Bachelor Medicine

Find another programme

First year courses

Bachelor Medicine Year 1

Fac. Health, Medicine and Life Sciences

Groei en Ontwikkeling I

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN1101
Period 1
1 Sep 2021
22 Oct 2021
Print course description
ECTS credits:
7.0
Instruction language:
Dutch
Coordinator:

- J.P.J.M. Hikspoors

Fac. Health, Medicine and Life Sciences

Circulatie en Ademhaling I

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN1102
Period 2
25 Oct 2021
17 Dec 2021
Print course description
ECTS credits:
7.0
Instruction language:
Dutch
Coordinator:

Bachelor Medicine

- W.M. Blankesteijn

Fac. Health, Medicine and Life Sciences

Regulatie en Integratie

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN1103
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
Dutch
Coordinator:

- J.L.V. Broers

Fac. Health, Medicine and Life Sciences

Denken en Doen I

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN1104
Period 4
1 Feb 2022
1 Apr 2022
Print course description
ECTS credits:
7.0
Instruction language:
Dutch
Coordinator:

- H.H.C.M. Savelberg

Fac. Health, Medicine and Life Sciences

Verteer en Verweer I

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN1105
Period 5
4 Apr 2022
3 Jun 2022
Print course description
ECTS credits:
7.0
Instruction language:
Dutch
Coordinator:

- L.J. Schurgers

Fac. Health, Medicine and Life Sciences

Diabetes, Obesitas en Lifestyle

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN1106
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
4.0
Instruction language:
Dutch
Coordinator:

- B. Havekes

Fac. Health, Medicine and Life Sciences

Programma Klinische Vaardigheden Jaar 1

Bachelor Medicine

Full course description

This study programme is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN1008
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
6.0
Instruction language:
Dutch
Coordinators:

- M.J.B.L. Franssen
- F.J. Jongen - Hermus

Fac. Health, Medicine and Life Sciences

Voortgangstentamen Jaar 1

GEN1007
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
8.0
Instruction language:
Dutch
Coordinator:

- B. Schutte

Fac. Health, Medicine and Life Sciences

CORE Jaar 1

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN1013
Year
30 Aug 2021
30 Aug 2022
Print course description

Bachelor Medicine

ECTS credits:
2.0
Instruction language:
Dutch
Coordinator:

- I.M.E. Caubergh - Sprenger

Fac. Health, Medicine and Life Sciences

Beeldvormende Technieken

Full course description

This study programme is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website.

GEN1011
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
1.0
Instruction language:
Dutch
Coordinator:

- W.J.P. Henneman

Fac. Health, Medicine and Life Sciences

Portfoliotentamen Jaar 1

Full course description

This study programme is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN1009
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
6.0
Instruction language:
Dutch
Coordinator:

Bachelor Medicine

- M.M. Verheggen

Fac. Health, Medicine and Life Sciences

Farmacotherapeutische Vaardigheden Jaar 1

Full course description

This study programme is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website.

GEN1012
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
1.0
Instruction language:
Dutch
Coordinator:

- B.J.A. Janssen

Fac. Health, Medicine and Life Sciences

Schrijflijn Jaar 1

GEN1107
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
Dutch
Coordinator:

- R.A. de Bie

Fac. Health, Medicine and Life Sciences

Reflectie Portfolio / Professioneel Gedrag Jaar 1

GEN1108
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:

Bachelor Medicine

0.0
Instruction language:
Dutch
Coordinator:

- M.M. Verheggen

Bachelor International Track in Medicine (ITM) Year 1

Fac. Health, Medicine and Life Sciences

Growth and Development I

Full course description

This theme covers normal and abnormal growth, the development and breakdown of cells, tissues and individuals. It also involves issues such as pregnancy, the growth and development of children, puberty and ageing. There is a transfer of this theme to several subthemes of the clusters in year 3, including: - Circulation/lungs: e.g. pulmonary nodules as expression of disturbed cell growth, cardiomyopathy - Psychomedical: Alzheimer's disease, the cognitive development in children, puberty issues, Down syndrome - Abdomen: gynaecological issues - Locomotor system: bone and joint disorders (osteoporosis) Subjects: - Structure of the cell (prokaryote, cell organelles, membrane) - DNA/RNA/protein synthesis/gene regulation - Cell division, cell cycle, regulation, cell death - Cell metabolism and communication - Cell growth and differentiation - Hereditary principles - Structure of selected tissues and organs (different cell types, histology) - Embryonic and foetal development

