organ Pathology I

Recommended optional programme components:

No alternative course units.

Recommended or required reading:

Lindsay-Bone: Neurology and Neurosurgery Illustrated, latest edition.

Assessment methods and criteria:

The course requirements include participation in compulsory group sessions and passing the end-of-course examination.

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

Grading:

The evaluation scale is 1-5/fail.

Final examination (6 essay and multiple choice questions). At least half of the total points are needed to pass the test, and a minimum of 1 point per question must be achieved. One month clinical intership can enhance the grade.

Person responsible:

Professor Sami Tetri

Working life cooperation:

Alternatively, international students can also get full ETCS credits through the Erasmus program clinical elective. This requires full time (8.00 am – 3.45 pm) participation in all clinical activities for minimum of four weeks. For ETCS credits the above textbook final examination must be passed; it is usually taken during the last week of practice.

compuls21

080304A-01: Neurosurgery, small group rounds, 2 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Sami Tetri

Opintokohteen kielet: Finnish

ECTS Credits:

3.0 ECTS

Timing:

C8

Learning outcomes:

After the course student has knowledge of the clinical manifestations, diagnostics and treatment of neurosurgical diseases from the general practitioners point of view. The student can evaluate the urgency of treatment of neurosurgical conditions and understands the life-threatening nature of these diseases.

Learning activities and teaching methods:

Lectures (14h) including patient demonstrations. Mandatory small group patient rounds and discussion (8h). Four symposia.

Recommended or required reading:

Neurosurgical hand-out: Ukkola Veijo, koivukangas John, Heikkinen Esa, 50 pages (also available in the internet).

Lindsay-Bone: Neurology and Neurosurgery Illustrated, latest edition.

Grading:

Final examination (6 essay and multiple choice questions). At least half of the total points are needed to pass the test, and minimum of 1 point per question must be achieved. One month of clinical internship can enhance the grade.

Person responsible:

Professor John Koivukangas

Other information:

Alternatively, international students can also get full ETCS credits through the Erasmus program clinical elective. This requires full time (8.00 am - 3.45 pm) participation in all clinical activities for a minimum of four weeks. For ETCS credits the above textbook final examination must be passed: it is usually taken during the last week of practice.

080304A-02: Neurosurgery,final exam, 1 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Sami Tetri

Opintokohteen kielet: Finnish

ECTS Credits:

3.0 ECTS

Timing:

C8

Learning outcomes:

After the course student has knowledge of the clinical manifestations, diagnostics and treatment of neurosurgical diseases from the general practitioners point of view. The student can evaluate the urgency of treatment of neurosurgical conditions and understands the life-threatening nature of these diseases.

Learning activities and teaching methods:

Lectures (14h) including patient demonstrations. Mandatory small group patient rounds and discussion (8h). Four symposia.

Recommended or required reading:

Neurosurgical hand-out: Ukkola Veijo, koivukangas John, Heikkinen Esa, 50 pages (also available in the internet).

Lindsay-Bone: Neurology and Neurosurgery Illustrated, latest edition.

Grading:

Final examination (6 essay and multiple choice questions). At least half of the total points are needed to pass the test, and minimum of 1 point per question must be achieved. One month of clinical internship can enhance the grade.

Person responsible:

Professor John Koivukangas

Other information:

Alternatively, international students can also get full ETCS credits through the Erasmus program clinical elective. This requires full time (8.00 am - 3.45 pm) participation in all clinical activities for a minimum of four weeks. For ETCS credits the above textbook final examination must be passed: it is usually taken during the last week of practice.

080510A: OSCE, 0 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Uhari, Matti Kalervo

Opintokohteen kielet: Finnish

Voidaan suorittaa useasti: Kyllä

ECTS Credits:

0.0 ECTS

Language of instruction:

Finnish

Timing:

C10

The course unit is held in the spring semester

Learning outcomes:

To assess the abilities of student performance on the subjects of the 5th year curriculum.

Contents:

A joined examination of the subjects on the fifth year.

Mode of delivery:

Contact teaching

Learning activities and teaching methods:

Each student makes a circuit of about 15 stations comprising of practical tests in different disciplines. 8 minutes /station, 2 minutes for transferring between stations.

Total time about 2 hours 30 minutes

Target group:

Medical Students

Prerequisites and co-requisites:

The prerequisites for the course unit are previous studies (C1-10 course units)

Recommended optional programme components:

No alternative course units.

Recommended or required reading:

Textbooks and manuscripts of the fifth year.

Assessment methods and criteria:

The assessment of the course unit is based on the learning outcomes of the 5th year course units.

The examiner on each station assesses the performance of the student.

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

Grading:

Pass/fail in every single exam site.

The course is approved when all practical tests are approved.

The course unit utilizes verbal grading scale pass/ fail.

Person responsible:

Dos. Petri Kulmala

Working life cooperation:

No

Other information:

OSCE exam is compulsory examination for the fifth year students. The final grade of the course unit is required for the sixth year student.

080401A: Obstetrics and gynecology, 10 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Hannu Martikainen

Opintokohteen kielet: Finnish

ECTS Credits:

10,0 ECTS/ 267 hours of work

Language of instruction:

Finnish

Timing:

C9 and C10

The course unit is held in the autumn semester and spring semester

Learning outcomes:

After completing the course *Obstetrics and Gynecology* the student will have sufficient theoretical and practical knowledge in obstetrics and the most common gynecological illnesses, as well as the diagnostics, treatments and prevention thereof. Furthermore, the student will learn about a normal pregnancy, childbirth and puerperium. The course will provide the student skills required to work in a public health center as a general practitioner and to handle the treatment of acute cases

Contents:

Introduction: patient's anamnesis and examination, diagnosis and treatment plan, ultrasonography and other medical procedures, sexology.

Obstetrics: physiology of a pregnancy, planning and monitoring of pregnancy, monitoring of childbirth, puerperium.

Pregnancy complications: miscarriage and gynecological hemorrhage, pre-eclampsia or eclampsia, multiple pregnancy, fetal growth retardation, premature delivery and preterm loss of amniotic fluid, infections during pregnancy, 3rd trimester hemorrhaging and placental ablation, postpartum hemorrhaging, diabetes and pregnancy.

Gynecology: menstrual cycle, abnormal menstrual bleeding, sexually transmitted diseases and infections, birth control, sterilization, and termination of pregnancy, gynecological endocrinology and infertility.

Gynecological abnormalities: pelvic inflammatory disease (PID), uterine prolapse and incontinence, endometriosis, abnormal gynecological bleeding, infertility, benign and malignant tumors, hormonal replacement therapy and osteoporosis.

Mode of delivery:

Blended teaching

Learning activities and teaching methods:

Lectures 27 h

Theme-days 10 h

Student Congress 4 h

Practical training in Central Hospitals 40 hours

Small group teaching

- Group teaching 15 h

- Ward rounds and learning at wards, following of the own patient 22 h

- Outpatient clinic learning 17 h

- Maternity care center and health care center learning 4,5 h (learning diagnostics and treatment of real patients)

Problem based learning:

- guided teaching 16h

- without guidance either privately or in a group 24h

The admission exam 6 h (web-based)
 Week exams I, II and III (web-based) 6 h
 The Patient cases exam 4 h

Self-study (preparing for Theme-days, congress and exams) 95 h

Target group:

Medical students

Prerequisites and co-requisites:

The prerequisites for the course unit are previous studies (C1-8 course units).

The admission exam (web-based) should be passed.

Recommended optional programme components:

No alternative course units.

Recommended or required reading:

Text book:

Ylikorkala O., Tapanainen J. (edit.) Naistentaudit ja synnytykset. 5. edition. Kustannus Oy Duodecim, 2011.

Alternative reading :

*Campbell S, Monga A, Gynaecology by Ten Teachers, ISBN 0 340 74081 7, 2000, Oxford University Press, New York, USA, <http://www.arnoldpublishers.com>

*Campbell S, Lees C. Obstetrics by Ten Teachers, ISBN 0 340 74082 5, 2000, Oxford University Press, New York, USA, <http://www.arnoldpublishers.com>

*Lambrou N, Morse A, Wallach E. The Johns Hopkins Manual of Gynecology and Obstetrics, ISBN 0-7817-1890-2, Lippincot Williams & Wilkins, USA

Recommended reading :

*Martin L Pernoll. Current obstetric and gynaecologic diagnosis and treatment. Prentice-Hall Internat. Inc. (last ed.).

*E Malcolm Symonds. Essential obstetrics and gynaecology. Churchill Livingstone (last ed.).

Assessment methods and criteria:

The assessment of the course unit is based on the learning outcomes of the course unit.

The admission exam is multiple choice test. Required literature: text book. Exam should be passed.

Attending to all compulsory teaching
 (evaluated pass/fail)

Week exams I, II and III.
 Grading: 1-5/fail.

The Patient cases exam (final exam): evaluated from 0-48 points, approval limit is 24 points.
 Grading: 1-5/fail.

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

Grading:

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

The final grade of the course is formed of

Patient cases exam (70 %) and Week exams (30 %).

Person responsible:

Prof. Hannu Martikainen

Working life cooperation:

Each student will participate the work of gynecologist/obstetrician taking care of patients in one central hospital during one week.

In maternity care center and health care center learning diagnostics and treatment of real patients.

Other information:

multi-professional work

compuls27

080401A-01: Obstetrics and gynecology, entering exam, 0,5 - 1 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Hannu Martikainen

Opintokohteen kielet: Finnish

ECTS Credits:

11 op

Language of instruction:

Lectures will be given in Finnish. In case exchange students are participating in group instruction, the language of instruction will be English.

Timing:

5th study year C 9-10

Spring semester, weeks 7 – 18

Fall semester, weeks 33 – 42

Learning outcomes:

After completing the course *Obstetrics and Gynecology* the student will have sufficient theoretical and practical knowledge in obstetrics and the most common gynecological illnesses, as well as the diagnostics, treatments and prevention thereof. Furthermore, the student will learn about a normal pregnancy, childbirth and puerperium. The course will provide the student skills required to work in a public health center as a general practitioner and to handle the treatment of acute cases.

Contents:

Main Contents of Obstetrics and Gynecology in Basic Studies

Introduction: patient's anamnesis and examination, diagnosis and treatment plan, ultrasonography and other medical procedures, sexology, and violence against women.
 Obstetrics: physiology of a pregnancy, planning and monitoring of pregnancy, monitoring of childbirth, puerperium, birth control, sterilization, and termination of pregnancy.
 Pregnancy complications: miscarriage and gynecological hemorrhage, pre-eclampsia or eclampsia, multiple pregnancy, fetal growth retardation, premature delivery and preterm loss of amniotic fluid, infections during pregnancy, 3rd trimester hemorrhaging and ablation, postpartum hemorrhaging, diabetes and pregnancy.
 Gynecology: menstrual cycle, leucorrhea and abnormal menstrual bleeding, sexually transmitted diseases and infections, gynecological endocrinology and infertility.
 Gynecological abnormalities: pelvic inflammatory disease (PID), uterine prolapse and incontinence, endometriosis, abnormal gynecological bleeding, infertility, tumors, hormonal replacement therapy and osteoporosis.
 Optional courses: fetal diagnostics and genetic testing, characteristics of gynecological geriatrics, *Ethical problems* seminar, medicine in developing countries, global health, interaction.

Learning activities and teaching methods:

An online exam (www.oulugyn.net) must be completed prior to taking this course.

Group instruction will be provided at polyclinics, where 1-2 students at a time participate in running the practice of a specialist doctor or an intern. The students will be able to interview and examine patients under supervision. The group will spend a week in the maternity room, during which time each student will participate in a minimum of 5 deliveries. Furthermore, students will examine patients on the day prior to their scheduled

surgeries and participate in these operations. There will be two ultrasonogram demonstrations for each student. All specialist doctors and interns at the clinic have been recruited for instruction.

Instruction at public health centers and maternity-child health centers will be conducted in small groups of 2-3 students in the following health centers: Kempele Health Center (gynecological patients), and Tuira and Haukipudas Maternity-Child Health Center (maternity care). One student at a time will interview and examine a patient and perform necessary procedures (ultrasonogram, PAP smear and Pipelle sample, fluid loading, inserting an IUD). The student will make a suggested diagnosis, as well as suggest possible further examinations and treatment, which are later discussed in the group. The patient will also participate in the counsel regarding herself.

Prior to the in-group work the students will participate in **Fantom instruction** (1,5 hrs), which will prepare the students for patient examinations.

Lectures 31 hrs.

Morning meetings. Wednesday mornings at 8.15 – 9.00. Students may wish to participate in the scientific meetings of the clinic.

Problem-Based-Learning (PBL): (10 sessions, 2 hrs each, and literature research, total of 30 hrs.)

Students will work on actual patients' cases, set learning goals for themselves and learn by using professional literature and information from the internet.

Group instruction: 9 times, 2 hrs each, total of 18 hrs.

- Kempele Health Center, Höyhtyä and Haukipudas Maternity-Child Health Centers, 3 hrs each, total of 9 hrs.

- Maternity and Gynecology Polyclinics and Wards, included in group instruction.

- Maternity Room instruction, included in group instruction.

- Examining patients scheduled for surgery and participating in the operation, included in group instruction.

- Ultrasonogram demonstration / examination ward, included in group instruction .

Hospital On-Call

Students will participate in on-call duties with the on-call Ob Gyn doctor at the Oulu University Hospital, total of 6 hrs.

Theme Days

Acute abdomen: carried out in co-operation with the Clinic for Surgery and Radiology, total of 3 hrs. Students will be introduced to the main illnesses leading to an acute situation, as well as examining and treating them.

Pediatrics' Theme Day: toxication, narcotics and alcohol, 4 hrs.

Students will learn about the effects of substance abuse on the mother and fetus / child.

Sexology: carried out in co-operation with the Dermatology Clinic, total of 4 hrs.

Students will be divided into 6 groups; each group will prepare a 10 minute PowerPoint presentation on a given subject (sexually transmitted diseases). The group will also prepare commentary statements about two of the other groups' presentations. Students will also participate in 2 hrs of lectures on sexology.

Minisymposium Gynecological cancer, 4 hrs.

Course Congress

Students are divided into 6 groups. Each group will prepare a poster and a 10 minute PowerPoint presentation on a given subject. The presentation will be given by one member of the group. Furthermore, the group will prepare commentary statements about two of the other groups' presentations.

Instruction at a Central Hospital

Working at a central hospital will give students good insight on the praxis of our specialty outside the university hospital. It will also help students in learning practical skills and procedures. Each student will work at a central hospital under the supervision of local chief physicians for one week. At the hospital students will gain experience in the practices of the specialty as well as gradation of care.

Recommended optional programme components:

Theme Days are carried out in co-operation with other clinics.

Recommended or required reading:

Primary :

Ylikorkala O, Kauppila A. Naistentaudit ja synnytykset. Kustannus Oy Duodecim, 2001.
(New edition in the fall 2004)

Alternative, for foreigners :

Callahan T, Caughey A, Heffner L. Blueprints in Obstetrics & Gynecology, ISBN 0-86542-505, 1998 Blackwell Science, USA

Campbell S, Monga A, Gynaecology by Ten Teachers, ISBN 0 340 74081 7, 2000, Oxford University Press, New York, USA, <http://www.arnoldpublishers.com>

Campbell S, Lees C. Obstetrics by Ten Teachers, ISBN 0 340 74082 5, 2000, Oxford University Press, New York, USA, <http://www.arnoldpublishers.com>

Lambrou N, Morse A, Wallach E. The Johns Hopkins Manual of Gynecology and Obstetrics, ISBN 0-7817-1890-2, Lippincot Williams & Wilkins, USA

Complementary:

Martin L Pernoll. Current obstetric and gynaecologic diagnosis and treatment. Prentice-Hall Internat. Inc. (latest edition).

E Malcolm Symonds. Essential obstetrics and gynaecology. Churchill Livingstone (latest edition).

Assessment methods and criteria:

Participating in lectures is voluntary; however, other instruction is mandatory. To complete the course, the student must submit a logbook, showing the his/her attendance

in mandatory instruction. All examinations (pre-course exam, weekly exam, multiple choice and patient case exams) must be passed. The student also must return the mandatory feedback form.

Grading:

The final grade consists of a two part final exam (multiple choice and patient case), an exam as well as active participation in PBL-teaching. The maximum is 100 points.

Grading: 0 = fail, 1-5 = pass. A passed grade consists of approved attendance and a minimum of 50 points in exams. The Objective Structured Clinical Examination (OSCE) exam will not be included in the final grade.

Person responsible:

Professor Markku Ryyänen

Other information:

A prerequisite for participation is completing all previous study units.

080401A-02: Obstetrics and gynecology, week exams I, II, III, 1 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Hannu Martikainen

Opintokohteen kielet: Finnish

ECTS Credits:

11 op

Language of instruction:

Lectures will be given in Finnish. In case exchange students are participating in group instruction, the language of instruction will be English.

Timing:

5th study year C 9-10

Spring semester, weeks 7 – 18

Fall semester, weeks 33 – 42

Learning outcomes:

After completing the course *Obstetrics and Gynecology* the student will have sufficient theoretical and practical knowledge in obstetrics and the most common gynecological illnesses, as well as the diagnostics, treatments and prevention thereof. Furthermore, the student will learn about a normal pregnancy, childbirth and puerperium. The course will provide the student skills required to work in a public health center as a general practitioner and to handle the treatment of acute cases.

Contents:

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Pregnancy complications: miscarriage and gynecological hemorrhage, pre-eclampsia or eclampsia, multiple pregnancy, fetal growth retardation, premature delivery and preterm loss of amniotic fluid, infections during pregnancy, 3rd trimester hemorrhaging and ablation, postpartum hemorrhaging, diabetes and pregnancy.

Gynecology: menstrual cycle, leucorrhea and abnormal menstrual bleeding, sexually transmitted diseases and infections, gynecological endocrinology and infertility.

Gynecological abnormalities: pelvic inflammatory disease (PID), uterine prolapse and incontinence, endometriosis, abnormal gynecological bleeding, infertility, tumors, hormonal replacement therapy and osteoporosis.

Optional courses: fetal diagnostics and genetic testing, characteristics of gynecological geriatrics, *Ethical problems* seminar, medicine in developing countries, global health, interaction.

Learning activities and teaching methods:

An online exam (www.oulugyn.net) must be completed prior to taking this course.

Group instruction will be provided at policlinics, where 1-2 students at a time participate in running the practice of a specialist doctor or an intern. The students will be able to interview and examine patients under supervision. The group will spend a week in the maternity room, during which time each student will participate in a minimum of 5 deliveries. Furthermore, students will examine patients on the day prior to their scheduled surgeries and participate in these operations. There will be two ultrasonogram demonstrations for each student. All specialist doctors and interns at the clinic have been recruited for instruction.

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Prior to the in-group work the students will participate in **Fantom instruction** (1,5 hrs), which will prepare the students for patient examinations.

Lectures 31 hrs.

Morning meetings. Wednesday mornings at 8.15 – 9.00. Students may wish to participate in the scientific meetings of the clinic.

Problem-Based-Learning (PBL): (10 sessions, 2 hrs each, and literature research, total of 30 hrs.)

Students will work on actual patients' cases, set learning goals for themselves and learn by using professional literature and information from the internet.

Group instruction: 9 times, 2 hrs each, total of 18 hrs.

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- Maternity and Gynecology Policlinics and Wards, included in group instruction.
- Maternity Room instruction, included in group instruction.

- Examining patients scheduled for surgery and participating in the operation, included in group instruction.
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Students will participate in on-call duties with the on-call Ob Gyn doctor at the Oulu University Hospital, total of 6 hrs.

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Pediatrics' Theme Day: toxication, narcotics and alcohol, 4 hrs.

Students will learn about the effects of substance abuse on the mother and fetus / child.

Sexology: carried out in co-operation with the Dermatology Clinic, total of 4 hrs.

Students will be divided into 6 groups; each group will prepare a 10 minute PowerPoint presentation on a given subject (sexually transmitted diseases). The group will also prepare commentary statements about two of the other groups' presentations. Students will also participate in 2 hrs of lectures on sexology.

Minisymposium Gynecological cancer, 4 hrs.

Course Congress

Students are divided into 6 groups. Each group will prepare a poster and a 10 minute PowerPoint presentation on a given subject. The presentation will be given by one member of the group. Furthermore, the group will prepare commentary statements about two of the other groups' presentations.