Course objectives

Knowledge and insight By the end of the block, the student should have a broad understanding of: the background to problem-based learning. By the end of the block, the student should have conceptual knowledge of: the structure of a cell, ligand/receptor interactions, the mechanism and purpose of signal transduction, the structure of the gene, gene regulation, transcription, translation, post-translational modification, regulation of cellular growth and differentiation, the role of growth, differentiation and cell death in the construction of organ systems and the response to injury, embryonic growth and development, as far as the creation of the three germ layers, growth and growth regulation of the individual, cognitive, psychosocial and emotional development, homeostasis and disease as a disruption of homeostasis, By the end of the block, the student should have a broad understanding of: the determinants and epidemiology of disease and health, the organisation of health care in the Netherlands, the competencies of medical doctors (CANMEDs), the objectives of the Consultations and Reflection (CORE) programme. Skills By the end of the block, the student should have the basic skills for the following themes: watching and feeling, hearing and listening, microscopy. Scientific aspects By the end of the block, the student should have conceptual knowledge of: the meaning of measurement levels, measures of central values and dispersions, and of distributions and plots, the meaning of health: levels and the associated measurement methods, scientific measurements in a social context and what biological and social/cultural diversity mean in this context..

ITM1101

Bachelor Medicine

Period 1
1 Sep 2021
22 Oct 2021
Print course description
ECTS credits:
7.0
Instruction language:
English
Coordinator:

- H.M.H. Spronk

Teaching methods:
Assignment(s), Work in subgroups, Lecture(s), PBL, Presentation(s), Working visit(s), Skills
Assessment methods:
Assignment, Attendance, Computer test, Final paper, Presentation
Fac. Health, Medicine and Life Sciences

Circulation and Breathing I

Full course description

The normal working and disturbances of the heart, lungs and circulation are illustrated by means of normal situations and several disorders. In addition, the concept of homeostasis is introduced in year 1 and used to discuss the clinical examination of the heart, lungs and blood pressure as well as resuscitation skills. There is a transfer of this theme to the Circulation & Lungs cluster in year 3.

Subjects:

- Heart, lungs and circulation: anatomy and physiology
- Overview of the blood circulation (greater/lesser circulation, coronary arteries)
- Regulation of blood pressure
- Regulation of respiration
- Blood: composition, production and breakdown of blood cells, regulation
- Blood: oxygen transport
- Blood: acid-base balance
- Blood: haemostasis and fibrinolysis
- Embryology of the heart and lungs
- Transition fetal to adult circulation

Course objectives

Knowledge and insight • Physiology and physical diagnostic examination of the thorax (cardiovascular and upper respiratory tract). • Macroscopic and microscopic anatomical structure and function structure of the thorax: airways, lungs and pleurae, heart and blood vessels. • Foetal heart and lung development. • Principles of the mechanisms underlying the circulation and respiration: breathing exercise, alveolar ventilation, pulmonary circulation, gas exchange, gas transport, cellular respiration and the associated regulatory mechanisms, circulation, physiology of the heart, physiology of large vessels, compliance, pulse pressure, regulation of cardiac output, Frank Starling mechanism. • Regulation of various aspects of breathing and circulation and the influence of rest and effort on this regulation. Skills and practicals • Providing adequate care for

patients in cardiac arrest (Basic Life Support + AED). • Physical diagnostic examination of the thorax, heart and lungs. • Research of peripheral circulation and determination of blood pressure. • Introduction of additional diagnostic tests. • Practical hemodynamic using an experimental design. • Computer lab cardio lab (influence of drugs on cardiac function). • Practical coagulation. • Virtual microscopy of the thorax (lungs, heart and blood vessels). • Practical Spirometry: Writing a report on causes of variation and interpretation, including: 1) graphic variation in spirometric measurements, 2) and particularly the influence of race and gender in this (international).

ITM1102
Period 2
25 Oct 2021
17 Dec 2021
Print course description
ECTS credits:
7.0
Instruction language:
English
Coordinator:

- M. Filliers

Teaching methods:
Assignment(s), Lecture(s), PBL, Skills, Training(s)
Assessment methods:
Assignment, Computertest, Participation, Written exam
Keywords:
Key disciplines: Anatomy; Cardiology; Pharmacology; Physiology; Paediatrics; Respiratory Medicine
Fac. Health, Medicine and Life Sciences

Regulation and Integration

Full course description

This theme elaborates the concept of homeostasis and the functioning of regulatory mechanisms, elaborating on the knowledge the students acquired in the first two blocks. Also, the concepts of disease and health are introduced.
The following topics can be used as examples:

- Dehydration and hypovolaemic shock (integration of blood pressure regulation and kidney function)
- Hormonal regulation and feedback system (e.g. in cases of hypothyroidism and hyperthyroidism)
- “Stress” (including stress response, HPA axis, feedback)
- “Out of balance”: effect of disease on psychosocial functioning and vice versa (e.g. in cases of fatigue in hypothyroidism). This can also include the concepts of “sickness”” versus “illness”, and other concepts of social medicine.

Course objectives

Knowledge and insight: The focus in this block is on a number of important pathophysiological basic mechanisms.

Bachelor Medicine

The following themes are dealt with (divided over seven cases (topics)):

- Basic principles of physiology: homeostasis
- Basic principles of control systems: the sensor-integrator-effector principle
- Causes and mechanisms of variation in control systems (positive or negative feedback)
- Biorhythms, including circadian clock rhythms and other important time-related variations
- Hypothalamus/pituitary (adenohypophysis and neurohypophysis)
- Adrenal cortex functions and adrenal medulla functions
- Preservation of cellular volume, osmolality
- Antidiuretic hormone and the renin-angiotensin system
- Kidney function: emphasizing on the glomerulus
- Kidney function: emphasizing on the tubule
- Measuring kidney function: knowledge of the concept of clearance
- Transcapillary fluid management (Starling's law)
- The body's responses to dehydration and hypovolaemia
- Mechanisms of oedema
- • Multiple organ failure and the downward spiral to death

Recommended reading

Key resources are physiology handbooks, such as: (Hall, J. (2016). Guyton and hall textbook of medical physiology (13th edition. ed., Guyton physiology). Philadelphia, PA: Elsevier.; Boron, W., & Boulpaep, E. (Eds.). (2017). Medical physiology (Third edition). Philadelphia, PA: Elsevier. Additional literature sources are provided per case

ITM1103
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- B.J.A. Janssen

Teaching methods:
Lecture(s), Work in subgroups, PBL, Presentations, Skills, Training(s)
Assessment methods:
Attendance, Computer test, Participation
Keywords:
Endocrinology, HPA-axis, kidney, RAA system, water balance, biological clock, cell death, edema, bladder, micturition
Fac. Health, Medicine and Life Sciences

Thinking and Doing I

Full course description

As the name implies is this block a constitution of two major components: Thinking (‘Brain’) and Doing (‘Movement’). The Thinking part includes the neuroanatomy and vascularisation of the brain and its sensory pathways. Sensory perception (hearing and vision) will be used to explain the afferent pathway systems. The neurophysiology of neuron-neuron and neuron-muscle signalling will also be discussed. Focus on the motion of the lower extremities (hip, knee and ankle). Anatomy and basic functioning of these extremities and their control by the central and peripheral nervous systems will be discussed. The entire process of the movement will be discussed, from the initiation of the movement, via the motor pathways through to reflexes and motor problems. Imbedded in the block is the integration of both themes. It is the failure of proper function of Brain and/or Movement that affects the human characteristics most. This is exemplified by the cases which study pain sensation, propriocepsis loss and the ‘patient with neurological damage’. In short, the block will be aimed mainly at three primary areas, which will be covered either separately or together; we nevertheless hope that the students will be able to integrate the different areas themselves as we go along (knowledge in one of these subject areas simplifies knowledge in one of the other areas).