Instruction at a Central Hospital

Working at a central hospital will give students good insight on the praxis of our specialty outside the university hospital. It will also help students in learning practical skills and procedures. Each student will work at a central hospital under the supervision of local chief physicians for one week. At the hospital students will gain experience in the practices of the specialty as well as gradation of care.

Recommended optional programme components:

Theme Days are carried out in co-operation with other clinics.

Recommended or required reading:

Primary :

Ylikorkala O, Kauppila A. Naistentaudit ja synnytykset. Kustannus Oy Duodecim, 2001. (New edition in the fall 2004)

Alternative, for foreigners :

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Campbell S, Monga A, Gynaecology by Ten Teachers, ISBN 0 340 74081 7, 2000, Oxford University Press, New York, USA, <http://www.arnoldpublishers.com>

Campbell S, Lees C. Obstetrics by Ten Teachers, ISBN 0 340 74082 5, 2000, Oxford University Press, New York, USA, <http://www.arnoldpublishers.com>

Lambrou N, Morse A, Wallach E. The Johns Hopkins Manual of Gynecology and Obstetrics, ISBN 0-7817-1890-2, Lippincott Williams & Wilkins, USA

Complementary:

Martin L Pernoll. Current obstetric and gynaecologic diagnosis and treatment. Prentice-Hall Internat. Inc. (latest edition).

E Malcolm Symonds. Essential obstetrics and gynaecology. Churchill Livingstone (latest edition).

Assessment methods and criteria:

Participating in lectures is voluntary; however, other instruction is mandatory. To complete the course, the student must submit a logbook, showing the his/her attendance in mandatory instruction. All examinations (pre-course exam, weekly exam, multiple choice and patient case exams) must be passed. The student also must return the mandatory feedback form.

Grading:

The final grade consists of a two part final exam (multiple choice and patient case), an exam as well as active participation in PBL-teaching. The maximum is 100 points. Grading: 0 = fail, 1-5 = pass. A passed grade consists of approved attendance and a minimum of 50 points in exams. The Objective Structured Clinical Examination (OSCE) exam will not be included in the final grade.

Person responsible:

Professor Markku Rynänen

Other information:

A prerequisite for participation is completing all previous study units.

080401A-03: Obstetrics and gynecology, 2 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Hannu Martikainen

Opintokohteen kielet: Finnish

ECTS Credits:

11 op

Language of instruction:

Lectures will be given in Finnish. In case exchange students are participating in group instruction, the language of instruction will be English.

Timing:

5th study year C 9-10

Spring semester, weeks 7 – 18

Fall semester, weeks 33 – 42

Learning outcomes:

After completing the course *Obstetrics and Gynecology* the student will have sufficient theoretical and practical knowledge in obstetrics and the most common gynecological illnesses, as well as the diagnostics, treatments and prevention thereof. Furthermore, the student will learn about a normal pregnancy, childbirth and puerperium. The course will provide the student skills required to work in a public health center as a general practitioner and to handle the treatment of acute cases.

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 Obstetrics: physiology of a pregnancy, planning and monitoring of pregnancy, monitoring of childbirth, puerperium, birth control, sterilization, and termination of pregnancy.
 Pregnancy complications: miscarriage and gynecological hemorrhage, pre-eclampsia or eclampsia, multiple pregnancy, fetal growth retardation, premature delivery and preterm loss of amniotic fluid, infections during pregnancy, 3rd trimester hemorrhaging and ablation, postpartum hemorrhaging, diabetes and pregnancy.
 Gynecology: menstrual cycle, leucorrhoea and abnormal menstrual bleeding, sexually transmitted diseases and infections, gynecological endocrinology and infertility.
 Gynecological abnormalities: pelvic inflammatory disease (PID), uterine prolapse and incontinence, endometriosis, abnormal gynecological bleeding, infertility, tumors, hormonal replacement therapy and osteoporosis.
 Optional courses: fetal diagnostics and genetic testing, characteristics of gynecological geriatrics, *Ethical problems* seminar, medicine in developing countries, global health, interaction.

Learning activities and teaching methods:

An online exam (www.oulugyn.net) must be completed prior to taking this course.

Group instruction will be provided at policlinics, where 1-2 students at a time participate in running the practice of a specialist doctor or an intern. The students will be able to interview and examine patients under supervision. The group will spend a week in the maternity room, during which time each student will participate in a minimum of 5 deliveries. Furthermore, students will examine patients on the day prior to their scheduled surgeries and participate in these operations. There will be two ultrasonogram demonstrations for each student. All specialist doctors and interns at the clinic have been recruited for instruction.

Instruction at public health centers and maternity-child health centers will be conducted in small groups of 2-3 students in the following health centers: Kempele Health Center (gynecological patients), and Tuira and Haukipudas Maternity-Child Health Center (maternity care). One student at a time will interview and examine a patient and perform necessary procedures (ultrasonogram, PAP smear and Pipelle sample, fluid loading, inserting an IUD). The student will make a suggested diagnosis, as well as suggest

possible further examinations and treatment, which are later discussed in the group. The patient will also participate in the counsel regarding herself.

Prior to the in-group work the students will participate in **Fantom instruction** (1,5 hrs), which will prepare the students for patient examinations.

Lectures 31 hrs.

Morning meetings. Wednesday mornings at 8.15 – 9.00. Students may wish to participate in the scientific meetings of the clinic.

Problem-Based-Learning (PBL): (10 sessions, 2 hrs each, and literature research, total of 30 hrs.)

Students will work on actual patients' cases, set learning goals for themselves and learn by using professional literature and information from the internet.

Group instruction: 9 times, 2 hrs each, total of 18 hrs.

- Kempele Health Center, Höyhtyä and Haukipudas Maternity-Child Health Centers, 3 hrs each, total of 9 hrs.

- Maternity and Gynecology Policlinics and Wards, included in group instruction.

- Maternity Room instruction, included in group instruction.

- Examining patients scheduled for surgery and participating in the operation, included in group instruction.

- Ultrasonogram demonstration / examination ward, included in group instruction .

Hospital On-Call

Students will participate in on-call duties with the on-call Ob Gyn doctor at the Oulu University Hospital, total of 6 hrs.

Theme Days

Acute abdomen: carried out in co-operation with the Clinic for Surgery and Radiology, total of 3 hrs. Students will be introduced to the main illnesses leading to an acute situation, as well as examining and treating them.

Pediatrics' Theme Day: toxication, narcotics and alcohol, 4 hrs.

Students will learn about the effects of substance abuse on the mother and fetus / child.

Sexology: carried out in co-operation with the Dermatology Clinic, total of 4 hrs.

Students will be divided into 6 groups; each group will prepare a 10 minute PowerPoint presentation on a given subject (sexually transmitted diseases). The group will also prepare commentary statements about two of the other groups' presentations. Students will also participate in 2 hrs of lectures on sexology.

Minisymposium Gynecological cancer, 4 hrs.

Course Congress

Students are divided into 6 groups. Each group will prepare a poster and a 10 minute PowerPoint presentation on a given subject. The presentation will be given by one member of the group. Furthermore, the group will prepare commentary statements about two of the other groups' presentations.

Instruction at a Central Hospital

Working at a central hospital will give students good insight on the praxis of our specialty outside the university hospital. It will also help students in learning practical skills and

procedures. Each student will work at a central hospital under the supervision of local chief physicians for one week. At the hospital students will gain experience in the practices of the specialty as well as gradation of care.

Recommended optional programme components:

Theme Days are carried out in co-operation with other clinics.

Recommended or required reading:

Primary :

Ylikorkala O, Kauppila A. Naistentaudit ja synnytykset. Kustannus Oy Duodecim, 2001. (New edition in the fall 2004)

Alternative, for foreigners :

Callahan T, Caughey A, Heffner L. Blueprints in Obstetrics & Gynecology, ISBN 0-86542-505, 1998 Blackwell Science, USA

Campbell S, Monga A, Gynaecology by Ten Teachers, ISBN 0 340 74081 7, 2000, Oxford University Press, New York, USA, <http://www.arnoldpublishers.com>

Campbell S, Lees C. Obstetrics by Ten Teachers, ISBN 0 340 74082 5, 2000, Oxford University Press, New York, USA, <http://www.arnoldpublishers.com>

Lambrou N, Morse A, Wallach E. The Johns Hopkins Manual of Gynecology and Obstetrics, ISBN 0-7817-1890-2, Lippincot Williams & Wilkins, USA

Complementary:

Martin L Pernoll. Current obstetric and gynaecologic diagnosis and treatment. Prentice-Hall Internat. Inc. (latest edition).

E Malcolm Symonds. Essential obstetrics and gynaecology. Churchill Livingstone (latest edition).

Assessment methods and criteria:

Participating in lectures is voluntary; however, other instruction is mandatory. To complete the course, the student must submit a logbook, showing the his/her attendance in mandatory instruction. All examinations (pre-course exam, weekly exam, multiple choice and patient case exams) must be passed. The student also must return the mandatory feedback form.

Grading:

The final grade consists of a two part final exam (multiple choice and patient case), an exam as well as active participation in PBL-teaching. The maximum is 100 points.

Grading: 0 = fail, 1-5 = pass. A passed grade consists of approved attendance and a minimum of 50 points in exams. The Objective Structured Clinical Examination (OSCE) exam will not be included in the final grade.

Person responsible:

Professor Markku Ryyänen

Other information:

A prerequisite for participation is completing all previous study units.

080401A-05: Obstetrics and gynecology, log book, 4,5 - 5 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Hannu Martikainen

Opintokohteen kielet: Finnish

ECTS Credits:

11 op

Language of instruction:

Lectures will be given in Finnish. In case exchange students are participating in group instruction, the language of instruction will be English.

Timing:

5th study year C 9-10

Spring semester, weeks 7 – 18

Fall semester, weeks 33 – 42

Learning outcomes:

After completing the course *Obstetrics and Gynecology* the student will have sufficient theoretical and practical knowledge in obstetrics and the most common gynecological illnesses, as well as the diagnostics, treatments and prevention thereof. Furthermore, the student will learn about a normal pregnancy, childbirth and puerperium. The course will provide the student skills required to work in a public health center as a general practitioner and to handle the treatment of acute cases.

Contents:

Main Contents of Obstetrics and Gynecology in Basic Studies

Introduction: patient's anamnesis and examination, diagnosis and treatment plan, ultrasonography and other medical procedures, sexology, and violence against women.
 Obstetrics: physiology of a pregnancy, planning and monitoring of pregnancy, monitoring of childbirth, puerperium, birth control, sterilization, and termination of pregnancy.
 Pregnancy complications: miscarriage and gynecological hemorrhage, pre-eclampsia or eclampsia, multiple pregnancy, fetal growth retardation, premature delivery and preterm loss of amniotic fluid, infections during pregnancy, 3rd trimester hemorrhaging and ablation, postpartum hemorrhaging, diabetes and pregnancy.
 Gynecology: menstrual cycle, leucorrhea and abnormal menstrual bleeding, sexually transmitted diseases and infections, gynecological endocrinology and infertility.
 Gynecological abnormalities: pelvic inflammatory disease (PID), uterine prolapse and incontinence, endometriosis, abnormal gynecological bleeding, infertility, tumors, hormonal replacement therapy and osteoporosis.
 Optional courses: fetal diagnostics and genetic testing, characteristics of gynecological geriatrics, *Ethical problems* seminar, medicine in developing countries, global health, interaction.

Learning activities and teaching methods:

An online exam (www.oulugyn.net) must be completed prior to taking this course. Group instruction will be provided at policlinics, where 1-2 students at a time participate in running the practice of a specialist doctor or an intern. The students will be able to interview and examine patients under supervision. The group will spend a week in the maternity room, during which time each student will participate in a minimum of 5 deliveries. Furthermore, students will examine patients on the day prior to their scheduled surgeries and participate in these operations. There will be two ultrasonogram demonstrations for each student. All specialist doctors and interns at the clinic have been recruited for instruction.

Instruction at public health centers and maternity-child health centers will be conducted in small groups of 2-3 students in the following health centers: Kempele Health Center (gynecological patients), and Tuira and Haukipudas Maternity-Child Health Center (maternity care). One student at a time will interview and examine a patient and perform necessary procedures (ultrasonogram, PAP smear and Pipelle sample, fluid loading, inserting an IUD). The student will make a suggested diagnosis, as well as suggest possible further examinations and treatment, which are later discussed in the group. The patient will also participate in the counsel regarding herself.

Prior to the in-group work the students will participate in **Fantom instruction** (1,5 hrs), which will prepare the students for patient examinations.

Lectures 31 hrs.

Morning meetings. Wednesday mornings at 8.15 – 9.00. Students may wish to participate in the scientific meetings of the clinic.

Problem-Based-Learning (PBL): (10 sessions, 2 hrs each, and literature research, total of 30 hrs.)

Students will work on actual patients' cases, set learning goals for themselves and learn by using professional literature and information from the internet.

Group instruction: 9 times, 2 hrs each, total of 18 hrs.

- Kempele Health Center, Höyhtyä and Haukipudas Maternity-Child Health Centers, 3 hrs each, total of 9 hrs.
- Maternity and Gynecology Policlinics and Wards, included in group instruction.
- Maternity Room instruction, included in group instruction.
- Examining patients scheduled for surgery and participating in the operation, included in group instruction.
- Ultrasonogram demonstration / examination ward, included in group instruction .

Hospital On-Call

Students will participate in on-call duties with the on-call Ob Gyn doctor at the Oulu University Hospital, total of 6 hrs.

Theme Days

Acute abdomen: carried out in co-operation with the Clinic for Surgery and Radiology, total of 3 hrs. Students will be introduced to the main illnesses leading to an acute situation, as well as examining and treating them.

Pediatrics' Theme Day: toxication, narcotics and alcohol, 4 hrs.

Students will learn about the effects of substance abuse on the mother and fetus / child. Sexology: carried out in co-operation with the Dermatology Clinic, total of 4 hrs. Students will be divided into 6 groups; each group will prepare a 10 minute PowerPoint presentation on a given subject (sexually transmitted diseases). The group will also prepare commentary statements about two of the other groups' presentations. Students will also participate in 2 hrs of lectures on sexology.

Minisymposium Gynecological cancer, 4 hrs.

Course Congress

Students are divided into 6 groups. Each group will prepare a poster and a 10 minute PowerPoint presentation on a given subject. The presentation will be given by one member of the group. Furthermore, the group will prepare commentary statements about two of the other groups' presentations.

Instruction at a Central Hospital

Working at a central hospital will give students good insight on the praxis of our specialty outside the university hospital. It will also help students in learning practical skills and procedures. Each student will work at a central hospital under the supervision of local chief physicians for one week. At the hospital students will gain experience in the practices of the specialty as well as gradation of care.

Recommended optional programme components:

Theme Days are carried out in co-operation with other clinics.

Recommended or required reading:

Primary :

Ylikorkala O, Kauppila A. Naistentaudit ja synnytykset. Kustannus Oy Duodecim, 2001. (New edition in the fall 2004)

Alternative, for foreigners :

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Campbell S, Monga A, Gynaecology by Ten Teachers, ISBN 0 340 74081 7, 2000, Oxford University Press, New York, USA, <http://www.arnoldpublishers.com>

Campbell S, Lees C. Obstetrics by Ten Teachers, ISBN 0 340 74082 5, 2000, Oxford University Press, New York, USA, <http://www.arnoldpublishers.com>

Lambrou N, Morse A, Wallach E. The Johns Hopkins Manual of Gynecology and Obstetrics, ISBN 0-7817-1890-2, Lippincot Williams & Wilkins, USA

Complementary:

Martin L Pernoll. Current obstetric and gynaecologic diagnosis and treatment. Prentice-Hall Internat. Inc. (latest edition).

E Malcolm Symonds. Essential obstetrics and gynaecology. Churchill Livingstone (latest edition).

Assessment methods and criteria:

Participating in lectures is voluntary; however, other instruction is mandatory. To complete the course, the student must submit a logbook, showing the his/her attendance in mandatory instruction. All examinations (pre-course exam, weekly exam, multiple choice and patient case exams) must be passed. The student also must return the mandatory feedback form.

Grading:

The final grade consists of a two part final exam (multiple choice and patient case), an exam as well as active participation in PBL-teaching. The maximum is 100 points. Grading: 0 = fail, 1-5 = pass. A passed grade consists of approved attendance and a minimum of 50 points in exams. The Objective Structured Clinical Examination (OSCE) exam will not be included in the final grade.

Person responsible:

Professor Markku Ryyänen

Other information:

A prerequisite for participation is completing all previous study units.

080401A-06: Obstetrics and gynecology, exam, 2 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Hannu Martikainen

Opintokohteen kielet: Finnish

ECTS Credits:

11 op

Language of instruction:

Lectures will be given in Finnish. In case exchange students are participating in group instruction, the language of instruction will be English.

Timing:

5th study year C 9-10

Spring semester, weeks 7 – 18

Fall semester, weeks 33 – 42

Learning outcomes:

After completing the course *Obstetrics and Gynecology* the student will have sufficient theoretical and practical knowledge in obstetrics and the most common gynecological illnesses, as well as the diagnostics, treatments and prevention thereof. Furthermore, the student will learn about a normal pregnancy, childbirth and puerperium. The course will provide the student skills required to work in a public health center as a general practitioner and to handle the treatment of acute cases.

Contents:**Main Contents of Obstetrics and Gynecology in Basic Studies**

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 Obstetrics: physiology of a pregnancy, planning and monitoring of pregnancy, monitoring of childbirth, puerperium, birth control, sterilization, and termination of pregnancy.
 Pregnancy complications: miscarriage and gynecological hemorrhage, pre-eclampsia or eclampsia, multiple pregnancy, fetal growth retardation, premature delivery and preterm loss of amniotic fluid, infections during pregnancy, 3rd trimester hemorrhaging and ablation, postpartum hemorrhaging, diabetes and pregnancy.
 Gynecology: menstrual cycle, leucorrhea and abnormal menstrual bleeding, sexually transmitted diseases and infections, gynecological endocrinology and infertility.
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 Optional courses: fetal diagnostics and genetic testing, characteristics of gynecological geriatrics, *Ethical problems* seminar, medicine in developing countries, global health, interaction.

Learning activities and teaching methods:

An online exam (www.oulugyn.net) must be completed prior to taking this course.

Group instruction will be provided at policlinics, where 1-2 students at a time participate in running the practice of a specialist doctor or an intern. The students will be able to interview and examine patients under supervision. The group will spend a week in the maternity room, during which time each student will participate in a minimum of 5 deliveries. Furthermore, students will examine patients on the day prior to their scheduled surgeries and participate in these operations. There will be two ultrasonogram demonstrations for each student. All specialist doctors and interns at the clinic have been recruited for instruction.

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Theme Days

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Students will be divided into 6 groups; each group will prepare a 10 minute PowerPoint presentation on a given subject (sexually transmitted diseases). The group will also prepare commentary statements about two of the other groups' presentations. Students will also participate in 2 hrs of lectures on sexology.

Minisymposium Gynecological cancer, 4 hrs.

Course Congress

Students are divided into 6 groups. Each group will prepare a poster and a 10 minute PowerPoint presentation on a given subject. The presentation will be given by one member of the group. Furthermore, the group will prepare commentary statements about two of the other groups' presentations.

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Recommended optional programme components:

Theme Days are carried out in co-operation with other clinics.

Recommended or required reading:

Primary :

Ylikorkala O, Kauppila A. Naistentaudit ja synnytykset. Kustannus Oy Duodecim, 2001.
(New edition in the fall 2004)

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Campbell S, Lees C. Obstetrics by Ten Teachers, ISBN 0 340 74082 5, 2000, Oxford University Press, New York, USA, <http://www.arnoldpublishers.com>

Lambrou N, Morse A, Wallach E. The Johns Hopkins Manual of Gynecology and Obstetrics, ISBN 0-7817-1890-2, Lippincot Williams & Wilkins, USA

Complementary:

Martin L Pernoll. Current obstetric and gynaecologic diagnosis and treatment. Prentice-Hall Internat. Inc. (latest edition).

E Malcolm Symonds. Essential obstetrics and gynaecology. Churchill Livingstone (latest edition).

Assessment methods and criteria:

Participating in lectures is voluntary; however, other instruction is mandatory. To complete the course, the student must submit a logbook, showing the his/her attendance in mandatory instruction. All examinations (pre-course exam, weekly exam, multiple choice and patient case exams) must be passed. The student also must return the mandatory feedback form.