Course objectives

Knowledge and insight • Neuroanatomy and vascularisation of the central nervous system at the macroscopic and microscopic levels • Neurotransmission: stimulus generation, propagation and transfer; neurotransmitters and neurotransmitter systems • Neuroanatomy and the function of sensory pathway systems (gnostic and vital, including propriocepsis) • Anatomy and physiology of the ear and the auditory system • Anatomy of the eye and the visual system • Language acquisition • Planning and initiation of motion • Neuroanatomy and function of motor pathway systems • Structure and function of the lower extremities, bones, muscles and joints (hip, knee and ankle) • Basic components of the motor system • Reflexes, coordination, proprioception. Integration knowledge and practice via: • Neurophysiology of pain, perception of pain, pain behaviour • Posture regulation and reflexes • Pathophysiology: relationship between the functioning of parts of the brain, linked to behaviour or failure of functions, particularly learning and memory and motor functions Skills • Function study of the cranial nerves, sensibility, sight and hearing • Study into the movements of the hip, knee and ankle

ITM1104
Period 4
1 Feb 2022
1 Apr 2022
Print course description
ECTS credits:
7.0
Instruction language:
English
Teaching methods:
Lecture(s), PBL, Skills, Training(s), Assignment(s)
Assessment methods:
Attendance, Portfolio, Presentation, Computer test
Keywords:
Neuroanatomy, spinal cord, sensory and motor path systems, senses (hearing, vision and propriocepsis), hip and knee and ankle joints, higher cerebral functions (consciousness), neurotransmission, brain vascularisation, reflexes

Digestion and Defence I

Full course description

In this block, the topics are: 'digestive system', 'microbiology' and 'immunology'. The main focus of this block are the digestion process and the involving the mouth, esophagus, stomach, small and large bowel, as well as the liver, gall bladder and pancreas. The main processes involved include regulation of food intake, digestion and absorption of nutrients, which require cooperation between all these organs. Problems with the functioning of the digestive tract can result in symptoms such as reflux, abdominal pain and diarrhea. Our digestive tract is continuously exposed to a myriad of microbes, either from our own microbiota or potential pathogens. Therefore, the second topic of this block concerns microbiology to get acquainted with mechanisms of bacteria, virusses and parasites. An adequate immune system is required for the defence against infectious pathogens. How the immune system is constituted and how it functions is the third block topic. The focus of this block will be mainly on normal physiology and as such it is the basis for year 2 where the focus will be on the pathophysiology. In addition attention will be paid to internationalization in the context of health care world-wide and on scientific aspects such as statistics, epidemiology, medical history and the diversity of professional medical literature.

Course objectives

- Anatomy and histology of the oral cavity, teeth, tongue, salivary glands, pharynx, esophagus, stomach, small and large intestine, liver, gall bladder and pancreas.
- Hormonal and neural regulation of food intake and digestion, including the cephalic, gastric and intestinal phase.
- Composition of food, digestion of proteins, carbohydrates and fat and the absorption of the digested nutrients, minerals, vitamins, electrolytes and water.
- Motility of the digestive tract, such as gastric emptying, peristalsis of the small and large intestine, and mechanisms of diarrhea and constipation.
- At the organ level, the following physiological functions will be discussed: swallowing, secretion and composition of saliva, secretion of gastric juice and protection against gastric acid, endocrine and exocrine function of the pancreas, function of bile and the liver functions such as bile production, biotransformation and the metabolism of carbohydrates, proteins and fats.
- Knowledge of structure, classification and replication of bacteria and viruses, mechanisms of and resistance against some antibiotics, composition and function of the commensal microbiota, and examples of gastrointestinal pathogens causing diarrhea.
- Classes and functions of leukocytes, the inflammatory process, induction of fever.
- The innate and adaptive immune system and the cellular and humoral immune response in the context of infection and vaccination.
- Performing and interpreting diagnostic skills of the mouth, throat, neck, of the abdomen and lab skills on faces, blood and injection; knowledge of imaging techniques.
- Scientific skills, e.g. application of relevant statistical tests, using diverse professional medical information and knowledge of the history of infectious diseases and its treatment.
- Orientation on health care from a international, world-wide view.

Bachelor Medicine

Recommended reading

- Digestive system (authors: Smith & Morton)
- Medical microbilogy (authors: Murray; Rhosental. Pfaller
- Basic mmunology (authors: Abbas; Lichtman; Pillai)

ITM1105
Period 5
4 Apr 2022
3 Jun 2022
Print course description
ECTS credits:
7.0
Instruction language:
English
Coordinator:

- P.F.G. Wolffs

Teaching methods:
Lecture(s), Skills, Training(s), PBL
Assessment methods:
Computertest, Written exam
Keywords:
- Gastro-intestinal system - Microbiology - Immunology
Fac. Health, Medicine and Life Sciences

Diabetes, Obesity and Lifestyle

Full course description

The incidence of diabetes and obesity (diabesity) shows a rapid, worldwide increase. This block aims to acquire knowledge of all aspects of diabetes and obesity in a “cell to society approach”. Pathophysiological mechanisms, the effect of diabesity on tissues and organs as well as the interaction between nutrition, genes, and inflammation will be discussed. In addition, the block pays ample attention to the risk factors of developing diabesity and the options to influence the lifestyle of people suffering from diabesity. Finally, the optimal treatment of people with diabesity will be covered.

Course objectives

To gain insight into the energy balance:

- What is lifestyle? Which lifestyle determinants are distinguished?
- Principles of lifestyle interventions, diabetes-specific interventions
- Behaviour and interaction with other causes of unhealthiness

To gain insight into the lifestyle determinants of obesity and diabetes and possible lifestyle interventions:

- Underlying principles of treatment in diabetes

Bachelor Medicine

- Organisation of care in diabetes
- Microvascular and macrovascular complications

To acquire knowledge about the consequences and treatments of type 2 diabetes mellitus:

- Glucose level regulation, including the action of insulin and insulin resistance
- Lipid metabolism and disturbed fat metabolism in type 2 diabetes mellitus patients
- Interaction between obesity, inflammation, hepatic steatosis/steatohepatitis, and type 2 diabetes mellitus

To acquire knowledge about the pathophysiology of obesity and type 2 diabetes mellitus:

- Relationship between energy intake and expenditure
- Environmental factors involved

ITM1106
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- S.S.M. Rensen

Teaching methods:
Lecture(s), PBL, Skills, Training(s), Assignment(s), Work in subgroups, Patient contact, Paper(s)
Assessment methods:
Computertest
Keywords:
Key disciplines: Internal Medicine, Pathology, Molecular Genetics, psychology, Medical Sociology, Health Education
Fac. Health, Medicine and Life Sciences

Programme Clinical Skills Year 1

Full course description

The Skillslab provides training sessions for medical students to learn the skills they need when working with patients. Approximately half of the training sessions concern physical examination skills, such as taking blood pressure or examining a knee, the other half are procedural (therapeutic) and laboratory skills, such as urinalysis.

Skillslab training sessions are organised for each block and are related to the block theme. The students register themselves for the training sessions or are allocated to a particular training. Each training session accommodates a group of ten students and is supervised by a skills teacher/doctor or sometimes (depending on the skill) an anatomy teacher or clinical expert.

The training sessions each last 1.5 hours, during which the students learn a particular skill. Each

session starts with a short introduction after which the skill is demonstrated and/or the students practise the skill in pairs: one student examines the other. The teacher checks whether the skill is performed correctly and gives the students feedback.

Some skills are practised on models and manikins if the real situation cannot be simulated (resuscitation, for instance) or if practising on each other is undesirable for other reasons (gynaecological examination, for example).

The Skillslab has implemented programmatic assessment. Skills assessment consists of frequent feedback on the students' skills and monitoring individual progress. At the end of the bachelor's programme, the students take a skills test in which they are expected to show that their skills levels are sufficient to be admitted to the master's programme.

Recommended reading

Skills in Medicine (SIM) The skills training sessions at the Skillslab often refer to the "Skills in Medicine" series. This series of booklets describes the skills the students need to learn and provides useful illustrations of the skills. The booklets and video clips are also available online for students and teachers at the UM campus (and via a VPN client outside of the campus) at: http://www.vig-mu.nl. The Skillslab programme also often refers to the book Bates' Guide to Physical Examination and History Taking. Fysische diagnostiek available on line and Praktische Vaardigheden becomes available online (both at this moment in Dutch).