Grading:

The final grade consists of a two part final exam (multiple choice and patient case), an exam as well as active participation in PBL-teaching. The maximum is 100 points. Grading: 0 = fail, 1-5 = pass. A passed grade consists of approved attendance and a minimum of 50 points in exams. The Objective Structured Clinical Examination (OSCE) exam will not be included in the final grade.

Person responsible:

Professor Markku Rynänen

Other information:

A prerequisite for participation is completing all previous study units.

080410A: Occupational health, 2 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Leena Ala-Mursula

Opintokohteen kielet: Finnish

ECTS Credits:

2.0 ECTS credits / 54 hours of work

Language of instruction:

The course is held in Finnish.

Timing:

The course is held in the 6th year, C11.

Learning outcomes:

Upon completion of the course, the student is able to consider work-related origins of ill health, as well as the aspect of promoting work ability as a part of all medical practising.

The student will be able to understand the structure of the Finnish Occupational Health Care system and the principles of co-operation with the system, both within the Health Care and with the workplaces.

Contents:

The Finnish Occupational Health Care (OHC) system and the guidelines and practices of co-operation between the working life and the health care sector.

Relationship between work and health, work-related diseases, occupational diseases.

Assessment of and possibilities of supporting work ability.

Mode of delivery:

Face-to-face tuition is used

Learning activities and teaching methods:

There will be 14 hours of Lectures and 10 hours of guided group teaching. Activating methods are utilized in all teaching. The remaining 30 hours of self-study is partly conducted as a self-guided group work preparing material for the group tuition.

Target group:

Medical students in their 6th year, C11.

Prerequisites and co-requisites:

The earlier studies in the curriculum of basic medical education.

Recommended or required reading:

Material is mainly in Finnish, see left column.

Assessment methods and criteria:

The students' progress towards the learning goals is discussed and supported in the group tuitions, which are based on the presentations and documents prepared by the students.

The passing of the course examination is required.

An anonymous electronic survey for evaluation and feedback is organized after the course, asking e.g. the students' self-perception of reaching the central learning goals of the course.

Feedback of the feedback is provided to the students in the electronic learning environment, including an overview of the performance in the examination and the ideas received for further development of the tuition.

Grading:

Pass/Fail

Person responsible:

Leena Ala-Mursula

Acting Professor, Occupational Health

Working life cooperation:

No

080204A: Oncology, 4 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karihtala, Peeter Johannes, Turpeenniemi-Hujanen, Taina Marjatta

Opintokohteen kielet: Finnish

ECTS Credits:

4.0 ECTS credits /107 hours of work

Language of instruction:

Tuition shall be arranged in Finnish.

Timing:

The course unit is held in the end of the autumn semester (September-December).

Learning outcomes:

Upon completion of this curricular unit, student should be able to understand principles of cancer ethiology, diagnosis, therapeutic modalities and will be able to give basic chemotherapies based on instructions. In addition, student will be able to detect and treat possible adverse events of therapeutic modalities, organize outpatients controls of common malignancies and advise patients to rehabilitation after cancer therapy. Furthermore, the student will be able to master principles of palliative care and consult a specialist when needed.

Contents:

The diagnostics, oncological therapeutic modalities and monitoring of solid cancers and lymphomas

Mode of delivery:

The tuition will be implemented as blended teaching.

Learning activities and teaching methods:

Lectures 33 h/ Small Group Teaching 10h/ Oncological Seminars 10h

Preliminary Examination 3 h (online)

Final Examination 2 h

Target group:

Target groups are the 5-6th year medical students (MD).

Prerequisites and co-requisites:

The required prerequisite for participation to the course unit is the completion of 5 years of medical studies.

Recommended optional programme components:

Teaching is also given during other courses (neurology, urology, plastic surgery, anesthesiology)

Recommended or required reading:

Joensuu, Roberts, Teppo, Tenhunen: Syöpätaudit, last edition, Kustannus Oy Duodecim

UICC: TNM-luokituskirja ja UICC Clinical Oncology, viim.painos.

Recommended literature:

Joensuu H, Kouri M, Ojala A, Tenhunen M, Teppo L: Kliininen sädehoito. Duodecim viim.painos. Vainio A, Hietanen P: Palliatiivinen hoito. Duodecim viim.painos.

Lahtinen T, Holsti LR: Kliininen säteilybiologia. Duodecim viim.painos.

MacDonald IS: Palliative Medicine. Oxford Univ Press 1998. Bomford CK & Kunkler IH: Walter and Miller's Textbook of Radiotherapy. Radiation Physics, Therapy and Oncology. Churchill Livingstone 2003.

Elonen E, Järviluoma E: Solunsalpaajaopas. Duodecim viim.painos.

Kallanranta T, Rissanen P, Viikkumaa I: Kuntoutus. Duodecim viim.painos.

Hänninen: Saattohoito. Duodecim viim.painos.

Assessment methods and criteria:

During the course unit, there are preliminary and final exams. Both of them should be passed. In addition, passing of preliminary exam is required before the final exam.

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

Grading:

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for fail.

Person responsible:

Taina Turpeenniemi-Hujanen, Professor

Peeter Karihtala, Clinical lecturer

Jussi Koivunen, Clinical lecturer

Working life cooperation:

Yes, Students will examine cancer patients at an outpatient clinic and at ward round (8h)

080303A: Ophthalmology, 4 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Aura Falck

Opintokohteen kielet: Finnish

ECTS Credits:

4 ECTS Credits/108 hours

Language of instruction:

English (but lectures are in Finnish)

Timing:

(C9-10)

Learning outcomes:

The course of ophthalmology is focused on learning basic ophthalmology and skills needed for working in general practise. After completing the course the student will have basic knowledge of symptoms, diagnostics and treatment options of ophthalmic diseases and of relationship of systemic diseases and ophthalmic problems. The student will be able to examine vision and eye health for purposes of health check up, screening a child's vision, treatment of common eye diseases and assessing the need and urgency for consultation.

Contents:

Examination of eyes and visual acuity and treatment of ophthalmic diseases focusing on the skills needed as a general practitioner.

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

The course contains lectures (38 h, in Finnish), group sessions (10 h) and evaluation of the course through exams (6 h). Self-study 54 hours.

Target group:

Medical students

Recommended or required reading:

Book: Harper RA (ed.). Basic Ophthalmology (9th ed) American Academy of Ophthalmology, San Fransisco, 2010.

Assessment methods and criteria:

The student has to attend the obligatory learning sessions. The assessment is based on examination.

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

Grading:

Preliminary examination: pass/fail; final examination 0-5.

Person responsible:

Clinical lecturer Aura Falck

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080303A-01: Ophthalmology, Pre-examination, 0 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Aura Falck

Opintokohteen kielet: Finnish

Language of instruction:

Lectures are in Finnish and group sessions in English

Timing:

C8

Learning outcomes:

The course of ophthalmology is based on learning basic ophthalmology and skills needed for the work of general practitioner. After this course the student should have basic knowledge of symptoms, diagnostics and treatment options of ophthalmic diseases and of connection between systemic diseases and ophthalmic problems. After completion of the course the student should be able to perform visual and ophthalmic examination needed for health check-up, screening of child's visual acuity, to treat general ophthalmic diseases and to assess the need and urgency for further care.

Contents:

Examination of eyes and visual acuity and treatment of ophthalmic diseases based on learning skills needed for the work of general practitioner

Learning activities and teaching methods:

Lectures 38 h, group sessions 10 h , exams 2h + 4 h

Recommended or required reading:

Books: Saari KM (toim): Silmätautioppi. Kandidaattikustannus Oy 2001 or Tarkkanen A (ed): Principles of Ophthalmology. Recallmed 1995.

Assessment methods and criteria:

The completion of the course includes participation in all group sessions and passed exams.

Grading:

Preliminary examination: pass/fail; final examination 0-5.

Person responsible:

Clinical lecturer Johanna Liinamaa

Other information:

Two optional group sessions are provided (cataract surgery demonstration and minor eyelid surgery demonstration).

080303A-02: Ophthalmology, Small group classes, 0 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Aura Falck

Opintokohteen kielet: Finnish

Language of instruction:

Lectures are in Finnish and group sessions in English

Timing:

C8

Learning outcomes:

The course of ophthalmology is based on learning basic ophthalmology and skills needed for the work of general practitioner. After this course the student should have basic knowledge of symptoms, diagnostics and treatment options of ophthalmic diseases and of connection between systemic diseases and ophthalmic problems. After completion of the course the student should be able to perform visual and ophthalmic examination needed for health check-up, screening of child's visual acuity, to treat general ophthalmic diseases and to assess the need and urgency for further care.

Contents:

Examination of eyes and visual acuity and treatment of ophthalmic diseases based on learning skills needed for the work of general practitioner

Learning activities and teaching methods:

Lectures 38 h, group sessions 10 h, exams 2h + 4 h

Recommended or required reading:

Books: Saari KM (toim): Silmätautioppi. Kandidaattikustannus Oy 2001 or Tarkkanen A (ed): Principles of Ophthalmology. Recallmed 1995.

Assessment methods and criteria:

The completion of the course includes participation in all group sessions and passed exams.

Grading:

Preliminary examination: pass/fail; final examination 0-5.

Person responsible:

Clinical lecturer Johanna Liinamaa

Other information:

Two optional group sessions are provided (cataract surgery demonstration and minor eyelid surgery demonstration).

080303A-03: Ophthalmology, Final examination, 0 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Aura Falck

Opintokohteen kielet: Finnish

Language of instruction:

Lectures are in Finnish and group sessions in English

Timing:

C8

Learning outcomes:

The course of ophthalmology is based on learning basic ophthalmology and skills needed for the work of general practitioner. After this course the student should have basic knowledge of symptoms, diagnostics and treatment options of ophthalmic diseases and of connection between systemic diseases and ophthalmic problems. After completion of the course the student should be able to perform visual and ophthalmic examination needed for health check-up, screening of child's visual acuity, to treat general ophthalmic diseases and to assess the need and urgency for further care.

Contents:

Examination of eyes and visual acuity and treatment of ophthalmic diseases based on learning skills needed for the work of general practitioner

Learning activities and teaching methods:

Lectures 38 h, group sessions 10 h , exams 2h + 4 h

Recommended or required reading:

Books: Saari KM (toim): Silmätautioppi. Kandidaattikustannus Oy 2001 or Tarkkanen A (ed): Principles of Ophthalmology. Recallmed 1995.

Assessment methods and criteria:

The completion of the course includes participation in all group sessions and passed exams.

Grading:

Preliminary examination: pass/fail; final examination 0-5.

Person responsible:

Clinical lecturer Johanna Liinamaa

Other information:

Two optional group sessions are provided (cataract surgery demonstration and minor eyelid surgery demonstration).

080224A: Organ pathology 3, 2 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karttunen, Tuomo Juhani

Opintokohteen kielet: Finnish

ECTS Credits:

2.0 ECTS credits/54 hours of work

Language of instruction:

Finnish

Timing:

C 9-10, spring semester

Learning outcomes:

Upon completion the student should know, for each organ system included, the basic mechanisms of diseases (etiology and pathogenesis), their basic morphological, functional and clinical characteristics, and terminology related with diseases. The student should be able to recognize and classify the most common diseases of the organ systems, understand the relationship between these features of the diseases and their symptoms and other clinical manifestations. The student should know the most important sources of error in histopathological diagnostics, and be familiar with the collaboration between clinician and pathologists needed in every day clinical work.

Contents:

Gynecopathology. Dermatopathology. Clinocopathological collaboration in primary health care.

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

Lectures 6 hours; theme days 8 hours, Practicals 6 hours. Self study 33 hours, written examination 1 hour.

Target group:

Medical students

Prerequisites and co-requisites:

The required prerequisite is the completion of the following courses prior to enrolling for the course unit: 040108A General pathology; 080222A Organ Pathology 1; integrated studies of basic sciences 042001Y Pathology

Recommended optional programme components:

No alternative course units

Recommended or required reading:

Books: Cross SS: Underwood's Pathology, a clinical approach (6th ed. 2013); or Underwood JCE: General and systematic pathology (5th ed. 2009); sections Skin, Female genital tract, partly section How do pathologists help patient care; or Kumar V. et al.: Robbins Basic Pathology, (9th ed. 2012 or 8th ed. 2007). Alternatives: Kumar V. et al.: Robbins and Cotran, Pathologic basis of disease (8th ed. 2010 or 7th ed. 2005); Rubin & Strayer; Rubin's Pathology (2005).

In Finnish: Mäkinen M. et al. Patologia, Duodecim, 2012; Lecture handouts; Guidebook for microscopy practicals. Material associated with virtual pathology teaching program.

Assessment methods and criteria:

The course requirements include participation in compulsory practicals and passing the end-of-course examination.

Grading:

The evaluation scale is 1-5/fail.

Person responsible:

Tuomo Karttunen

Working life cooperation:

No

*compuls17***080224A-01: Organ pathology III, microscopic, 0 op****Voimassaolo:** 01.08.2014 -**Opiskelumuoto:** Intermediate Studies**Laji:** Partial credit**Vastuuyksikkö:** Medicine**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Karttunen, Tuomo Juhani**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

080224A-02: Organ pathology III, seminars, 0 op**Voimassaolo:** 01.08.2014 -**Opiskelumuoto:** Intermediate Studies

Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Karttunen, Tuomo Juhani
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080224A-03: Organ pathology III, exam, 0 op

Voimassaolo: 01.08.2014 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Karttunen, Tuomo Juhani
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080222A: Organ pathology I, 6 op

Voimassaolo: 01.08.2013 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Karttunen, Tuomo Juhani
Opintokohteen kielet: Finnish

ECTS Credits:

6 ECTS/ 154 hours of work

Language of instruction:

Finnish

Timing:

C5-6 (3rd year)

Learning outcomes:

This course focuses on the essential features of etiology, pathogenesis and structural changes of diseases of the different organ systems. Pathophysiological aspects of diseases are reviewed as well as relationship between the abnormal function and structure and the clinical manifestations of disease, such as symptoms and clinical findings.

After the course, students should be able to describe etiology and pathogenesis of the most important diseases of each organ system, and the structural abnormalities of such diseases. The student should be able to explain how structural and functional abnormalities manifest themselves as clinical symptoms and signs. In addition, students should be able to identify and classify the most common types of macroscopic and microscopic abnormalities in different organ systems. He/she should know the most important sources of error in surgical pathological and cytological diagnostics, and be prepared on a proper teamwork with pathologists in his/her clinical work, for the best of his/her patients.

Contents:

Methods of pathology. Sources of errors in surgical pathology and diagnostic cytology. Pathology of the liver, biliary tract and pancreas. Pathology of the gastrointestinal tract. Hematopathology including pathology of the lymph nodes and the spleen. Pathology of the kidney, urinary tract and male genitals. Pathology of bones, joints and soft tissues. Pathology of breast.

Mode of delivery:

The tuition will be implemented as face-to-face teaching.

Learning activities and teaching methods:

Lectures 22 h, theme days 8 h, practical training 32 h,

exam 2h

Independent work 88 h

Target group:

Medical students

Prerequisites and co-requisites:

040108A General Pathology

040037Y, Pathology integrated studies, 1 credits (2nd year)

Recommended or required reading:

Mäkinen M. et al. Patologia, Duodecim, 2012.

Or: Cross SS: Underwood's Pathology, a clinical approach (6th ed. 2013)

Or: Underwood JCE: General and systematic pathology (5th ed. 2009).

Or: Kumar V. et al.: Robbins Basic Pathology, (9 th ed. 2012 tai 7th ed. 2007).

Other: Kumar V. et al.: Robbins and Cotran, Pathologic basis of disease (8 th ed. 2010).

Lecture handouts; Guidebook for microscopy practicals, Guidebook for autopsy (in Finnish). Material associated with virtual pathology teaching program (in Finnish).

Assessment methods and criteria:

Attendance in compulsory teaching, examination

Grading:

1 - 5, fail

Person responsible:

Prof. Tuomo Karttunen

Working life cooperation:

No

compuls16

080222A-01: Organ pathology 1, group study, 2,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karttunen, Tuomo Juhani

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080222A-02: Organ pathology 1, theme days, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karttunen, Tuomo Juhani

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080222A-03: Organ pathology 1, mikroskop study, 1,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karttunen, Tuomo Juhani

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080222A-04: Organ pathology 1, exam, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karttunen, Tuomo Juhani

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080223A: Organ pathology II, 2 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karttunen, Tuomo Juhani

Opintokohteen kielet: Finnish

ECTS Credits:

2 ECTS credits/ 52 hours of work

Language of instruction:

Finnish

Timing:

C 7-8, autumn semester

Learning outcomes:

Upon completion the student should know, for each organ system included, the basic mechanisms of diseases (etiology and pathogenesis), their basic morphological, functional and clinical characteristics, and terminology related with diseases. The student should be able to recognize and classify the most common diseases of the organ systems, understand the relationship between these features of the diseases and their symptoms and other clinical manifestations. The student should know the most important sources of error in histopathological diagnostics, and be familiar with the collaboration between clinician and pathologists needed in every day clinical work.

Contents:

Neuropathology. Pathology of the mammary gland. Pathology of joints, bones and soft tissues. Pathology of connective tissue diseases. Oral pathology. Pathology of ear and eye diseases.

Mode of delivery:

Face-to-face teaching.

Learning activities and teaching methods:

Lectures 12 hours, Practicals 10 hours. Self study 36 hours. Written examination 1 hour.

Target group:

Medical students.

Prerequisites and co-requisites:

The required prerequisite is the completion of the following courses prior to enrolling for the course unit: 040108A General pathology; 080211A-01 Organ Pathology I

Recommended optional programme components:

The course will be coordinated with the course 042001Y-05 Integrated studies of pathology.

Recommended or required reading:

Books: Cross SS: Underwood's Pathology, a clinical approach (6th ed. 2013) sections relating on the organs/organs systems, which are on the focus of this course (see Contents); or Underwood JCE: General and systematic

pathology (5th ed. 2009);; or Kumar V. et al.: Robbins Basic Pathology, (9th ed. 2012 or 8th ed. 2007). Alternatives: Kumar V. et al.: Robbins and Cotran, Pathologic basis of disease (8th ed. 2010).

In Finnish: Mäkinen M. et al. Patologia, Duodecim, 2012; Lecture handouts; Guidebook for microscopy practicals.

Material associated with virtual pathology teaching program.

Assessment methods and criteria:

The course requirements include participation in compulsory practicals and passing the end-of-course examination.

Grading:

The evaluation scale is 1-5/fail. One grade includes courses 080223A ja 042001Y-05.

Person responsible:

Prof. Tuomo Karttunen

Working life cooperation:

No

Other information:

The course is associated with the course integrated studies of basic sciences (042001Y Pathology) during the 4th year, topic pathology of respiratory system diseases.

Compulsory

080223A-01: , 1 - 1,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karttunen, Tuomo Juhani

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080223A-04: , 0,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karttunen, Tuomo Juhani

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080223A-03: , 0,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Basic Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karttunen, Tuomo Juhani

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

Electives

080223A-02: , 0 op**Voimassaolo:** 01.08.2014 -**Opiskelumuoto:** Basic Studies**Laji:** Partial credit**Vastuuyksikkö:** Medicine**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Karttunen, Tuomo Juhani**Opintokohteen kielet:** Finnish

Ei opintojaksokuvauksia.

080302A: Oto-rhino-laryngology, 6 op**Opiskelumuoto:** Intermediate Studies**Laji:** Course**Vastuuyksikkö:** Medicine**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Alho, Olli-Pekka**Opintokohteen kielet:** Finnish**ECTS Credits:**

6 ECTS credits / 159 hours of work

Language of instruction:

Finnish

Timing:

The course is held in the autumn and spring semester, during the fourth year

Learning outcomes:

The aim of the course is to familiarize the student with examining, treating and referring an otorhinolaryngological patient. After the course, the student has the knowledge and skills needed to work as an independent general practitioner.

Contents:

The course deals with diseases of the ear, nose, paranasal sinuses, mouth, throat, salivary glands and larynx as well as facial trauma. The epidemiology, diagnostics, treatment and also rehabilitation regarding these diseases are handled. An introduction to the specialty of Otorhinolaryngology is included. The group instructions, theme day and independently performed tasks focus on diagnostics and treatment of the ear, throat and nose diseases as well as on techniques of the most common ambulatory procedures.

Mode of delivery:

The course is delivered as blended teaching (web-based+face-to-face).

Learning activities and teaching methods:

Lectures 38 h (+self study 38 h)

Polyclinical real-case based group teaching 14 h (+self study 14 h).