ITM1008
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
6.0
Instruction language:
English
Coordinator:

- F.J. Jongen - Hermus

Teaching methods:
Assignment(s), Patient contact, Skills, Training(s)
Assessment methods:
Assignment, Observation, Oral exam, Participation, Portfolio
Keywords:
Clinical Skills, Skills, Skills training, Skillslab
Fac. Health, Medicine and Life Sciences

CORE Year 1

Full course description

Students learn to conduct encounters with patients who present with cases relevant for the cases in their theoretical first-year curriculum. Additionally they reflect on aspects of diversity between individual patients they witness in these cases. Simulated patients present the cases while students

integrate their knowledge, preferred approach and attitude in a consultations that runs as smoothly as possible. The simulated patients provide tailor-made feedback after the consultation. Additionally the consultations are recorded on video. The students watch the recordings and two weeks later a feedback session takes place with a teacher. In this session they address the medical content, their 'approach' and possible ethical issues relevant for the case.

Course objectives

Intended learning objectives of the first-year CORE-programme:

- Being able to conduct a simple consultation, with emphasis on clarification of the patient's reason for the encounter
- Structuring the consultation into different phases

Recommended reading

-Silverman J, Kurtz S, Draper J. Skills for communicating with patients. 2nd edition. Oxford: Radcliffe. 2005.

ITM1013
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
2.0
Instruction language:
English
Coordinator:

- I.M.E. Caubergh - Sprenger

Teaching methods:
Work in subgroups, Training(s)
Assessment methods:
Attendance, Observation, Participation, Portfolio
Keywords:
communication skills, diagnostic skills
Fac. Health, Medicine and Life Sciences

Imaging Techniques

Full course description

The block-exceeding module 'imaging techniques' consists of 5 lectures and concludes with a written assignment. Within the lectures, the most commonly used imaging techniques in radiology and nuclear medicine are discussed, such as X-ray examination, CT, ultrasound, MRI, as well as endoscopy (in collaboration with the gastro-enterology department). For each of the techniques, the basic underlying physics, as well as clinical applications are discussed. Using clinical examples, advantages, disadvantages and specific applications for example in a specific organ or organsystem

are illustrated. Furthermore, an introduction in basic clinical epidemiological principles such as sensitivity and specificity is given, because this closely relates to the application of specific techniques for a specific disease or bodypart. the module is concluded with a written assignment. Each student gets one disease and two imaging techniques. By perforing a literature search, the student has to compare the two techniques as to the clinical epidemiological properties, as well as patient and community related advantages and / or disadvantages of the techniques.

Course objectives

Lectures

- Knowledge about the physics underlying the different imaging techniques
- Knowledge about the clinical application of the different imaging techniques
- Knowledge about the differences between techniques concerning: clinical epidimiological properties, potentially harmfull effects, costs and other patient and community related issues
- Introduction in the application of radiology and nuclear medicine within the diagnostic and therapeutic process

Assignment

- Learn to perform a literature search
- Learn to apply digital databases (PubMed)
- Critical appraisal of literature, and discussion of the literature
- Become familiar with the structured format of scientific writing

ITM1011
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
1.0
Instruction language:
English
Coordinator:

- W.J.P. Henneman

Teaching methods:
Lecture(s)
Assessment methods:
Assignment
Keywords:
Imaging techniques Radiology Nuclear medicine
Fac. Health, Medicine and Life Sciences

Pharmacotherapeutic Skills Year 1

Full course description

In the Netherlands, doctors can choose from over 1500 different generic medicines (and a multitude

of branded drugs) that are available on the market. A doctor makes use of approximately 50-150 medicines in his practice. Therefore it is important that a medical student needs to be trained how to select the most optimal medicine for the individual patient.

The department of Pharmacology & Toxicology coordinates the teaching activities on medication. In the bachelor phase students are trained to make rational pharmacotherapeutic choices, via a WHO approved 6-step method. These assignments will be made available via the e-learning program Pscribe (www.pscribe.eu) and help the student in building their personal formulary, a set of medicines with which the physician is very accustomed and can treat most of his patients.

In year 1 the assignments will be available for the following medical problems

1. Contraception
2. Astma / allergy
3. Pain
4. Gastric acid related problems
5. Diabetes

The top 100 of most prescribed medicines in the NL can be retrieved from www.gipdatabank.nl

Course objectives

1. rational prescribing of medicines via the 6-step method
2. writing of scientific information on medicines
3. actual writing of a prescription

ITM1012
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
1.0
Instruction language:
English
Coordinator:

- B.J.A. Janssen

Teaching methods:
Assignment(s)
Assessment methods:
Assignment
Fac. Health, Medicine and Life Sciences