Independently performed tasks 6 h

Theme day 4 h (+self study 4 h)

Entering examination 8 h

Final examination 32 h

Target group:

For the medical students of the fourth year

Prerequisites and co-requisites:

All earlier courses in the curriculum are completed

Recommended optional programme components:

The course is an independent entity and does not require additional studies carried out at the same time.

Recommended or required reading:

Textbook: Korva-, nenä- ja kurkkutautioppi ja Foniatrian perusteet. Korvatieto Oy (the most recent edition) Material given in the lectures.

Assessment methods and criteria:

The teachers monitor, evaluate and give feed back to the students during all face-to-face teaching situations. At the beginning of the course, the students have an entering examination. Performed group teaching sessions, independent tasks and theme day are registered in the course log book. At the end, the students have the final examination.

Read more about assessment criteria at the University of Oulu webpage.

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

Grading:

The course utilizes a numerical grading scale 1-5 (based on the final exam). In the numerical scale zero stands for a fail.

Person responsible:

Professor Olli-Pekka Alho

Working life cooperation:

No

Compulsory

080302A-01: Oto-rhino-laryngology,entering exam, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Alho, Olli-Pekka

Opintokohteen kielet: Finnish

ECTS Credits:

6.0 credits

Timing:

C7-8

Learning outcomes:

The student gains the skills and knowledge in Otorhinolaryngology he or she needs to work as an independent general practitioner

Contents:

The course deals with diseases of the ear, the nose and the paranasal sinuses, the mouth, the throat, the salivary glands and the larynx as well as injuries of the face. The epidemiology, diagnostics, treatment also rehabilitation are handled. The student also gets acquainted with hearing rehabilitation. An introduction into phoniatics is provided. The group instructions focus on diagnostics and treatment of ear, nose and throat diseases in practice and well as techniques of ambulatory operations. One seminar on vertigo is given in collaboration with several other specialties.

The lectures are given in Finnish but the material provided for the students is translated into English.

Learning activities and teaching methods:

52 h of lectures, out of these 8 h propedeutical lectures at the beginning of the course. The lectures focus on themes, and also on problem based reviews. 28 h of group instructions per student. The students are divided into 12 groups, 2 of these work at the department in each occasion. On an average, a student works for 2 h per week at the department. The group instructions include patient work at the outpatient department; 4 occasions deal with the most common ear, nose and throat diseases, and in addition one occasion (2 h) on phoniatics.

Recommended or required reading:

Textbook: Korva-, nenä- ja kurkkutautioppi ja Foniatrian perusteet. Korvatieto Oy (the most recent edition)

Becker, Naumann, Pflanz: Ear, Nose and Throat Diseases, Thieme 1994

Boenninghaus, Lenarz: Hals-Nasen-Ohrenheilkunde, Springer-Verlag 2005

Assessment methods and criteria:

All group instructions, entering examination and final examination

Grading:

The entering examination is based on the material of the propedeutical lectures. The entering examination deals with anatomy, physiology examination techniques. The final examination consists of a written and an oral part (which also serves as feed back for the written part). 6 questions in the written examination, each giving 0 to 6 points. The result of the entering examination has a weight of 1/7 in the final evaluation. The final evaluation is scored from 0 to 5

Person responsible:

Professor Martti Sorri (martti.sorri@oulu.fi)

080302A-03: Oto-rhino-laryngology, final exam, 3 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Alho, Olli-Pekka

Opintokohteen kielet: Finnish

ECTS Credits:

6.0 credits

Timing:

C7-8

Learning outcomes:

The student gains the skills and knowledge in Otorhinolaryngology he or she needs to work as an independent general practitioner

Contents:

The course deals with diseases of the ear, the nose and the paranasal sinuses, the mouth, the throat, the salivary glands and the larynx as well as injuries of the face. The epidemiology, diagnostics, treatment also rehabilitation are handled. The student also gets acquainted with hearing rehabilitation. An introduction into phoniatrics is provided. The group instructions focus on diagnostics and treatment of ear, nose and throat diseases in practice and well as techniques of ambulatory operations. One seminar on vertigo is given in collaboration with several other specialties.

The lectures are given in Finnish but the material provided for the students is translated into English.

Learning activities and teaching methods:

52 h of lectures, out of these 8 h propedeutical lectures at the beginning of the course. The lectures focus on themes, and also on problem based reviews. 28 h of group instructions per student. The students are divided into 12 groups, 2 of these work at the department in each occasion. On an average, a student works for 2 h per week at the department. The group instructions include patient work at the outpatient department; 4 occasions deal with the most common ear, nose and throat diseases, and in addition one occasion (2 h) on phoniatrics.

Recommended or required reading:

Textbook: Korva-, nenä- ja kurkkutautioppi ja Foniatrian perusteet. Korvatieto Oy (the most recent edition)
Becker, Naumann, Pfalz: Ear, Nose and Throat Diseases, Thieme 1994
Boenninghaus, Lenarz: Hals-Nasen-Ohrenheilkunde, Springer-Verlag 2005

Assessment methods and criteria:

All group instructions, entering examination and final examination

Grading:

The entering examination is based on the material of the propedeutical lectures. The entering examination deals with anatomy, physiology examination techniques. The final examination consists of a written and an oral part (which also serves as feed back for the written part). 6 questions in the written examination, each giving 0 to 6 points. The result of the entering examination has a weight of 1/7 in the final evaluation. The final evaluation is scored from 0 to 5

Person responsible:

Professor Martti Sorri (martti.sorri@oulu.fi)

080302A-04: Oto-rhino-laryngology, compulsory studies, 2 op**Voimassaolo:** 01.08.2014 -**Opiskelumuoto:** Intermediate Studies**Laji:** Partial credit**Vastuuyksikkö:** Medicine**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Alho, Olli-Pekka**Opintokohteen kielet:** Finnish**ECTS Credits:**

6.0 credits

Timing:

C7-8

Learning outcomes:

The student gains the skills and knowledge in Otorhinolaryngology he or she needs to work as an independent general practitioner

Contents:

The course deals with diseases of the ear, the nose and the paranasal sinuses, the mouth, the throat, the salivary glands and the larynx as well as injuries of the face. The epidemiology, diagnostics, treatment also rehabilitation are handled. The student also gets acquainted with hearing rehabilitation. An introduction into phoniatrics is provided. The group instructions focus on diagnostics and treatment of ear, nose and throat diseases in practice and well as techniques of ambulatory operations. One seminar on vertigo is given in collaboration with several other specialties.

The lectures are given in Finnish but the material provided for the students is translated into English.

Learning activities and teaching methods:

52 h of lectures, out of these 8 h propedeutical lectures at the beginning of the course. The lectures focus on themes, and also on problem based reviews. 28 h of group instructions per student. The students are divided into 12 groups, 2 of these work at the department in each occasion. On an average, a student works for 2 h per week at the department. The group instructions include patient work at the outpatient department; 4 occasions deal with the most common ear, nose and throat diseases, and in addition one occasion (2 h) on phoniatrics.

Recommended or required reading:

Textbook: Korva-, nenä- ja kurkkutautioppi ja Foniatrian perusteet. Korvatieto Oy (the most recent edition)
Becker, Naumann, Pfalz: Ear, Nose and Throat Diseases, Thieme 1994
Boenninghaus, Lenarz: Hals-Nasen-Ohrenheilkunde, Springer-Verlag 2005

Assessment methods and criteria:

All group instructions, entering examination and final examination

Grading:

The entering examination is based on the material of the propedeutical lectures. The entering examination deals with anatomy, physiology examination techniques. The final examination consists of a written and an oral part (which also serves as feed back for the written part). 6 questions in the written examination, each giving 0 to 6 points. The result of the entering examination has a weight of 1/7 in the final evaluation. The final evaluation is scored from 0 to 5

Person responsible:

Professor Martti Sorri (martti.sorri@oulu.fi)

080502A: Pediatrics, 14 op**Opiskelumuoto:** Intermediate Studies**Laji:** Course**Vastuuyksikkö:** Medicine**Arvostelu:** 1 - 5, pass, fail

Opettajat: Mika Rämetsä

Opintokohteen kielet: Finnish

ECTS Credits:

14 ECTS / 370 hours of work

Language of instruction:

Finnish

Timing:

C9 and C10

The course unit is held in the autumn semester and spring semester

Learning outcomes:

Upon completion the student is able

- to diagnose and treat the most common pediatric diseases as a general practitioner or as a first-year resident in a hospital
- to provide first aid to acutely and critically ill children
- to understand pediatric preventive health care and health education

Contents:

Growth and development; medical history and clinical examination of a child; allergology; endocrinology; diabetology, gastroenterology, hematology, infectious diseases; cardiology, pediatric surgery; pediatric neurology, nephrology, neonatology; oncology; emergency medicine

Mode of delivery:

Blended teaching

Learning activities and teaching methods:

Lectures 66 h

Theme-day 4 h

Small group teaching

- Group teaching 39h
- Ward rounds and learning at wards, following of the own patient 24h
- Outpatient clinic learning 26 h
- Attending to the pediatric emergency (including patient examinations and 7 case records) 12 hours

Seminars 16 h

Student-visit 4 h

Practical training in Central Hospitals 40 h

The admission exam 1h (web-based)

The patient exam 1 h

The final exam 4 h

Self-study 133 h

Target group:

Medical Students

Prerequisites and co-requisites:

The prerequisites for the course unit are previous studies (C1-8 course units)

Recommended optional programme components:

No alternative course units.

Recommended or required reading:

Text book: Rajantie J., Mertsola J. & Heikinheimo M. (edit.) Lastentaudit 4. edition, Kustannus Oy Duodecim 2010. Printed version of lectures.

Recommended reading:

- 1) Lastenneuvolakäsikirja <http://www.thl.fi/fi/web/lastenneuvolakasikirja>
- 2) Ruuskanen O, Peltola H, Vesikari T. toim. Lasten infektiosairaudet. Tampereen yliopiston rokotetutkimuskeskus, 2007
- 3) Louhimo I, Peltonen J, Rintala R. Louhimon lastenkirurgia. Kandidaattikustannus Oy, Jyväskylä 2000.
- 4) Pihko H, Haataja L., Rantala H. (toim.) Lastenneurologia. Helsinki, Duodecim 2014.
- 5) Korppi M., Kröger L. Rantala H. (toim.) Lastentautien päivityskirja. Duodecim, Jyväskylä, 2012.
- 6) Kamei R. Rudolph's Fundamentals of Pediatrics. Last edition.
- 7) Lissauer T., Clendenen G. Illustrated textbook of paediatrics. Mosby, London, Last Edition.

Assessment methods and criteria:

The assessment of the course unit is based on the learning outcomes of the course unit.

Preliminary test is multiple choice test. Required literature: text book. The preliminary test is evaluated from 0 to 50 points (the approval limit is 20 points). Exam should be passed during one week from the beginning of the course.

Attending to all compulsory teaching
(evaluated pass/fail)

Patient cases exam (evaluated from 0 to 20 points, approval limit is 5 points)
Grading: 1-5/fail

The final exam (evaluated from 0-60 points, approval limit is 35 points.

Grading: 1-5/fail.

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

Grading:

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail.

The final grade of the course is formed of
final exam (85%) and patient cases exam(15%)

Person responsible:

Prof. Mika Rämetsä

Working life cooperation:

Yes. Each student will follow the work of pediatricians taking care of patients in one central hospital during one week.

Compulsory

080502A-01: Paediatrics, Exam, 1 op

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Mika Rämetsä

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080502A-03: Paediatrics, 10 patient cases, 1 op

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Mika Rämetsä

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080502A-04: Paediatrics, Final exam, 1,5 op

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Mika Rämetsä

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080502A-05: Paediatrics, Patient examination and patient records, 1 op

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Mika Rämät

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080502A-06: Paediatrics, Logbook, 9,5 op

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Mika Rämät

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080916A: Physiathry and rehabilitation, 5 op

Voimassaolo: 01.08.2011 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Karppinen, Jaro Ilari

Opintokohteen kielet: Finnish

ECTS Credits:

5 ECTS credits

Language of instruction:

Finnish

Timing:

The course is held in the autumn and spring terms of the sixth year in the medical school

Learning outcomes:

Upon completion the student understands the principles of diagnostics, differential diagnostics, treatment, evaluation of functional ability and rehabilitation in the field of Physical and Rehabilitation Medicine. The student is able to adapt his/her knowledge to primary health care practice.

Contents:

The definitions and assesment methods of functional ability in the context of ICF (International Classification of Functioning and Health)

Multi-professionality in rehabilitation

Low back disorders

Neck disorders

Lower extremity disorders

Upper extremity disorders

Rehabilitation of spinal cord injuries

Rehabilitation of strokes

Rehabilitation of brain injuries

Limb amputations, prostheses and rehabilitation

Principles of physiotherapy

Principles of occupational therapy

Social work in rehabilitation

Pain psychology

Assistive devices

Vocational rehabilitation
Recognition of obstacles in functional ability and finding solutions for these

Mode of delivery:

Internet lectures, lecture-related exercises and questions & answers sessions
Thematic days with focus on functional ability

Learning activities and teaching methods:

Internet lectures ca. 30-40h
Exercises linked to lectures ca. 15-20h
Questions and answers sessions 6h
Visit of rehabilitation ward or spinal cord policlinic 2,5 h
Thematic days 8h (+ 4h within Geriatrics)
Exercises related to thematic days 12h (+ 6h within Geriatrics)

Target group:

Medical students (sixth year)

Recommended optional programme components:

Theme days will be arranged in collaboration with Geriatrics and Oulu University of Applied Sciences

Recommended or required reading:

Last issue of Physical and Rehabilitation Medicine textbook. Current Care guidelines of Physical and Rehabilitation Medicine. The new text book on Rehabilitation when appropriate.

Assessment methods and criteria:

Internet lectures-related exercises (>100), of which 50% has to be solved
Final examination (essay)

Grading:

Approved/failed (50% of maximum points)

Person responsible:

Professor Jaro Karppinen
Professor Mauri Kallinen

080103A: Psychiatry, 12 - 14 op

Voimassaolo: 01.01.2009 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Veijola, Juha Martti

Opintokohteen kielet: Finnish

Voidaan suorittaa useasti: Kyllä

ECTS Credits:

ECTS credits 12.0/318 hours of work

Language of instruction:

Finnish language

Timing:

S7-S8, 4th year, August and January

Learning outcomes:

To provide basic facts on psychiatric diseases and treatment, particularly in primary health care. Students are able to identify common mental disorders and know how to treat them in adult patients, in accordance with the Treatment Recommendations (psychotherapy, psychopharmacology) in primary and specialist level health care settings. Students can identify severe mental disorders in adolescents, adults and elderly patients and be able to send the patients to the psychiatric emergency and psychiatric care, involuntarily if necessary. The student can identify patients with psychosis and those patients at risk of suicide or violent acts.

Contents:

Major psychiatric illnesses in adults and adolescents: their acute care and further treatment. Examining a psychiatric patient. Nosology, diagnostics and treatment of the most common psychiatric diseases. Psychiatric legislation and forensic psychiatry. Psychopharmaceutical treatment. Psychotherapy and its applications. Clinical psychology. Psychosomatics. Substance abuse. Adolescent psychiatry; identification of mental disorders in adolescence, (such as psychoses, depression and eating disorders), treatment principles. Psychiatry among elderly people. Doctor-patient interaction, team work, management, coping with a physician's profession.

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

Lectures covering various themes in psychiatry (psychiatric epidemiology, schizophrenia and other psychoses, depression, anxiety disorders, substance use disorder, perinatal mental disorders, psychiatry in health care center, adolescent psychiatry etc.). Besides lectures, the teaching consists mainly of group teaching, several seminars and also clinical practice which includes following clinical work in psychiatric units on emergency duty. There is a final written examination. Question time and feedback, including questionnaire in Optima. The student has to understand and speak Finnish fluently in order to be able to participate in the course.

Target group:

Fourth year medical students.

Prerequisites and co-requisites:

Pervious medical studies has to be completed.

Recommended optional programme components:

The course is an independent entity and does not require additional studies carried out at the same time.

Recommended or required reading:

Lönnqvist J, et al., Psykiatria. Kustannus Oy Duodecim, Helsinki, 2011. Material from lectures, seminars and group education. Other recommended reading: Evidence based treatment (Käypähoito)-guidelines in psychiatry and adolescent psychiatry (for example www.terveysportti.fi), Legislation, especially Mental Health Act and Decree, Child Welfare Act (www.finlex.fi-ajantasainenlainsaadantö) and Huttunen MO. Psykykenlääkeopas. Kustannus Oy Duodecim, 2008, Helsinki.

Assessment methods and criteria:

Taking part to compulsory studies and practice including group studies, theme days and clinical practice. Final written examination. Question time and feedback, including questionnaire in Optima.

Grading:

The evaluation scale for the final examination is 0-5 (and in the intranet Optima: pass/fail). The best grading is 5.

Person responsible:

Professor Pirkko Riipinen

Working life cooperation:

In the course is included clinical practise period lasting one week.

Compulsory

080103A-05: Psychiatry preexamination, 0,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Veijola, Juha Martti

Opintokohteen kielet: Finnish

Voidaan suorittaa useasti: Kyllä

Ei opintojaksokuvauksia.

080103A-06: Psychiatry clinical practice, 2 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Veijola, Juha Martti

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080103A-04: Psychiatry final examination, 1,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Veijola, Juha Martti

Opintokohteen kielet: Finnish

Voidaan suorittaa useasti: Kyllä

Ei opintojaksokuvauksia.

080103A-02: Psychiatry, obligatory, 8 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Veijola, Juha Martti

Opintokohteen kielet: Finnish

Voidaan suorittaa useasti: Kyllä

Ei opintojaksokuvauksia.

081421A: Public Health, 3rd period, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

ECTS Credits:

1 ECTS credits

Language of instruction:

Finnish

Timing:

The third year (C6), spring semester

Learning outcomes:

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

- meet patient discreetly and appropriately
- perform independently the patient-centered communication;
- describe the importance of reflection in the communication

Contents:

Communication training: lecture (1,5 hours), small group teaching, perform short video of the communication.

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

Lecture and small group teaching. One communication in the video

Target group:

The students from medicine

Prerequisites and co-requisites:

Interviewing and examining patients, C4

Recommended or required reading:

Yleislääketiede, Kumpusalo E, Ahto M, Eskola K, Keinänen-Kiukaanniemi, S, Kosunen E, Kunnamo I, Lohi J(toim) Kustannus Oy Duodecim 2005, soveltuvilta osin;
Mustajoki, P., Saha, H. & Sane, T. (ed.): Potilaan tutkiminen. Kustannus Oy Duodecim, Saarijärvi 2009.

Assessment methods and criteria:

Attending to all compulsory teaching: lecture, small-group work and making video of his/her own interview.

Grading:

Pass/fail

Person responsible:

Professor of general practice Markku Timonen

081422A: Public Health, 4th period, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Markku Timonen

Opintokohteen kielet: Finnish

ECTS Credits:

1 ECTS credits

Language of instruction:

Finnish

Timing:

The third year (C6), spring semester

Learning outcomes:

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

- meet patient discreetly and appropriately
- perform independently the patient-centered communication;
- describe the importance of reflection in the communication

Contents:

Communication training: lecture (1,5 hours), small group teaching, perform short video of the communication.

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

Lecture and small group teaching. One communication in the video

Target group:

The students from medicine

Prerequisites and co-requisites:

Interviewing and examining patients, C4

Recommended or required reading:

Yleislääketiede, Kumpusalo E, Ahto M, Eskola K, Keinänen-Kiukaanniemi, S, Kosunen E, Kunnamo I, Lohi J(toim) Kustannus Oy Duodecim 2005, soveltuvilta osin;
Mustajoki, P., Saha, H. & Sane, T. (ed.): Potilaan tutkiminen. Kustannus Oy Duodecim, Saarijärvi 2009.

Assessment methods and criteria:

Attending to all compulsory teaching: lecture, small-group work and making video of his/her own interview.

Grading:

Pass/fail

Person responsible:

Professor of general practice Markku Timonen

081423A: Public Health, 5th period, 5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Markku Timonen

Opintokohteen kielet: Finnish

ECTS Credits:

1 ECTS credits

Language of instruction:

Finnish

Timing:

The third year (C6), spring semester

Learning outcomes:

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

- meet patient discreetly and appropriately
- perform independently the patient-centered communication;
- describe the importance of reflection in the communication

Contents:

Communication training: lecture (1,5 hours), small group teaching, perform short video of the communication.

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

Lecture and small group teaching. One communication in the video

Target group:

The students from medicine

Prerequisites and co-requisites:

Interviewing and examining patients, C4

Recommended or required reading:

Yleislääketiede, Kumpusalo E, Ahto M, Eskola K, Keinänen-Kiukaanniemi, S, Kosunen E, Kunnamo I, Lohi J(toim)

Kustannus Oy Duodecim 2005, soveltuvilta osin;

Mustajoki, P., Saha, H. & Sane, T. (ed.): Potilaan tutkiminen. Kustannus Oy Duodecim, Saarijärvi 2009.

Assessment methods and criteria:

Attending to all compulsory teaching: lecture, small-group work and making video of his/her own interview.

Grading:

Pass/fail

Person responsible:

Professor of general practice Markku Timonen

081424A: Public Health, 6th period, 8 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Markku Timonen

Opintokohteen kielet: Finnish

ECTS Credits:

1 ECTS credits

Language of instruction:

Finnish

Timing:

The third year (C6), spring semester

Learning outcomes:

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

- meet patient discreetly and appropriately
- perform independently the patient-centered communication;
- describe the importance of reflection in the communication

Contents:

Communication training: lecture (1,5 hours), small group teaching, perform short video of the communication.

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

Lecture and small group teaching. One communication in the video

Target group:

The students from medicine

Prerequisites and co-requisites:

Interviewing and examining patients, C4

Recommended or required reading:

Yleislääketiede, Kumpusalo E, Ahto M, Eskola K, Keinänen-Kiukaanniemi, S, Kosunen E, Kunnamo I, Lohi J(toim) Kustannus Oy Duodecim 2005, soveltuvilta osin;
Mustajoki, P., Saha, H. & Sane, T. (ed.): Potilaan tutkiminen. Kustannus Oy Duodecim, Saarijärvi 2009.

Assessment methods and criteria:

Attending to all compulsory teaching: lecture, small-group work and making video of his/her own interview.

Grading:

Pass/fail

Person responsible:

Professor of general practice Markku Timonen

040116A: Public health science, 5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

ECTS Credits:

5.0 ECTS credits

Language of instruction:

Finnish/English

Timing:

The sixth year, autumn semester, C11

Learning outcomes:

The course is structured based on the interaction between the general population and individuals. Understanding the state of health of the population and factors related to it is necessary, for cost-efficient and effective treatment of patients, appropriate professional orientation, as well as rational decision-making. Respectively, knowing the state of an individual/patient and applying holistic and effective care increases wellbeing and reduces the burden of health care at the population level. The objective of the course is that students understand the population-based approach and close connection with clinical work, identify how public health science is associated with the practical work of a medical doctor and know how to apply it in their own work. The more specific learning objectives are to understand the specific features of population health, enable critical examination and interpretation of epidemiologic research, understand the framework of health economy as a part of cost-accounting of health care, gain knowledge of the

principles and systems related to insurance medicine and rehabilitation, as well as legislation the obliges health care practitioners. One objective is also that a student will receive an overview of the global public health challenges, and how these are reflected in the health status of the Finnish population.

Contents:

Lectures and theme days:

- Epidemiology of diseases
- Fundamentals of health economics
- Rehabilitation
- Health promotion and disease prevention
- Health policy
- Health sociology
- Health care legislation
- Global health
- Public health science and the work of a medical doctor
- Insurance medicine

Seminars:

- Topics including major health threatening environmental and lifestyle risk factors, diseases and preventive measures related to public health theme

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

Lectures, theme days, seminar work

Target group:

The students from medicine

Recommended optional programme components:

The course is linked to C1 – Public health and multiprofessional collaboration (Fundamentals of public health science), C4 – Epidemiology and Environmental health, and Environment, Lifestyle and Health (ELH) track

Recommended or required reading:

Koskenvuo K. (toim) Sairauksien ehkäisy. Duodecim 2003, soveltuvilta osin; Terveystieteiden tutkimuskeskus 1326/2010. Kauhanen ym. (2013) Kansanterveystiede. Sanoma Pro Oy, 320s.; Terveystieteiden tutkimuskeskus 30.12.2010/1326.

Assessment methods and criteria:

Written examinations. Participation in seminars, small group works, theme days and practical training module at a primary health care centre.

Grading:

Final grade of public health course will consist of final written exam and seminar assessment. Seminar work is assessed as a pass/fail. The best seminar work (written and oral presentation) from each seminar is selected by the group of supervisors and awarded with 3 additional points in the final exam. Final examination of public health comprises 3-4 questions, 2.5–10 points each. At least 10 points are required for passing the examination.

Person responsible:

Docent Tiina Ikkäheimo

080205A: Pulmonary diseases, 3 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

ECTS Credits:

3 ECTS credits / 80 hours of work

Language of instruction:

Finnish

Timing:

The course is held in the autumn and spring semesters, during 4th year (C7-8)

Learning outcomes:

Objective for learning of respiratory diseases is the knowledge of the treatment of the most common patients in the level of primary health care. Most pivotal lung diseases are asthma, chronic obstructive pulmonary disease (COPD), prolonged cough, obstructive sleep apnea and respiratory infections, in which the diagnostics, treatment, follow-up

and estimation for the need for specialist care assessment are usually taken place in the primary health care. Basic principles of the diagnostic and treatment of acute and chronic respiratory failure, interpretation of spirometry and PEF, arrangement in smoking cessation, evaluation of pleural diseases and pleural effusion, the most common occupational lung diseases, and interstitial and fibrotic lung diseases as well as palliative treatment of respiratory symptoms are aimed to possess.

Contents:

Contents of the learning of respiratory diseases consist of lectures, small group and bedside teachings in respiratory ward and outpatient department and theme-days as well as examinations in the onset and in the end of the course. The main focus will be on the most common lung diseases, which will be taught by using evidence and problems based elements and patient cases in addition of classical learning methods. Interpretation of lung function tests as well as smoking cessation methods will be rehearsed in multiple lessons. The choice of correct places for treatment, i. e. primary care and central hospitals will be taught too.

Voluntary web-based course is available to learn more about pulmonary function tests, smoking cessation and tuberculosis.

Mode of delivery:

Face-to-face teaching

Lectures

Web-based learning

Learning activities and teaching methods:

Lectures 16 h.

Exam in the beginning of the course 2 h. Attendance is compulsory.

Small group classes 2 h in the respiratory ward. Attendance is compulsory.

Small group practice in the respiratory outpatient clinic 4 h. Attendance is compulsory.

Theme days 16 h. Attendance is compulsory.

Final exam. Attendance is compulsory.

Web-based learning (voluntary)

Target group:

Medical students, C7-C8

Prerequisites and co-requisites:

Student must have completed interviewing and examining patients - course

Recommended optional programme components:

The course is performed simultaneously with other teaching of the fourth year.

Recommended or required reading:

Textbook:

Kaarteenaho R, Brander P, Halme M, Kinnula V.

Keuhkosairaudet – Diagnostiikka ja hoito (Duodecim 2013, ensimmäinen painos)

Käypä hoito-suositukset:

Astma, äkillinen hengitysvajaus, keuhkohtaumatauti, alahengitystietulehdukset (aikuinen), keuhkosityöpä, tupakkariippuvuus ja tupakasta vieroitus sekä uniapnea (obstruktiivinen uniapnea aikuisilla)

Web-courses: Pulmonary function tests (new), Smoking cessation (Duodecim), Tuberculosis (Duodecim)

Assessment methods and criteria:

Attendance in the compulsory small group teaching, the theme days and the examinations.

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

Grading:

Scale in examinations is 1-5:

36-40=5, 32-35=4, 28-31=3, 24-27=2, 20-23=1

Examination consists of four short essays. Ten points is maximum / essay. Examination is failed if the total points are less than 20 or if one of the essays is worth of 0 points.

Person responsible:

Professor Terttu Harju

Working life cooperation:

Small group classes in respiratory ward and outpatient department

compuls19

080205A-03: Pulmonary diseases preliminary examination, 0,5 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Terttu Harju

Opintokohteen kielet: Finnish

ECTS Credits:

3 ECTS

Language of instruction:

Finnish

Timing:

Year 3, Semesters 5 and 6

Learning outcomes:

After this course the student is able to treat common respiratory diseases. The student has basic knowledge about respiratory diseases, pathophysiology of these diseases and common lung function tests. The student knows how to deal with problems that are not resolved and treated in primary care.

Contents:

Respiratory medicine and clinical cases. Measurements of lung function, performance of common lung function and other diagnostic tests and the assessment of the test results.

Learning activities and teaching methods:

1. Lectures 16 h.
2. Small group classes 4 h. Attendance is compulsory.
3. Practice in outpatient clinic 4 h. Attendance is compulsory.
4. Seminars 11 h. Attendance is compulsory.

Recommended optional programme components:

Student must have completed preclinical studies and propedeutics of internal medicine.

Recommended or required reading:

Kinnula, V.L., Brander, P.E., Tukiainen, P.: Keuhkosairaudet (III uudistettu painos 2005), Kustannus Oy Duodecim.

Assessment methods and criteria:

Attendance at compulsory teaching. Exam of respiratory medicine.

Grading:

Grading scale in exams is 1-5.

26.6-30.0 # 5, 23.2-26.5 # 4, 19.8-23.1 # 3, 16.4-19.7 # 2, 13.0-16.3 # 1.

Exam consists of five short essays. Six points is maximum / essay. Exam is failed if the total points are less than 13 or if one of the essays is worth of 0 points.

Person responsible:

Professor Maritta Jaakkola (maritta.jaakkola@oulu.fi)

080205A-04: Pulmonary diseases small group classes, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Terttu Harju

Opintokohteen kielet: Finnish

ECTS Credits:

3 ECTS

Language of instruction:

Finnish

Timing:

Year 3, Semesters 5 and 6

Learning outcomes:

After this course the student is able to treat common respiratory diseases. The student has basic knowledge about respiratory diseases, pathophysiology of these diseases and common lung function tests. The student knows how to deal with problems that are not resolved and treated in primary care.

Contents:

Respiratory medicine and clinical cases. Measurements of lung function, performance of common lung function and other diagnostic tests and the assessment of the test results.

Learning activities and teaching methods:

1. Lectures 16 h.
2. Small group classes 4 h. Attendance is compulsory.
3. Practice in outpatient clinic 4 h. Attendance is compulsory.
4. Seminars 11 h. Attendance is compulsory.

Recommended optional programme components:

Student must have completed preclinical studies and propedeutics of internal medicine.

Recommended or required reading:

Kinnula, V.L., Brander, P.E., Tukiainen, P.: Keuhkosairaudet (III uudistettu painos 2005), Kustannus Oy Duodecim.

Assessment methods and criteria:

Attendance at compulsory teaching. Exam of respiratory medicine.

Grading:

Grading scale in exams is 1-5.

26.6-30.0 # 5, 23.2-26.5 # 4, 19.8-23.1 # 3, 16.4-19.7 # 2, 13.0-16.3 # 1.

Exam consists of five short essays. Six points is maximum / essay. Exam is failed if the total points are less than 13 or if one of the essays is worth of 0 points.

Person responsible:

Professor Maritta Jaakkola (maritta.jaakkola@oulu.fi)

080205A-05: Pulmonary diseases Theme day and Seminar, 0,5 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Terttu Harju

Opintokohteen kielet: Finnish

ECTS Credits:

3 ECTS

Language of instruction:

Finnish

Timing:

Year 3, Semesters 5 and 6

Learning outcomes:

After this course the student is able to treat common respiratory diseases. The student has basic knowledge about respiratory diseases, pathophysiology of these diseases and common lung function tests. The student knows how to deal with problems that are not resolved and treated in primary care.

Contents:

Respiratory medicine and clinical cases. Measurements of lung function, performance of common lung function and other diagnostic tests and the assessment of the test results.

Learning activities and teaching methods:

1. Lectures 16 h.
2. Small group classes 4 h. Attendance is compulsory.
3. Practice in outpatient clinic 4 h. Attendance is compulsory.
4. Seminars 11 h. Attendance is compulsory.

Recommended optional programme components:

Student must have completed preclinical studies and propedeutics of internal medicine.

Recommended or required reading:

Kinnula, V.L., Brander, P.E., Tukiainen, P.: Keuhkosairaudet (Ill uudistettu painos 2005), Kustannus Oy Duodecim.

Assessment methods and criteria:

Attendance at compulsory teaching. Exam of respiratory medicine.

Grading:

Grading scale in exams is 1-5.

26.6-30.0 # 5, 23.2-26.5 # 4, 19.8-23.1 # 3, 16.4-19.7 # 2, 13.0-16.3 # 1.

Exam consists of five short essays. Six points is maximum / essay. Exam is failed if the total points are less than 13 or if one of the essays is worth of 0 points.

Person responsible:

Professor Maritta Jaakkola (maritta.jaakkola@oulu.fi)

080205A-06: Pulmonary diseases Final Examination, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Terttu Harju

Opintokohteen kielet: Finnish

ECTS Credits:

3 ECTS

Language of instruction:

Finnish

Timing:

Year 3, Semesters 5 and 6

Learning outcomes:

After this course the student is able to treat common respiratory diseases. The student has basic knowledge about respiratory diseases, pathophysiology of these diseases and common lung function tests. The student knows how to deal with problems that are not resolved and treated in primary care.

Contents:

Respiratory medicine and clinical cases. Measurements of lung function, performance of common lung function and other diagnostic tests and the assessment of the test results.

Learning activities and teaching methods:

1. Lectures 16 h.
2. Small group classes 4 h. Attendance is compulsory.
3. Practice in outpatient clinic 4 h. Attendance is compulsory.
4. Seminars 11 h. Attendance is compulsory.

Recommended optional programme components:

Student must have completed preclinical studies and propedeutics of internal medicine.

Recommended or required reading:

Kinnula, V.L., Brander, P.E., Tukiainen, P.: Keuhkosairaudet (III uudistettu painos 2005), Kustannus Oy Duodecim.

Assessment methods and criteria:

Attendance at compulsory teaching. Exam of respiratory medicine.

Grading:

Grading scale in exams is 1-5.

26.6-30.0 # 5, 23.2-26.5 # 4, 19.8-23.1 # 3, 16.4-19.7 # 2, 13.0-16.3 # 1.

Exam consists of five short essays. Six points is maximum / essay. Exam is failed if the total points are less than 13 or if one of the essays is worth of 0 points.

Person responsible:

Professor Maritta Jaakkola (maritta.jaakkola@oulu.fi)

081803A: Radiation and its safe use, 1,5 op

Voimassaolo: 02.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Miika Nieminen

Opintokohteen kielet: Finnish

ECTS Credits:

1,5 ECTS

Language of instruction:

Finnish

Timing:

The course unit is held in the second year, C3

Learning outcomes:

After the course the student can describe different forms of radiation and their application in medicine, explain the biological effects and mechanisms of radiation, define the decrees pertaining to the use of radiation and describe the radiation safety measures in the hospital working environment. The student can apply knowledge in practice and guide others to safe working practices.

Contents:

Basics of radiation physics, basics of radiation biology, decree of radiation protection, radiation safety procedures in working environment, radiation use in medicine

Mode of delivery:

Lectures

Learning activities and teaching methods:

Lectures, exam

Target group:

The students from medicine

Grading:

Pass/fail

Person responsible:

Professor Miika Nieminen

Other information:

The course is statutory radiation protection education in medical training.

080803A: Radiology I, 3,5 - 5 op

Voimassaolo: 02.08.2012 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Tervonen, Osmo Antti

Opintokohteen kielet: Finnish

ECTS Credits:

3,5 ECTS credits /93 hours of work

Language of instruction:

Tuition shall be arranged in Finnish.

Timing:

The course unit is held during the autumn and spring semester of the third year of medical studies.

Learning outcomes:

Radiology 1

Upon completion of this first curricular unit of radiology, student should be able to understand the principle of justification of radiological studies. Additionally student should have competence to explain the most important indications for radiological studies and principles of radiological modalities, including nuclear medicine. After completing the unit, student should master basic image interpretation skills of radiographs and know the most common findings of these examinations.

Contents:

General introduction to radiology (techniques) and indications, principle of justification, emergency radiology, musculoskeletal radiology, thoracic radiology, abdominal radiology, neuroradiology and nuclear medicine and molecular imaging

Mode of delivery:

The mode of delivery for the course unit is face-to-face teaching.

Learning activities and teaching methods:

The implementation methods of the course vary.

Interactive lectures consist of 32 hours. There will be 20 hours of guided small group teaching events (image interpretation, Image acquisition [x-ray], Ultrasound anatomy, Emergency duty, Ultrasound clinical surveillance) and c. 40 hours of studying privately or in a group.

Target group:

Target group are the 3rd year medical students (MD).

Prerequisites and co-requisites:

Prerequisite for participation to the course unit is the completion of preclinical studies (first 2 years of medical school)

Recommended optional programme components:

There are no alternative courses.

Recommended or required reading:

Books: Either, Soimakallio (Editor): Radiologia [in Finnish] or Mettler, FA (Editor): Essentials of Radiology

100-tärkeintä rtg-kuvaa (National teaching image base): Distributed through university Optima online environment.

Assessment methods and criteria:

This course unit utilizes multiple choice exam assessment.

Grading:

The course unit utilizes passed/failed grading scale. The grade will not be given until all the obligatory teaching courses are completed.

Person responsible:

Osmo Tervonen, Professor

Jaakko Niinimäki, Professor

Working life cooperation:

No

compuls22

080803A-02: Radiology 1, and radiation and its safe use, group studies, 2,5 op

Voimassaolo: 02.08.2012 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Tervonen, Osmo Antti
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080803A-03: Radiology 1 and radiation and its safe use, examination, 1 op

Voimassaolo: 02.08.2012 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Tervonen, Osmo Antti
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080813A: Radiology II, 2 op

Voimassaolo: 01.08.2014 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Jaakko Niinimäki, Tervonen, Osmo Antti
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080712A: Surgery I, 16 - 24 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Juvonen, Tatu Sakari
Opintokohteen kielet: Finnish

ECTS Credits:

16 ECTS/428 hours of work

Language of instruction:

The tuition shall be arranged in Finnish.

Timing:

During third year.

C 5-6

Learning outcomes:

The students will be made familiar with surgical thinking, working in the first aid clinic, in the operating room and surgical ward. They will learn: 1) How to speak to and examine a surgical patient, 2) The diagnostics of surgical diseases, 3) The basics of surgical care, and 4) The most common surgical procedures at public health care level.

Contents:

Theoretical part :

The basics in General surgery, Gastroenterological surgery, Urology, Orthopedics and Traumatology and in Thoracic and Vascular surgery.

Practical part:

Supervised and independent clinical examination and planning of treatment strategy, the surgical rounds in different surgical divisions, the seminar days, the surgical wound care, teaching in OR, teaching in the surgical out-patients clinic and the practice in surgical wards.

Mode of delivery:

The tuition will be implemented as blended teaching (mainly face-to-face teaching, but there might be some web-based teaching)

Learning activities and teaching methods:

Lessons from different field of surgery, seminar days concerning important surgical topics, the group teachings of specific topics, clinical practices in wound care, teaching in the operating theatres, practice and teaching in surgical out-patients clinics. Preoperative care of the surgical patient.

The practice at surgical wards (both in University hospital and in some Central hospital of the Northern Finland) includes clinical examination of 6 surgical patients and the practice in operating theatres assisting in 3 operative procedures.

Contact teaching 214 h and independent teaching 214 h.

Target group:

This course of surgery is focused for medical students in the clinical phase of their studies.

Prerequisites and co-requisites:

The required prerequisite is the completion of the following courses prior to enrolling for the course unit:

040201A Anatomy

040103A Medical biochemistry and molecular biology

040106A Pharmacology and Toxicology

000119A Microbiology

040112A Physiology

Recommended optional programme components:

The other medical courses planned to be performed at the same time are as follows: Internal medicine, pathology, radiology, clinical chemistry and anesthesiology

Recommended or required reading:

Textbooks:

Roberts, Alhava, Höckerstedt, Kivilaakso: Kirurgia. Kustannus Oy Duodecim. Helsinki. 2nd ed. 2010.

Rokkanen, Slätis, Alho, Ryöppy, Huittinen: Traumatologia. Kandidaattikustannus. Helsinki. 7th ed. 2010.

Rokkanen, Tervo, Avikainen: Käytännön ortopediaa, 2003.

Taari, K., Aaltoluoma, S., Nurmi, M., Parpala, T., Tammela, T. (eds.). 2013. Urologia. Duodecim. 3rd ed.

Lecture material and other materials too.

Recommended textbooks:

Leppäniemi, A., Ala-Opas, M., Haapiainen, R., Kempainen, E., Lepäntalo, M., Pettilä, V., Sipponen, J. (eds.). 2006. Päivystyskirurgian opas.

Louhimo, I., Peltonen, J., Rintala, R. 2000. Louhimon lastenkirurgiaa. 2nd ed. Kandidaattikustannus Oy.

Höckerstedt, K., Färkkilä, M., Kivilaakso, E., Pikkarainen, P. (eds.). 2007. Gastroenterologia ja hepatologia.

Ilkka Kivirinta, Markku Järvinen; Ortopedia, 2012, Kandidaattikustannus

Assessment methods and criteria:

Participating in the group teaching, seminar days and training in surgical wards and operating rooms, propedeutic test, intermediate test I, reports of clinical examinations of surgical patients, assisting in 3 surgical operations, service at the surgical emergency room (3 times and OR (1 time). Contact teaching approximately 214 hours and independent work approximately 214 hours..

Grading:

The course unit utilizes a numerical grading scale from 1 to 5. In the numerical scale zero stands for a fail. The course grades are according to the criteria of the exam Surgery I (intermediate exam of Surgery). Passing the intermediate exam requires a score which is half of the total amount of scores.

Person responsible:

Professor Tatu Juvonen and professor Jyrki Mäkelä

Working life cooperation:

Yes.

The course of surgery includes one week surgical ward practice in OYS or other hospitals in Northern Finland and one week (four days) of practice in operation rooms of OYS.

Other information:

The final exam on Surgery will be held during the fourth year. The total score of the exam of Surgery (C5-8) is according to the score of the final exam of Surgery and this can be increased by the total scores of the intermediate exam of Surgery (Surgery I) and of Abdominal Surgery.

Compulsory

080712A-02: Surgery, exam, 3 - 6 op

Voimassaolo: 01.08.2005 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Juvonen, Tatu Sakari
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080712A-05: Clinical studies, 1 op

Voimassaolo: 01.08.2013 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Juvonen, Tatu Sakari
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080712A-06: Small group classes, 8 op

Voimassaolo: 01.08.2013 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Juvonen, Tatu Sakari
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080712A-07: Clinical practice, 1 op

Voimassaolo: 01.08.2013 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Juvonen, Tatu Sakari
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080712A-08: Theme Days Surgery, 2 op

Voimassaolo: 01.08.2013 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Juvonen, Tatu Sakari
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080712A-09: Preliminary Examination Surgery, 1 op

Voimassaolo: 01.08.2013 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Juvonen, Tatu Sakari
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080714A: Surgery II, 1 - 8 op

Voimassaolo: 01.08.2010 -
Opiskelumuoto: Intermediate Studies
Laji: Course
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Juvonen, Tatu Sakari
Opintokohteen kielet: Finnish

ECTS Credits:

8 ECTS

Language of instruction:

Finnish.

Timing:

During fourth year

C 7- C 8

Learning outcomes:

The students will be made familiar with surgical thinking, working in the first aid clinic, in a surgical operating-room and surgical ward. They will learn: 1) How to speak to and examine a surgical patient, 2) The diagnostics of surgical diseases, 3) The basics of surgical care, and 4) The most common surgical procedures at public health care level.

Contents:

Pediatric surgery, Orthopedic, Thoracic and Vascular surgery, General surgery, Hand surgery and Plastic surgery and Urology.

Mode of delivery:

The tuition will be implemented as blended teaching (mainly face-to-face teaching, but there might be some web-based teaching)

Learning activities and teaching methods:

Lessons from different field of surgery, seminar days concerning important surgical topics, the group teachings of specific topics, clinical practices in wound care, teaching in the operating theatres, practice and teaching in surgical out-patients clinics. Preoperative care of the surgical patient.

The practice at surgical wards (both in University hospital and in some Central hospital of the Northern Finland) includes clinical examination of 6 surgical patients and the practice in operating theatres assisting in 3 operative procedures.

Target group:

This period is for medical students in the clinical phase of their studies.

Prerequisites and co-requisites:

The required prerequisite is the mainly completion of the following courses prior to enrolling for the course unit: Surgery 1

Recommended optional programme components:

The course units that are recommended for completion simultaneously: Internal medicine, pathology and anesthesiology

Recommended or required reading:

Textbooks:

Roberts, Alhava, Höckerstedt, Kivilaakso: Kirurgia. Kustannus Oy Duodecim. Helsinki. 2nd ed. 2010.

Rokkanen, Slätis, Alho, Ryöppy, Huittinen: Traumatologia. Kandidaattikustannus. Helsinki. 7th ed. 2010.

Rokkanen, Tervo, Avikainen: Käytännön ortopediaa, 2003.

Taari, K., Aaltoluoma, S., Nurmi, M., Parpala, T., Tammela, T. (eds.). 2013. Urologia. Duodecim. 3rd ed.

Lecture material and other materials too.

Recommended textbooks:

Leppäniemi, A., Ala-Opas, M., Haapiainen, R., Kemppainen, E., Lepäntalo, M., Pettilä, V., Sipponen, J. (eds.). 2006. Päivystyskirurgian opas.

Louhimo, I., Peltonen, J., Rintala, R. 2000. Louhimon lastenkirurgiaa. 2nd ed. Kandidaattikustannus Oy.

Höckerstedt, K., Färkkilä, M., Kivilaakso, E., Pikkarainen, P. (eds.). 2007. Gastroenterologia ja hepatologia.

Rokkanen, Tervo, Avikainen. 2003. Käytännön ortopediaa, 2003.

Assessment methods and criteria:

Taking part into the group teaching events, seminar days, final examination, reports of examinations of surgical patients, assisting in surgical operations, practices in surgical wards and surgical operative units and in emergency room.

Grading:

The course unit utilizes a numerical grading scale from 1 to 5. In the numerical scale zero stands for a fail. The course grades are according to the criteria of the final exam of course of Surgery II. Passing the final exam requires a score which is half of the total amount of scores.

The total score of Surgery (C5-8) is according to the score of the final exam of Surgery and this can be increased by the total scores of the intermediate exam of Surgery (Surgery I) and of Abdominal Surgery.

Person responsible:

Professor Tatu Juvonen and professor Jyrki Mäkelä

Working life cooperation:

No

Other information:

No other information

Compulsory

080714A-01: Small Group Classes, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Juvonen, Tatu Sakari

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080714A-04: Final Examination, 4 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Juvonen, Tatu Sakari
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080714A-03: Clinical Practice, 1 op

Voimassaolo: 01.08.2014 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Juvonen, Tatu Sakari
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080714A-02: Theme Days, 2 op

Voimassaolo: 01.08.2014 -
Opiskelumuoto: Intermediate Studies
Laji: Partial credit
Vastuuyksikkö: Medicine
Arvostelu: 1 - 5, pass, fail
Opettajat: Juvonen, Tatu Sakari
Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080001Y: Treatment of critically ill patient and patient safety, 4 - 5 op

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Alahuhta, Seppo Matias

Opintokohteen kielet: Finnish

ECTS Credits:

5 ECTS credits

Language of instruction:

Finnish

Timing:

The sixth year (C11-12), autumn and spring semester

Learning outcomes:

Upon completion of the course, the student:

- recognizes and makes a systematic clinical examination of the patient with acute life-threatening condition using ABCDE-protocol
- shows situational intelligence both as a leader and a member of a team, recognizes his own and other team members' competencies
- communicates effectively as a team leader and as a team member
- as a member of an interprofessional team is competent in taking care of the patients with life-threatening condition, or other acute condition needing treatment such as child birth
- knows the organisation of the medical emergency service and knows doctor's duties and roles in mass accidents.

- knows how do the triage
- is motivated to continuous learning and training in emergency medicine, and to refresh resuscitation skills.
- is familiar with the principles of patient safety.

Contents:

Examination of patients' vital signs. Examination and treatment of patients with acute life threatening condition: shock, septicemia, cardiorespiratory failure, resuscitation, neurological acute conditions and unconsciousness. Childbirth outside the hospital.

General organisation of rescue work and doctors role in it. Medical rescue work planning and the role of continuous training. Triage. Refreshing of resuscitation skills.

Crisis research management. Patient safety.

Mode of delivery:

Blended teaching.

Learning activities and teaching methods:

Obligatory OSCE-examination and seminar on critically ill patient and medical emergency service.

Lectures, simulation training and independent study

Target group:

Students from medicine together with OUAS students from different health disciplines

Recommended or required reading:

Akuuttihoito-opas. M. Mäkijärvi, Veli-Pekka Harjola, H. Pälvä, J. Valli, E. Vaula (toim.). Kustannus Oy Duodecim 2015.

Alahuhta S, Ala-Kokko T, Kiviluoma K, Ruokonen E, Silfvast T. Peruselintoimintojen häiriöt ja niiden hoito. Kustannus Oy Duodemin, 2014 tai uusin painos.

Assessment methods and criteria:

Attending to all compulsory teaching: lectures, small-group simulation sessions, and exam.

Grading:

pass/fail

Person responsible:

Professor of anaesthesiology Seppo Alahuhta

Working life cooperation:

Yes. Simulation environment is equal to the real life situation.

Other information:

The course is organized jointly by anesthesiology, general medicine, gynecology, internal medicine, neurology, respiratory diseases, and surgery. In addition the course is organized interprofessionally together with OUAS

040300A: Maturity exam (native language), 0 op

Opiskelumuoto: Advanced Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Outi Mikkola

Opintokohteen kielet: Finnish

Contents:

Student writes an essay in his/her native language about the topic of the thesis to show a good command of the language and the content of the thesis. If the student's native language is another than Finnish or Swedish the Faculty will define separately the requirements for the language test.

Learning activities and teaching methods:

Writing an essay.

Assessment methods and criteria:

The essay is examined first by the supervisor of the thesis and then by the language teacher.

Grading:

Pass / fail

080705S: Thesis, 20 op

Opiskelumuoto: Advanced Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

ECTS Credits:

20 ECTS credits

Language of instruction:

Finnish

Timing:

1.-6. academic years

Learning outcomes:

The thesis in the degree Programmes of Medicine and Dentistry is a scientific work which shows the student's ability to scientific thinking and research. The student gets acquainted with scientific research and is able to evaluate research publications, the student is capable of independent and responsible work as part of a scientific community, develops his/her problem solving skills as well as critical and ethical thinking, and increases his/her readiness to scientific communication.

Contents:

Writing a study plan which includes the research plan. Supervised research and writing a thesis or scientific article (student as a first or second writer). Oral presentation of the research.

Mode of delivery:

Supervised research work and self-study

Learning activities and teaching methods:

Formulation of research plan and independent research work under the supervision of the teacher. Writing a thesis and oral presentation. Maturity exam.

Target group:

Graduate students of medicine

Prerequisites and co-requisites:

The research plan and teaching agreement form "tutkielman ohjaussopimus" has to be accepted before returning the thesis.

Recommended optional programme components:

080705S-01 Thesis, research plan

040300A Maturity exam

Recommended or required reading:

As agreed with the mentor teacher

Assessment methods and criteria:

Accepted study and research plan, accepted thesis or scientific article, oral presentation.

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

Grading:

Pass / fail.

Person responsible:

Dean of Education Olli Vainio

Working life cooperation:

According to accepted research plan and as agreed with the mentor teacher.

Other information:

<http://www.medicine oulu.fi/peruskoulutus/laaketieteen-koulutusohjelma/tutkielma-ja-kypsyysnayte.html>

Compulsory

080705S-01: Thesis, Study plan, 4 op

Opiskelumuoto: Advanced Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

ECTS Credits:

0 ECTS Credits

Language of instruction:

finnish

Timing:

1.-5. study year

Learning outcomes:

The student can specify research problems to his/her research, choose the research method and formulate a blueprint for collecting, processing and reporting the matter, and the time scale for the research.

Contents:

The student formulates a research plan, in which he/she introduces context of his/her research, research problems, research method and the blueprint for collecting, processing and reporting the matter, and the time scale for the research.

Mode of delivery:

self-study

Learning activities and teaching methods:

The student establishes with a mentoring teacher a teaching agreement. The agreement form "Tutkielman ohjaussopimus" is found in [home page of Faculty of Medicine](#) and in Optima.

Target group:

Medical students

Prerequisites and co-requisites:

No

Recommended optional programme components:

080705S Thesis

040300A Maturity exam

Recommended or required reading:

As agreed with mentor teacher.

Assessment methods and criteria:

The student returns the agreement form and the plan for research to office of Faculty of Medicine and copies of them to the mentoring teacher.

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

Grading:

The teacher subscribes the research plan and the teaching agreement form. The accepted plan for research will be registered to completed courses in WebOodi.

Person responsible:

Dean of Education Olli Vainio

Working life cooperation:

No

Other information:

Accepted research plan is one of the requirements to eligibility for 5th year locum post.

080705S-02: Thesis, 16 - 20 op

Opiskelumuoto: Advanced Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

080707S: Practical training, 3 - 24 op

Opiskelumuoto: Practical Training

Laji: Practical training

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

Voidaan suorittaa useasti: Kyllä

Ei opintojaksokuvauksia.

Compulsory

080707S-01: Practical training, 6 op

Opiskelumuoto: Practical Training

Laji: Practical training

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

Voidaan suorittaa useasti: Kyllä

Ei opintojaksokuvauksia.

Tutkintorakenteisiin kuulumattomien opintokokonaisuuksien ja -jaksojen kuvaukset

042001Y-04: Clinical Anatomy, 1 op

Voimassaolo: 01.08.2011 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

ECTS Credits:

1 ECTS/ 25-30 hours of work

Language of instruction:

Finnish

Timing:

The course is organized during spring semester of third year. It is recommended to complete the course after the radiology course.

Learning outcomes:

Upon completion of the course, the student will be able to use clinical viewer of computer tomography and magnetic resonance image stacks. Selected anatomical structures are analyzed as they are visualized clinically in 3D

Contents:

The basic contents are a lecture and introductory exercises, which are conducted with clinical viewer software. The 3D clinical CT and MR image stacks are studied with help of anatomical books, anatomical models and other sources.

Mode of delivery:

After the lecture the student performs the introductory exercises with the image viewer and after that starts the electronic examination in Optima portal.

Learning activities and teaching methods:

Lectures 2h/Self-study

Target group:

The course is targeted for the third year medical students to support the skills of radiological 3D clinical anatomy.

Prerequisites and co-requisites:

In addition to the first year anatomy course the radiology course should be mainly lectured.

Recommended optional programme components:

The course is an independent entity and does not require additional studies carried out at the same time.

Recommended or required reading:

Through the Optima portal the student will receive the clinical viewer loaded with three dimensional image stacks. The portal provides also the lecture material and introductory texts for the imaging modalities. Links for the electronic books are provided as well.

Assessment methods and criteria:

The electronic examination has 20 image questions.

Grading:

The assessment is pass/fail. The level of acceptance is 10/20.

Person responsible:

Professor Juha Tuukkanen

Working life cooperation:

No

042001Y-05: Clinical Pathology, 1 op

Voimassaolo: 01.08.2011 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

ECTS Credits:

1 ECTS credits/27 hours of work

Language of instruction:

Finnish

Timing:

C7(4th year, autumn)

Learning outcomes:

This course focuses on the essential features of etiology, pathogenesis and structural changes of diseases of lower respiratory system. Pathophysiological aspects of diseases are reviewed as well as relationship between the abnormal function and structure and the clinical manifestations of disease, such as symptoms and clinical findings.

After the course, students should be able to describe etiology and pathogenesis of the most important diseases of each organ system, and the structural abnormalities of such diseases. The student should be able to explain how structural and functional abnormalities manifest themselves as clinical symptoms and signs. In addition, students should be able to identify and classify the most common types of macroscopic and microscopic abnormalities in different organ systems. He/she should know the most important sources of error in surgical pathological and cytological diagnostics, and be prepared on a proper teamwork with pathologists in his/her clinical work, for the best of his/her patients.

Contents:

Pathology of lung and pleura and their clinical and radiological correlations.

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

Lectures 4 h, theme days 4 h, practical training 2 h,

exam 0,5 h

Independent work 16 h

Target group:

Medical students

Prerequisites and co-requisites:

040108A General pathology; 080222A Organ pathology, part I

Recommended optional programme components:

Teaching and exam are coordinated with the course 080223A Organ pathology part II ja with the course 080205A Lung diseases

Recommended or required reading:

Mäkinen M. et al. Patologia, Duodecim, 2012.

Or: Cross SS: Underwood's Pathology, a clinical approach (6th ed. 2013)

Or: Underwood JCE: General and systematic pathology (5th ed. 2009).
 Or: Kumar V. et al.: Robbins Basic Pathology, (9 th ed. 2012 tai 7th ed. 2007).
 Other: Kumar V. et al.: Robbins and Cotran, Pathologic basis of disease (8 th ed. 2010 or 7th ed. 2005);
 Rubin & Strayer; Rubin's Pathology (2005).

Lecture handouts; Guidebook for microscopy practicals, Guidebook for autopsy (in Finnish). Material associated with virtual pathology teaching program (in Finnish).

Assessment methods and criteria:

Attendance in compulsory teaching, exam.

Grading:

There is a common exam for courses 080223A Organ pathology part II and Pathology integrated studies 042001Y-05, with grading 1-5 and fail.

Person responsible:

Tuomo Karttunen

Working life cooperation:

No

042001Y-02: Clinical Physiology 1, 1 - 2 op

Voimassaolo: 01.08.2011 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Vuolteenaho, Olli Jaakko Tuomas

Opintokohteen kielet: Finnish

ECTS Credits:

2 ECTS credits/ 54 hours of work

Language of instruction:

Finnish

Timing:

C5-C6

Learning outcomes:

Upon completion of the course, the student will be familiar with basic methods of clinical physiology and clinical neurophysiology, and their application to clinical work.

Contents:

Basic methods of clinical physiology and clinical neurophysiology and their application in patient care, and physiology lectures and independent study integrated to the disciplines of the 3rd study year.

Mode of delivery:

Lectures and demonstrations.

Learning activities and teaching methods:

Lectures 16 h, demonstration 2 h, examination 1 h, self-study 35 h.

Target group:

Medical students.

Prerequisites and co-requisites:

Physiology (040112A, 15 ECTS credits).

Recommended optional programme components:

Internal Medicine, Pulmonary Medicine, Anesthesiology.

Recommended or required reading:

Lectures and lecture materials

Assessment methods and criteria:

Attending the demonstrations in compulsory.

Multiple choice examination.

Read more about assessment criteria at the University of Oulu webpage (link)

Grading:

Pass/fail

Person responsible:

Professor Olli Vuolteenaho

042001Y: Clinical Studies, 7 op

Voimassaolo: 01.08.2011 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Olli Vainio

Opintokohteen kielet: Finnish

Ei opintojaksokuvauksia.

903008Y: Conversational Skills in German, 1,5 op

Voimassaolo: 01.08.1995 -

Opiskelumuoto: Language and Communication Studies

Laji: Course

Vastuuyksikkö: Languages and Communication

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: German

Proficiency level:

A2-B1 on the CEFR scale. If the student wishes to include this course in his/her compulsory foreign language studies, the student must prove that he/she has attained the proficiency level of B1 prior to taking the course.

Status:

The course can be approved as a partial completion of the course Foreign Language. It may also be taken as a separate optional course.

Required proficiency level:

At least 3 years of German studies at school. If you wish to choose German as the language of your compulsory foreign language studies, you must have completed German as B2, A2 or A1 language at school or have equivalent knowledge. For more information about these requirements, contact the course's teacher.

ECTS Credits:

1,5 credits / 40 h of student's work

Language of instruction:

German

Timing:

Autumn term

Learning outcomes:

Upon completion of the course the student should be able to manage in typical professional and medical-field specific communication situations in an interactive manner. He/she should be able to actively participate in discussions about medical topics. He/she should be able to justify his/her views on the different matters as well as discuss the pros and cons of different options.

Contents:

The course consists mainly of oral exercises, which can take the form of dialogues, discussions in groups, role plays, simulated discussion situations etc. The student practises various professional situations (doctor seeing patients at the hospital etc.) and discusses various current medicine-related topics. Some of the topics covered are agreed upon with the participants at the beginning of the course.

Mode of delivery:

Contact teaching

Learning activities and teaching methods:

This course will be completed by participating the course 903053Y Conversational Skills in German / Mündliche Kommunikation - 2 ECTS, however the scope for medical students will be only 1,5 credits.

Target group:

Students of the Faculty of Medicine

Prerequisites and co-requisites:

See Required proficiency level

Recommended optional programme components:

-

Recommended or required reading:

Material prepared by the teacher.

Assessment methods and criteria:

Continuous assessment. Completion of the course requires regular and active participation in teaching and completion of the given assignments.

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

Grading:

1 - 5 or pass / fail

Person responsible:

Oliver Jarde

Working life cooperation:

-

Other information:

Course will be held at Linnanmaa campus. There will be an information session in September where students may register for the course. It is also possible to register in WebOodi.

041002Y-05: Environment, Lifestyle and Health Studies, 1 op

Voimassaolo: 01.08.2011 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

ECTS Credits:

1 ECTS

Language of instruction:

Finnish

Timing:

5th year

Learning outcomes:

Sexual Health (0.5 ECTS CR)

Global health (0,5 ECTS cr): The student will recognize the main challenges of global health/global public health. The student will understand that global health/morbidity is strongly associated with the availability and allocation of resources, the undisturbed development of societies and functionality of political systems.

Contents:

Sexual Health (0.5 ECTS CR)

A Theme day of sexual health included in the courses of gynaecology and venereology. Female sexual disorders, the impact of pregnancy and child birth for human sexuality. Sexuality in intimate relationship. The impact of diseases such as cancer for sexual health.

Global health (0,5 ECTS cr): Including contents from the following topics

- Health, education, poverty and the economy
- Ethical and human rights concerns in global health
- An introduction to health systems
- Culture and health
- Women's and child health
- Communicable and non-communicable diseases
- Unintentional injuries and violence
- Natural disasters and complex humanitarian emergencies
- Reproductive health
- Global mental health
- Management and planning of global health
- Pharmaceuticals
- Evaluations of large-scale health programs
- Cooperation in global health

Mode of delivery:

Sexual Health (0.5 ECTS CR)

Global health (0,5 ECTS cr)

Learning activities and teaching methods:

Sexual Health (0.5 ECTS CR)

Global health (0,5 ECTS cr): Theme day type course consists of group works (7 h) in the Optima environment and the theme day (6 h) where the main results of group works are summarized, presented and discussed. Students are working as 5-6 person groups. Every group will receive 1–2 chapters of the textbook to work with it. The group has to summarize the relevant information and give 5–10 minutes presentation based on the content of the textbook in the theme day.

Recommended and required reading:

Global health (0,5 ECTS cr): 1) Richard Skolnik: Global health 101. 2. edition, 2012, Jones & Bartlett Learning, LLC, an Ascend Learning Company, Burlington, USA. and 2) Michael H. Merson, Robert E. Black, Anne J. Mills: Global Health: Diseases, Programs, Systems, and Policies. 3. edition, 2012, Jones & Bartlett Learning, LLC, an Ascend Learning Company, Burlington, USA.

Target group:

Medical students.

Prerequisites and co-requisites:

No.

Assessment methods and criteria:

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

Grading:

The course unit utilizes verbal grading scale “pass/fail”

Person responsible:

The person in charge of the ELH-studies is Timo Hugg

Following persons are in charge of the sub-tracks:

Sexual health: Teija Parpala

Global health Timo Hugg

Working life cooperation:

No.

041002Y-06: Environment, Lifestyle and Health Studies, 1 op

Voimassaolo: 01.08.2011 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Timo Hugg

Opintokohteen kielet: Finnish

ECTS Credits:

1 ECTS

Language of instruction:

Finnish

Timing:

6th year

Learning outcomes:

Final examination 1 ECTS cr (Timo Hugg). The student will recognize the needs and challenges linked to health behavior change. The student is aware of the importance of health behavior change in the well-being of patient. The student is able to utilize his/her knowledge in the implementation of health behavior change.

Contents:

The content of final examination includes the following themes:

- Dietary behaviors: Promoting healthy eating
- Physical activity behavior
- Addressing tobacco use and dependence
- Alcohol prevention and treatment: Interventions for hazardous, harmful and dependent drinkers
- Reducing stress to improve health

Mode of delivery:

Self-directed learning

Learning activities and teaching methods:

Examination in the Optima environment.

Target group:

Medical students.

Prerequisites and co-requisites:

Other studies in the ELH track completed.

Recommended or required reading:

Kristin A. Riekert, Judith K. Ockene, Lori Pbert (eds.): The handbook of Health Behavior Change. 4. Edition, 2014, Springer Publishing Company, LLC, New York. Chapters: 7-12. Availability: as an e-book through the internet pages of library.

Assessment methods and criteria:

Participation to final examination and accepted completion of examination

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

Grading:

The course unit utilizes verbal grading scale "pass/fail"

Person responsible:

The person in charge of the ELH-studies is Timo Hugg

Working life cooperation:

No

041002Y-04: Environment, Lifestyle and Health Studies, 1 op

Voimassaolo: 01.08.2011 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

ECTS Credits:

1 ECTS

Language of instruction:

Finnish

Timing:

4th year

Learning outcomes:

Rehabilitation (0.5 ECTS CR) The student is aware of the principles of medical rehabilitation.

ELH – advanced studies (0,5 ECTS CR): The student is aware of the importance of addiction medicine, nutrition, physical activity / exercise and environmental health in the maintenance and promotion of health. The student is able to understand that the importance of before mentioned themes is based on strong scientific evidence and is able to utilize the knowledge in his/her work.

Contents:

Rehabilitation: Topics cover the field of medical rehabilitation focusing on functional ability.

ELH – advanced studies: Including contents from the following topics

- Intoxicants, health and guidelines in the light of the most recent scientific evidence
- Nutrition, health and guidelines in the light of the most recent scientific evidence
- Physical activity, exercise and health and guidelines in the light of the most recent scientific evidence
- Environment, health and guidelines in the light of the most recent scientific evidence

Mode of delivery:

Rehabilitation (0.5 ECTS CR) Half a day theme day type course consists of short 15 min lectures and periods of discussion.

ELH – advanced studies (0,5 ECTS cr)

Learning activities and teaching methods:

Rehabilitation (0.5 ECTS CR)

ELH – advanced studies: Theme day type course consists of lectures and periods of discussion (6 h) and group work (7 h). Students are working as 5-6 person groups. Every group will receive a scientific article related to theme. The task is to find answers to the questions previewed, summarize the main findings of articles and merge contents of each subtheme as a one entity in the Optima environment and, give a short summary type presentation (10-15 min) from the combined results in the theme day.

Recommended and required reading:

ELH – advanced studies: Lecture notes and a scientific article

Target group:

Medical students.

Prerequisites and co-requisites:

No.

Assessment methods and criteria:

The assessment of the course unit is based on the learning outcomes of the course unit.

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

Grading:

The course unit utilizes verbal grading scale "pass/fail"

Person responsible:

The person in charge of the ELH-studies is Timo Hugg

Following persons are in charge of the sub-tracks:

Rehabilitation Mauri Kallinen

ELH – advanced studies: Timo Hugg

Working life cooperation:

No.

041002Y: Environment, Lifestyle and Health Studies, 4 op

Voimassaolo: 01.08.2011 -

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Timo Hugg

Opintokohteen kielet: Finnish

ECTS Credits:

4 ECTS credits/ 106 hours of work

Language of instruction:

Finnish

Timing:

1.-6. academic years

Studies in question belong to track of studies that continue integrated throughout the curriculum

Learning outcomes:

The outcomes of ELH- studies are similar to the outcomes of the ELH-string entity

ELH- track consist of following sub-tracks:

Rehabilitation

Health exercise and sports medicine

Addiction medicine

Nutrition

Environmental health

Upon completion of the course, the student will be able to work in an interprofessional team and

-guide towards right kind of nutrition and exercise and give reasons for the advice

-handle drug abusers properly and recognize and define the need of treatment, and plan it

-describe the influence of environment to one's health and to discuss matters concerning environmental health

-recognize the need of rehabilitation and plan a rehabilitation program

Contents:

1st year

The topics of the lectures belonging to the Nutrition-side-track

lipid-and water soluble vitamins(6h), minerals(2h)

1. The synthesis of vitamins/minerals

2. The influence of vitamins/ minerals on metabolism and their tasks in your system

3. The daily need of vitamins/minerals

4. The causes and consequences of deficiency of vitamins/minerals

The topics of the lectures of addiction medicine (4h)

1. Alcohol
2. Drugs

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

1st year:

start seminar jointly with public health and interprofessional collaboration course

lectures and writing tasks:

- Nutrition: lectures 8 h, self-study 5 h
- Addiction medicine :compulsory lectures 4 h and self-study which includes writing task

Programme for 4th year and 6th year will be informed later.

Target group:

Graduate students of medicine.

Prerequisites and co-requisites:

No.

Recommended optional programme components:

ELH studies are part of studies including the environment, lifestyle and health (ELH) –track.

Assessment methods and criteria:

1st year:

- The lectures in nutrition will be examined in the course exams of Medical Biochemistry
- Addiction medicine includes compulsory lectures and a writing task

The assessment of the course unit is based on the learning outcomes of the course unit.

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

Grading:

The course unit utilizes verbal grading scale “pass/fail”

Person responsible:

The person in charge of the ELH-studies is Tuula Kaisto

Following persons are in charge of the sub-tracks

Rehabilitation: Jaro Karppinen

Health exercise and sports medicine: Raija Korpelainen

Addiction medicine: Pekka Laine

Nutrition: : Olavi Ukkola

Environmental health: Timo Hugg

Working life cooperation:

No.

Other information:

-

041001Y: Evidence Based Medicine, 3,5 - 5 op

Voimassaolo: 01.08.2011 -

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Marjo Renko

Opintokohteen kielet: Finnish

ECTS Credits:

4 ECTS credits

Timing:

1-6. yrs

Learning outcomes:

After completing EBM studies the student is able to use various information sources and to base clinical decisions on the best available evidence.

Contents:

Evidence based medicine (EBM) is the core of modern medicine where all clinical procedures from diagnosis to treatment are based on scientific evidence. Tools to perform EBM are taught from the very beginning of medical studies. The teaching includes for example principles of causation, basics of information technology,

biostatistics, epidemiology and clinical decision making. The idea of EBM will be included in all courses during studies.

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

1. yr (0,5 cr):

Lecture 1 *What is EBM?* Marjo Renko, 15.11.2011

Lecture 2 + group work, Matti Uhari, January 2012

2.yr (0.5 cr):

Lecture 1 *Principles of Epidemiology and what they mean in modern medicine*, Marjo Renko, Matti Uhari

Lecture 2 *Sickness and health. How to appraise diagnostic testing?* Marjo Renko, Matti Uhari

3.lkv (0.5 cr)

Lectures 1 and 2 *Systematic clinical reasoning* Marjo Renko, Matti Uhari

4. lkv (0.5 cr)

Lecture 1 *Study designs*

Lecture 2 *Probability and what does it give to a doctor? The meaning of P-value*

Lecture 3 *Comparing groups with statistical tests*

Marjo Renko, Matti Uhari

5. lkv (1 cr)

Lecture series: *EBM and information sources. How to perform EBM? Further on systematic clinical reasoning.*

Marjo Renko, Matti Uhari

6. lkv (1 cr)

Lecture series: *Epidemiology for clinicians.* Marjo Renko, Matti Uhari

Target group:

Medical students. 1st and 2nd year dental students.

Prerequisites and co-requisites:

No

Recommended optional programme components:

EBM-studies are part of studies including the Evidence Based Medicine -track

Recommended or required reading:

Dan Mayer: *Essential Evidence-Based Medicine*. Carl Heneghan & Douglas Badenoch: *Evidence-based Medicine Toolkit*

Assessment methods and criteria:

Lectures and group works. Presence controlled.

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

Grading:

Pass/fail

Person responsible:

Professor Matti Uhari, Senior Lecturer Marjo Renko

041001Y-03: Evidence Based Medicine-studies, 0,5 op

Voimassaolo: 01.08.2011 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

ECTS Credits:

0,5 ECTS

Timing:

3rd year

Learning outcomes:

The student understands what is normal and abnormal, the principles of causation and clinical reasoning and is able to appraise diagnostic tests.

Contents:

The teaching includes principles of causation, basics of information technology, biostatistics, epidemiology and clinical decision making. Estimating the appropriateness of diagnostic tests.

041001Y-05: Evidence Based Medicine-studies, 1 op**Voimassaolo:** 01.08.2011 -**Opiskelumuoto:** Intermediate Studies**Laji:** Partial credit**Vastuuyksikkö:** Medicine**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Marjo Renko**Opintokohteen kielet:** Finnish**ECTS Credits:**

1 ECTS

Timing:

5th year

Learning outcomes:

The students knows how search and appraise medical literature and how to perform systematic clinical reasoning.

Contents:

Practising EBM with real patient problems. More about systematic reasoning

040015Y: Health Care Ethics, 1 - 3,5 op**Opiskelumuoto:** General Studies**Laji:** Course**Vastuuyksikkö:** Medicine**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Mäkelä, Jyrki Tapani**Opintokohteen kielet:** Finnish**Voidaan suorittaa useasti:** Kyllä**ECTS Credits:**

Part 1: 1cr

Part 2: 1 cr

Part 3: 1 cr

Language of instruction:

Finnish

Timing:

Part 1: 1st year autumn and spring term

Part 2: 5th year

Part 3: 6th year autumn term

Learning outcomes:

Part 1: Upon completion of the course, the student will be able to use and define the basic concepts of medical ethics and their basis. The student will be able reflect his or her own value system and discuss his or her relation to the laws, norms, ethics and the value base of the society. He or she will also be able to take part in ethical discussion. The student will be able to evaluate the value of learning, what he or she has learned and, his or her responsibility in it.

Part 2: Upon completion of the course, the student will be able to contemplate and discuss the ethical issues involved in clinical work and how to apply them to practice. He or she will also be able to contemplate and discuss the issues involved in research ethics. The student will be able to recognize and evaluate his or her own attitudes towards the issues of health care ethics and the ethical questions concerning the beginning and the end of life, and their background.

Part 3: Upon completion of the course, the student will able to recognize the social responsibility of the medical profession and to depict the basics of the professional communication. He or she will also be able to apply the principles that guide the medical profession to practice.

Contents:

Part 1: The ethical and judicial basis of the medical profession, the common value base and principles in health care.

Part 2: The ethical questions of different patient groups and individual patients in clinical practice, the principles of research ethics, ethically acceptable application of scientific information to clinical practice, the ethical questions of the beginning and the end of life.

Part 3: The current social challenges in health care ethics, a physician as a part of the health care system.

Mode of delivery:

Face-to-face teaching.

Learning activities and teaching methods:

Part 1: Lectures 3 x 90 min, 1 x 90 group discussion with teacher, contemplation assignment, tutoring

Part 2: Lectures 1 x 90min, seminar and theme day, contemplation assignment.

Part 3: Lectures 1 x 90min and theme day, contemplation assignment, tutoring

Target group:

Medical students, dental students.

Prerequisites and co-requisites:

No.

Recommended optional programme components:

The course is part of Professional development in medicine –studies including into new curriculum of Medicine

Recommended or required reading:

[Lääkäriin etiikka](#) (2005) Finnish Medical Association (in Finnish). In addition other scientific literature according to student's choice.

Assessment methods and criteria:

Part 1: Lectures, group discussion, contemplation assignment, learning diary

Part 2: Lectures and theme day, contemplation assignment

Part 3: Lectures and theme day, contemplation assignment

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

Grading:

Pass/fail

Person responsible:

Minna Soinio-Kivari.

Working life cooperation:

No.

040015Y-04: Health Care Ethics, 1 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: General Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Mäkelä, Jyrki Tapani

Opintokohteen kielet: Finnish

Voidaan suorittaa useasti: Kyllä

ECTS Credits:

1 ECTS

Language of instruction:

Finnish

Timing:

6th year autumn term

Learning outcomes:

Upon completion of the course, the student will be able to recognize the social responsibility of the medical profession and to depict the basics of the professional communication. He or she will also be able to apply the principles that guide the medical profession to practice. The student will be able to recognize and evaluate his or her own attitudes towards the ethical questions concerning the end of life, and their background.

Contents:

The current social challenges in health care ethics, a physician as a part of the health care system.

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

Lectures 3 x 90min and theme day, contemplation assignment, tutoring

Target group:

Medical students.

Prerequisites and co-requisites:

No.

Recommended optional programme components:

The course is part of Professional development in medicine –studies including into new curriculum of Medicine

Recommended or required reading:

[Lääkäriin etiikka](#) (2013) Finnish Medical Association (in Finnish). In addition other scientific literature of the student's choice.

Assessment methods and criteria:

Lectures and theme day, contemplation assignment

Grading:

Pass/fail

Person responsible:

Minna Soinio-Kivari

Working life cooperation:

No.

040015Y-03: Health Care Ethics Studies, 1 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: General Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Mäkelä, Jyrki Tapani

Opintokohteen kielet: Finnish

Voidaan suorittaa useasti: Kyllä

ECTS Credits:

1 ECTS

Language of instruction:

Finnish

Timing:

5th year spring term

Learning outcomes:

Upon completion of the course, the student will be able to contemplate and discuss the ethical issues involved in clinical work and how to apply them to practice. The student will be able to recognize and evaluate his or her own attitudes towards the issues of health care ethics and the ethical questions concerning the beginning of life, and their background.

Contents:

The ethical questions of different patient groups and individual patients in clinical practice, the principles of research ethics, ethically acceptable application of scientific information to clinical practice, the ethical questions of the beginning and the end of life.

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

Lectures 1 x 90min, seminar and theme day.

Target group:

Medical students, dental students.

Prerequisites and co-requisites:

No

Recommended optional programme components:

The course is part of Professional development in medicine –studies including into new curriculum of Medicine

Recommended or required reading:

[Lääkäriin etiikka](#) (2013) Finnish Medical Association (in Finnish). In addition other scientific literature of the student's choice.

Assessment methods and criteria:

Lectures and theme day, contemplation assignment

Grading:

Pass/fail

Person responsible:

Minna Soinio-Kivari

Working life cooperation:

No

040012Y: Knowledge and Research, 3,5 - 10 op

Voimassaolo: 01.08.2013 -

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Pentti Nieminen

Opintokohteen kielet: Finnish

Leikkaavuudet:

ay040012Y Knowledge and Research (OPEN UNI) 3.5 op

Voidaan suorittaa useasti: Kyllä

ECTS Credits:

3,5 ECTS

Timing:

1 st and 2 nd year

Learning outcomes:

The student knows the role of scientific publications, can use and evaluate information sources critically.

The student is familiar with statistical computing in the fields of medicine, dentistry and health sciences. 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 communication:

Scientific journals, research articles, critical evaluation of research findings, ethics in scientific publication, study planning, study designs, reporting.

Statistical methods:

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.

Mode of delivery:

Blended teaching

Learning activities and teaching methods:

040012Y-05 (1,5 ECTS Knowledge Management and Research, Lessons and written examination

040012Y-06 (1,0 ECTS) Knowledge Management and Research, Small group exercises

040012Y-07 (1,0 ECTS) Knowledge Management and Research, Practical project

Target group:

Medical, dental and medical wellness technology students

Prerequisites and co-requisites:

Knowledge Management and Research I

Recommended or required reading:

Material in lessons small group lessons.

Uhari M ja Nieminen P: Epidemiologia ja biostatistiikka. Second Edition. Duodecim, 2012.

Assessment methods and criteria:

Regular and active participation in the small group lessons and completion of practical projects. Written examination.

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

Pass/fail

Person responsible:

Senior lecturer Pentti Nieminen

Working life cooperation:

No

042001Y-01: Medical Biochemistry and Molecular Biology, clinical studies, 1 op

Voimassaolo: 01.08.2011 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

ECTS Credits:

1 ECTS credits / 27 hours of work

Language of instruction:

Finnish

Timing:

The course unit is held in the 3rd autumn semester.

Learning outcomes:

Aim of this course is to learn the effects of hypoxia in individual cells and organ systems.

Contents:

Regulation of hypoxia response in cells; regulation of production of red blood cells and erythropoietin; hypoxia in diseases; drugs mimicking hypoxia.

Topics of lectures may vary annually.

Mode of delivery:

Lectures, essays. Some of the lectures are integrated to course of hematology.

Learning activities and teaching methods:

Lectures 10h from which 2h is integrated to the course of hematology. Essay questions.

Target group:

Medical students.

Prerequisites and co-requisites:

-Prior courses in subject

Recommended optional programme components:

-

Recommended or required reading:

Lectures

Assessment methods and criteria:

Attendance at lectures is compulsory

Grading:

Course is evaluated with principle of fail or accepted.

Person responsible:

Prof. Peppi Karppinen

Working life cooperation:

No

042001Y-06: Medical Biochemistry and Molecular Biology, clinical studies 1, 1 op

Voimassaolo: 01.08.2011 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

ECTS Credits:

1 ECTS credits/27 hours of work

Language of instruction:

Finnish.

Timing:

The course unit is held in the autumn semester of the 5th year.

Learning outcomes:

Aim of this course is to learn basic inheritance of man and methodology used in medical genetics

Contents:

Basics of inheritance of man and selected basic methodology used in medical genetics

Mode of delivery:

Lectures with exercises

Learning activities and teaching methods:

10 hours of lectures including some exercises

Target group:

Major students

Assessment methods and criteria:

Final exam

Grading:

Pass/Fail

Person responsible:

Joni Mäki/Medical Biochemistry and Molecular Biology

Working life cooperation:

No

042001Y-07: Medical Biochemistry and Molecular Biology, clinical studies 2, 1 op

Voimassaolo: 01.08.2011 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Heljasvaara, Ritva-Leena

Opintokohteen kielet: Finnish

ECTS Credits:

1 ECTS credits / 27 hours of work

Language of instruction:

Finnish

Timing:

The course unit is held in the 6th autumn semester (prior to clinical oncology).

Learning outcomes:

The students will be introduced to mechanisms that underlie cancer development, and to the common cellular pathways affected in cancer and to the significance of tumor microenvironment to cancer development and progression.

Contents:

Basics of cancer biology, examples of targets of highly selective drugs in cancer treatment and cancer genetics

Mode of delivery:

Lectures, essays and oral presentations.

Learning activities and teaching methods:

Lectures 8 h + 2 h seminars, essays as a teamwork.

Target group:

Major students.

Recommended optional programme components:

Clinical oncology

Recommended or required reading:

Lectures.

Assessment methods and criteria:

Attendance at lectures is compulsory (80%)

Grading:

Course is evaluated with principle of fail or accepted.

Person responsible:

Docent Ritva Heljasvaara

Working life cooperation:

No

Other information:

Course is arranged prior to clinical oncology

903007Y: Medical German Text Workshop, 1,5 op**Voimassaolo:** 01.08.1995 -**Opiskelumuoto:** Language and Communication Studies**Laji:** Course**Vastuuyksikkö:** Languages and Communication**Arvostelu:** 1 - 5, pass, fail**Opintokohteen kielet:** German**Proficiency level:**

A2-B1 on the CEFR scale. If the student wishes to include this course in his/her compulsory foreign language studies, the student must prove that he/she has attained the proficiency level of B1 prior to taking the course.

Status:

Compulsory / optional

Required proficiency level:

3 years of German studies during secondary education or equivalent knowledge. If the student wishes to include this course in his/her compulsory foreign language studies, the student must prove that he/she has attained the proficiency level of B1 prior to taking the course.

ECTS Credits:

1,5 credits / 40 h of students work

Language of instruction:

German

Timing:

Every term.

Learning outcomes:

Upon completion of the course the student should be able to understand standard medical texts as well as scientific articles from the field of Medicine. He/she should be able to recognise the way the writers' personal perspectives manifest themselves in the discussed texts. He/she should be able to comment on the content of the texts and summarise the texts in Finnish. The student should be conversant with various reading strategies and be familiar with the distinctive features of written German expression.

Contents:

The student practises reading comprehension with various medical texts and completes exercises involving vocabulary and grammatical structures needed in the most common communication situations.

Mode of delivery:

Guided self-study

Learning activities and teaching methods:

This course will be completed by participating the course 903000Y Reading Comprehension in German (2 - 3 ECTS credits), however the scope for medical students will be only 1,5 credits.

Target group:

Students of the Faculty of Medicine.

Prerequisites and co-requisites:

See Required proficiency level

Recommended optional programme components:

-

Recommended or required reading:

To be agreed on at the beginning of the course.

Assessment methods and criteria:

Completion of given assignments, regular participation in the tutoring.

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

Scale 1 - 5, or pass / fail if the course is taken as optional.

Person responsible:

Kaisu Jarde

Working life cooperation:

-

Other information:

041003Y-06: Professional Development, 2 op

Voimassaolo: 01.08.2011 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Wiik, Heikki Tapani

Opintokohteen kielet: Finnish

ECTS Credits:

2 ECTS

Target group:

Medical students

Recommended or required reading:

Lecture and other material in Optima

Assessment methods and criteria:

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

Grading:

Pass/fail

Person responsible:

Päivi Lindholm

041003Y: Professional Development in Medicine Studies, 3 op

Voimassaolo: 01.08.2011 -

Opiskelumuoto: General Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Olli Vainio

Opintokohteen kielet: Finnish

ECTS Credits:

3 ECTS credits /81 hours of work

Language of instruction:

Finnish

Timing:

1.-6. academic years

Studies in question belong to track of studies that continue integrated throughout the curriculum

Learning outcomes:

The outcomes of the PDM-studies are similar to the outcomes of the PDM-track

PDM- track consist of following sub-tracks:

Ethics

Interaction and communication skills in medicine

PDM-track includes also tutoring

Student grows into the role of medical doctor, and after graduation is able to form medical opinions and converse on the ethical issues and act according to ethical principles of medical profession. Student gains the ability to communicate with patients in a professional manner, take the medical history successfully, diagnose patients and make a realistic plan for treatment, and encourage his/her patients to making healthy choices in their everyday life. Student is fully aware of the importance of patient confidentiality. Student is capable of working as a team member in interprofessional team, and also taking leadership within the interprofessional team when needed.

Student knows the natural course of human life span and is able to describe the concepts of health, illness and patient safety. Student recognizes not only his/her own values, but also the values of his/her patients and the health sector. Student becomes aware of his/her own motivation and limitations and their influence to his/her every day work with patients.

Contents:

PDM- track consist of following sub-tracks:

Ethics

Interaction and communication skills in medicine

PDM-track includes also tutoring. There is also PDM- teaching integrated in the teaching of various substances and tracks.

Mode of delivery:

Course unit is delivered as face-to-face teaching

Learning activities and teaching methods:

1.yr

Lectures (6h): Ethics 1 (Pekka Louhiala)

Ethics 2 (Veikko Launis)

Ethics 3 (Minna Soini)

Group discussions, Written essay (C2) and self-study

2.-6-yrs Programme will be informed later

4.yr(1 ECTS): Seminar of ethics

5.yr (1 ECTS): Lectures on ethics

C1-12 the implementation of methods of the Communication and interaction track vary as it is mainly integrated to other courses and is part of teacher tutoring and learning log book working.

Target group:

Graduate students of medicine

Prerequisites and co-requisites:

No

Recommended optional programme components:

PDM- studies are part of the studies belonging to the Professional development in medicine (PDM)-track.

Other studies that belong to the LAK- **string/track:**

1.yr : Introduction to medical studies

Basic life support

6.yr : Leadership in health care

During 1.-6.yrs also:

Tutoring,

Self evaluation and peer evaluation

Learning diary

Recommended or required reading:

Ethics:

Louhiala Pekka, Launis Veikko: Parantamisen ja hoitamisen etiikka. Edita Publishing. Helsinki 2009

Nurmi JE ym. 2006; Ihmisen psykososiaalinen kehitys, Helsinki WSOY

Assessment methods and criteria:

Participation in lectures, tutoring and seminars, completing the reflection tasks and learning diary. OSCE exam in C10

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

Grading:

The course unit utilizes verbal grading scale "pass/fail"

Person responsible:

Teija Parpala and Essi Varkki

sub-tracks have their own persons responsible:

Ethics: Jyrki Mäkelä

Communication and interaction: Päivi Lindholm

Working life cooperation:

Communication and interaction track is integrated to every work placement during different courses

Other information:

-

041003Y-03: Professional Development in Medicine Studies 3, 1 op

Voimassaolo: 01.08.2011 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opintokohteen kielet: Finnish

ECTS Credits:

1 ECTS

Timing:

3. years

Learning outcomes:

The student is able to analyze the doctor's practice as a situation from an interactional perspective and is conscious and can recognize interactional factors that relate to doctor's practice. The student is able to observe their own interaction as well as that of others in diverse situations. The student is able to reflect on the strengths of their interactional skills as well as areas in need of development.

Contents:

1) Lectures:

- On the significance of interaction in doctor's practice and patient-doctor relationship
- How can interactional skills be developed

2) Group work:

- Reflection in small groups on different situations in doctor's practice and written summaries of the conversations that took place
- One group produces material for the seminar

3) Individual exercises:

- Written analysis of one doctor's practice situation
- Keeping a learning diary for eight weeks

4) Seminar and final lecture:

- The seminar includes reflection on interactional skills as part of professional skills in medicine supported by video and other material

Summary of students' group and individual exercises during the final lecture of the course.

Mode of delivery:

Face-to-face teaching, group and individual work

Learning activities and teaching methods:

Lectures and seminar, group work, individual exercises

Target group:

Medical students.

Prerequisites and co-requisites:

1st year lecture on the basics of interaction and the interaction and communication track as part of the professional development in medicine track (2x45mins.)

Recommended optional programme components:

Descriptions of doctor's practice situations produced during the course are used in teaching in Public health.

Recommended or required reading:

Lecture and other material in Optima

Assessment methods and criteria:

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

Grading:

Pass/fail

Person responsible:

Päivi Lindholm

080427A-02: Public Health, 1 op

Voimassaolo: 01.08.2014 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Markku Timonen

Opintokohteen kielet: Finnish

ECTS Credits:

1 ECTS credits

Language of instruction:

Finnish

Timing:

The fourth year (C8), spring semester

Learning outcomes:

Upon completion of the course, the student:

- becomes aware of his/her own automatic and unknown reactions in her/his communication with patients
- knows how to use family oriented methods and gains competence in interprofessional working methods in primary care settings
- gains confidence in discussing about difficult issues with patients and their family members

Contents:

Communication training: lectures and small group sessions.

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

Lecture and small group sessions.

Target group:

The students from medicine

Prerequisites and co-requisites:

Interviewing and examining patients, C4

Patient-centered communication, C6

Recommended or required reading:

Potilas, perhe ja perusterveydenhuolto. Pekka Larivaara, Sirpa Lindroos, Taina Heikkilä (ed.) Kustannus Oy Duodecim 2009

Yleislääketiede, Kumpusalo E, Ahto M, Eskola K, Keinänen-Kiukaanniemi, S, Kosunen E, Kunnamo I, Lohi J (toim) Kustannus Oy Duodecim 2005, soveltuvilta osin;

Mustajoki, P., Saha, H. & Sane, T. (ed.): Potilaan tutkiminen. Kustannus Oy Duodecim, Saarijärvi 2009

Assessment methods and criteria:

Attending to all compulsory teaching: lecture, small-group sessions.

Grading:

Pass/fail

Person responsible:

Professor of general practice Markku Timonen

080427A-03: Public Health, 5 op

Voimassaolo: 01.08.2015 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Markku Timonen

Opintokohteen kielet: Finnish**ECTS Credits:**

5,0 ECTS credits/ 134 hours of work

Language of instruction:

Finnish

Timing:

C 10, the course unit is held in the spring semester.

Learning outcomes:

The student is familiar with the main examination and management strategies used in general practice, and understands the role which the probability of disease has for the selection of a management strategy.

The student gains experience in: management of a range of clinical problems which present to primary care; coordination and organization of treatment; and working using a patient-centred approach.

The student gains insight into: disease prevention and health promotion in paediatric, antenatal-care and school-based health care settings; main examination and treatment strategies in general practice; issuing expert statements in matters of social security system, rehabilitation and employment; time management and coordination of clinical work in primary care; multidisciplinary team work.

Contents:

Theoretical learning of the "key principles" of general practice. Practical learning in different areas of general practice: scheduled and acute appointment at the health centre; antenatal- and maternity-, paediatric-, family-planning- and school services, inpatient care on the health care centre wards, and inpatient care on long-term wards, community care.

Mode of delivery:

Blended teaching.

Learning activities and teaching methods:

Lectures 7,5 h including independent work 7,5 h.

Group work for four days (32 hours). Critical appraisal of evidence; independent work 7 h.

Two-week practical training in health care centres (74 hours).

Target group:

Medical students

Prerequisites and co-requisites:

All earlier studies in the curriculum of basic medical education.

Recommended optional programme components:

No alternative course units

Recommended or required reading:

Recommended literature: Kumpusalo E, Ahto M, Keinänen-Kiukaanniemi S, Kosunen E, Kunnamo I, Lohi J (toim.): Yleislääketiede, Kustannus Oy Duodecim, Karisto Oy Hämeenlinna 2005.

Assessment methods and criteria:

The assessment of the course unit is based on the learning outcomes of the course unit

Attending to all compulsory teaching

The assessment of the learning outcomes: The final examination during the sixth year of medical education.

Grading:

The course unit utilizes verbal grading scale "pass/ fail "

The final examination during the sixth year of medical education utilizes a numerical grading scale 1-5

Person responsible:

Markku Timonen, professor of general practice

Working life cooperation:

Yes, during the two-week practical training in health centres

080427A-01: Public Health 1, 1 op

Voimassaolo: 01.08.2013 -

Opiskelumuoto: Intermediate Studies

Laji: Partial credit

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Markku Timonen

Opintokohteen kielet: Finnish**ECTS Credits:**

1 ECTS credits

Language of instruction:

Finnish

Timing:

The third year (C6), spring semester

Learning outcomes:

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

- meet patient discreetly and appropriately
- perform independently the patient-centered communication;
- describe the importance of reflection in the communication

Contents:

Communication training: lecture (1,5 hours), small group teaching.

Mode of delivery:

Face-to-face teaching

Learning activities and teaching methods:

Lecture and small group teaching.

Target group:

The students from medicine

Prerequisites and co-requisites:

Interviewing and examining patients, C4

Recommended or required reading:

Yleislääketiede, Kumpusalo E, Ahto M, Eskola K, Keinänen-Kiukaanniemi, S, Kosunen E, Kunnamo I, Lohi J(toim) Kustannus Oy Duodecim 2005, soveltuvilta osin;

Mustajoki, P., Saha, H. & Sane, T. (ed.): Potilaan tutkiminen. Kustannus Oy Duodecim, Saarijärvi 2009.

Assessment methods and criteria:

Attending to all compulsory teaching: lecture, small-group work.

Grading:

Pass/fail

Person responsible:

Professor of general practice Markku Timonen

Working life cooperation:

No

Other information:

- This course is closely connected to Communication-track

080427A-04: Public Health 4, 8 - 9 op**Voimassaolo:** 01.01.2016 -**Opiskelumuoto:** Intermediate Studies**Laji:** Partial credit**Vastuuyksikkö:** Medicine**Arvostelu:** 1 - 5, pass, fail**Opettajat:** Markku Timonen**Opintokohteen kielet:** Finnish**ECTS Credits:**

9,0 ECTS credits

Language of instruction:

Finnish

Timing:

The sixth year (CXI-XII), autumn and spring semester

Learning outcomes:

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

- describe factors affecting morbidity on individual and population level
- diagnose and treat common diseases
- uncover patient's experience of her/his disease and find out patient's own relation to her/his illness
- act as an expert in preventive medicine in primary care
- apply health promoting and disease preventing methods on individual, family and population level
- function as a member in interprofessional team and benefit from the expertise of other team members
- manage time in patient practice

Contents:

Supervision of health professionals, insurance in medicine, *military medicine?*, health legislation, child welfare policlinic, medical certificates, patient with multiple issues in primary health care, patient care in primary health care in light of medical guidelines, critical evaluation and practical use of research in primary health care. Health centre practice

Mode of delivery:

Face-to-face teaching. One week practical training in health centers.

Learning activities and teaching methods:

Lectures, seminars and small group teaching. One week practice period in health centers

Target group:

The students from medicine

Recommended or required reading:

Yleislääketiede, Kumpusalo E, Ahto M, Eskola K, Keinänen-Kiukaanniemi, S, Kosunen E, Kunnamo I, Lohi J (toim) Kustannus Oy Duodecim 2005; Laki potilaan asemasta ja oikeuksista 17.8.1992/785; Laki terveydenhuollon ammattihenkilöistä 28.6.1994/559; Sosiaali- ja terveysministeriön asetus potilasasiakirjojen laatimisesta sekä niiden ja muun hoitoon liittyvän materiaalin säilyttämisestä. 99/2001; SosTMA lääkkeen määräämisestä 726/2003; L sähköisestä lääkemääräyksestä 2.2.2007/61; a SosTMA sähköisestä lääkemääräyksestä 25.6.2008/485.

Assessment methods and criteria:

Written examinations. participation in seminars and small group teaching and practical period in health centers.

Grading:

The final examination has four questions, the maximum is 5 points each. To pass the exam student has to get a minimum of 10/20 points. Students can participate on exam once he/she has participated in all compulsory teaching in general medicine. The grading is 1-5.

Person responsible:

Professor of general practice Markku Timonen

Working life cooperation:

- Yes, the course includes one week practical period in the health center

080812A: Radiology II, 3 op

Voimassaolo: 01.08.2010 -

Opiskelumuoto: Intermediate Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Tervonen, Osmo Antti

Opintokohteen kielet: Finnish

ECTS Credits:

2 ECTS credits / 53 hours of work

Language of instruction:

Tuition shall be arranged in Finnish.

Timing:

The course unit is held in the autumn semester of 6th year.

Learning outcomes:

Radiology II

Upon completion of this second curricular unit of radiology, the student should be able to take the principle of justification in account while ordering radiologic studies. Student should master the indications and methods for selected investigations in radiology within general practices clinical context. After the study unit, student should master also the basics of interpretation of radiographs and recognizes the typical findings.

Contents:

Radiology II

Musculoskeletal radiology, thoracic radiology, abdominal radiology, neuroradiology, urogenital radiology, interventional radiology and pediatric radiology

Mode of delivery:

The mode of delivery for the course unit is face-to-face teaching.

Learning activities and teaching methods:

The implementation methods of the course vary.

Lectures consist of 18 hours. There will be 10 hours of guided small group teaching events (image interpretation and Ultrasound anatomy) c. 25 hours of studying privately or in a group (ultrasound facility available for self-learning).

Target group:

Target groups are 6th year medical students (MD).

Prerequisites and co-requisites:

Prerequisite for participation to the course unit is the completion of Radiology I course.

Recommended optional programme components:

There are no alternative courses.

Recommended or required reading:

Books: Either, Soimakallio (Editor): Radiologia [in Finnish] or Mettler, FA (Editor): Essentials of Radiology

100-tärkeintä rtg-kuvaa (National teaching image base): Distributed through university domain.

Assessment methods and criteria:

This course unit utilizes exam assessment.

Grading:

The course unit utilizes a numerical grading scale 1-5. In the numerical scale zero stands for a fail. The grade will not be given until all the obligatory teaching courses are completed.

Person responsible:

Osmo Tervonen, Professor
Jaakko Niinimäki, Professor

Working life cooperation:

No.

040019S: Thesis Data-analysis, 2 op

Opiskelumuoto: Advanced Studies

Laji: Course

Vastuuyksikkö: Medicine

Arvostelu: 1 - 5, pass, fail

Opettajat: Pentti Nieminen

Opintokohteen kielet: Finnish

ECTS Credits:

2 ECTS

Learning outcomes:

The student will be able to plan study designs and statistical computing related to the research question of his/her thesis, obtain and analyze data with basic statistical methods, use basic statistical significance tests and inference methods, and report the findings.

Contents:

Aims and phases of statistical research, planning statistical research, obtaining data and suitable methods to solve the research questions of the thesis. Use of statistical software.

Mode of delivery:

Blended teaching

Learning activities and teaching methods:

Face-to-face meetings with the teacher, small-group lessons, independent work, assignments

Target group:

All students working with their thesis

Prerequisites and co-requisites:

None

Recommended optional programme components:

040012Y Knowledge and Research

Recommended or required reading:

Material in Optima.

Uhari M ja Nieminen P: Epidemiologia ja biostatistiikka. Second Edition. Duodecim, 2012.

Assessment methods and criteria:

Regular and active participation in the small group lessons and completion of practical projects.

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

Grading:

Pass/fail

Person responsible:

Senior lecturer Pentti Nieminen