Progress Test Examination Year 1

Full course description

Starting in the academic year 2017-2018 progress tests for the International Medical Program will take place online (compared to the previous written tests). The IPT differs from the iVTG (the Dutch

progress test) as it is shorter due to a technology used called computer-adaptive testing. As the test is taken by computer, students cannot take the test booklet home. Furthermore the IPT does not contain items related to Dutch laws, the Dutch code of ethics and the Dutch healthcare system and items have been added that are more suitable for international and internationally-oriented students. All references for the IPT test items are in the English language. The IPT has an IPT committee which takes care of the production, quality, analysis, and standards of the test, as well as the feedback to the students. The coordinator of the IPT has been appointed as examiner by the Board of Examiners. In addition to writing new and more internationally oriented test items, the IPT committee also checks items that are currently used for the test and rewrite them as needed. All items approved by the IPT committee are added to an item bank. The IPT committee consists of a chairperson (the coordinator, a psychometrics analysist in charge of standard setting and test analysis) and five members from the three cluster disciplines: core, clinical and behavioural modules. The international progress test (IPT) is an instrument to measure medical students' progress in knowledge during their studies and is therefore an assessment instrument in the competence domain of 'medical expert'. The progress exam consists of four progress tests per academic year.

Course objectives

The tests are compiled based on a blueprint indicating how many items from each sub-area should be included in the test. Sub-areas are created by crossing two item classifications (disciplines and categories). The test blueprint is similar to the iVTG blueprint (except for categories as described above) Each test contains 100 MCQ questions. There will be four of these tests per year and the combination regulations as described below (Progress Exam) apply across progress tests for judging the end result at the end of the year.

ITM1007
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
8.0
Instruction language:
English
Coordinator:

- B. Schutte

Assessment methods:
Computer test
Fac. Health, Medicine and Life Sciences

Portfolio Examination Year 1

Full course description

In the first year, the aim is for students to get used to the portfolio, make a good start on building their own collection of evidence and focus on experiences. The emphasis is on learning to recognise and analyse learning experiences. Towards the end of the year, the bridge to competency thinking is

built. Professional behaviour is an important point of attention from the start.

Every student has contact with the mentor at least five times in year 1:

- The first contact (block 1.1) takes place in the mentor group at the start of the academic year: the mentor and students get to know each other and the students are informed about the purpose and working method of the portfolio.
- The second contact (block 1.2) also takes place in the mentor group and the students learn how to recognize and analyse experiences by creating an experience card.
- The third contact (block 1.2) is individual. Mentor and student discuss the test results, the feedback and the first experience cards(s).
- The fourth contact (block 1.4) is again an individual conversation. The fourth contact (block 1.4) is again an individual conversation. In this conversation, the experience cards and corresponding analysis are discussed in combination with study results and evidence.
- The fifth contact (block 1.5) takes place in the mentor group and students start translating the analysis of their experience cards into competence cards. An overview of the porfolio programme of year 2 is given by the mentor.
- After the fifth contact, the mentor gives advice on the quality and progress of the portfolio including the professional behaviour development of the student, based on rubrics.

Course objectives

A portfolio is used that is based on and connected to the context of their study phase. This is an electronic portfolio in EPASS, which is combined with a mentoring system. In the bachelor's phase, it was decided to guide students in their development as medical professionals from the start of their studies,

A portfolio in combination with a mentoring system is an instrument that can help the bachelor's student:

- to gain and maintain insight into the development of knowledge and skills (their own "growth curve") and to make timely adjustments where necessary;
- to learn in practice from experience and feedback and organise their own learning process;
- to identify problems in and around the study at an early stage so that appropriate help can be called in and/or study delays can be prevented; to gradually learning to reflect on development from the perspective of competences, in order to facilitate the transition to the master phase and the master portfolio;

ITM1009
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
6.0
Instruction language:
English
Coordinator:

- M.I. Kruithof

Teaching methods:

Bachelor Medicine

Assignment(s), Lecture(s), Paper(s), Training(s)
Assessment methods:
Assignment, Attendance, Participation, Portfolio
Fac. Health, Medicine and Life Sciences

Academic Writing Year 1

ITM1107
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
English
Coordinator:

- R.A. de Bie

Fac. Health, Medicine and Life Sciences

Reflection Portfolio / Professional Behaviour Year 1

ITM1108
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
English
Coordinator:

- M.M. Verheggen

Second year courses

Bachelor Medicine Year 2

Fac. Health, Medicine and Life Sciences

Circulatie en Ademhaling II

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

Bachelor Medicine

GEN2101
Period 1
1 Sep 2021
22 Oct 2021
Print course description
ECTS credits:
7.0
Instruction language:
Dutch
Coordinator:

- J.P.M. Cleutjens

Fac. Health, Medicine and Life Sciences

Groei en Ontwikkeling II

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN2102
Period 2
25 Oct 2021
17 Dec 2021
Print course description
ECTS credits:
7.0
Instruction language:
Dutch
Coordinators:

- K.D.G. van de Kant
- N.M.S. van den Akker

Fac. Health, Medicine and Life Sciences

Verteer en Verweer II

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN2104
Period 4
1 Feb 2022
1 Apr 2022

Bachelor Medicine

Print course description
ECTS credits:
7.0
Instruction language:
Dutch
Coordinators:

- A.G.A. Brouwers
- G.H. Koek

Fac. Health, Medicine and Life Sciences

Denken en Doen II

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN2105
Period 5
4 Apr 2022
3 Jun 2022
Print course description
ECTS credits:
7.0
Instruction language:
Dutch
Coordinator:

- S.P.G. Bours

Fac. Health, Medicine and Life Sciences

Schrijflijn Jaar 2

GEN2103
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
Dutch
Coordinator:

- R.A. de Bie

Fac. Health, Medicine and Life Sciences

Bachelor Medicine

Voortgangstentamen Jaar 2

GEN2006
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
8.0
Instruction language:
Dutch
Coordinator:

- A.M. Duijvestijn

Fac. Health, Medicine and Life Sciences

Programma Klinische Vaardigheden Jaar 2

Full course description

This study programme is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website.

GEN2020
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
Dutch
Coordinator:

- F.J. Jongen - Hermus

Fac. Health, Medicine and Life Sciences

Farmacotherapeutische Vaardigheden Jaar 2

Full course description

This study programme is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website.

GEN2022
Year

Bachelor Medicine

30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
Dutch
Coordinator:

- B.J.A. Janssen

Fac. Health, Medicine and Life Sciences

CORE Jaar 2

Full course description

This study programme is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website.

GEN2023
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
Dutch
Coordinator:

- I.M.E. Caubergh - Sprenger

Fac. Health, Medicine and Life Sciences

Portfoliotentamen Jaar 2

Full course description

This study programme is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN2108
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
16.0

Bachelor Medicine

Instruction language:
Dutch
Coordinator:

- M.M. Verheggen

Fac. Health, Medicine and Life Sciences

Reflectie Portfolio / Professioneel Gedrag Jaar 2

GEN2041
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
Dutch
Coordinator:

- M.M. Verheggen

Bachelor Medicine Year 2, Electives

Fac. Health, Medicine and Life Sciences

Autoimmune Diseases and Autoimmunity I

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN2301
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
Dutch
Coordinator:

- K.H.J. Gaens

Fac. Health, Medicine and Life Sciences

Genetic Conditions and Congenital Anomalies

Full course description

This study programme is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website.

GEN2303
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
Dutch
Coordinator:

- M. Vreeburg

Fac. Health, Medicine and Life Sciences

European and International Health Law

Full course description

International and European health law is about placing individuals legitimate expectations for their health provision into a context of rights and duties. It is about defining what one can expect, from whom, and in return for what. It is, therefore about seeing differences in those expectations and about seeing how universal standards emerge and are enforced. The relationship between individuals and health expectations and health provision seems, incredibly in the 21st century, to be a lottery of birth. Geographical and economic location, gender and race are all factors that produce difference in health expectations beyond simple genetics and chosen lifestyle factors. Globally, ‘health’ is a massive industry. Both health care as a service and pharmaceutical provision command enormous resources and a special place in political choices internationally. The implementation of health innovation, from lab to bedside, and in prevention and public health, is set against these backdrop issues.
In many ways, international and European health law is about ‘medical mobility’. It is about the way that expectations are mobile between cultures and people; it is about the way that standards and harmonisations operate in opposition to those differences; it is about the ways that individuals can move either to practice medicine or to enjoy the benefits of health care; it is about the way that innovations in care and treatment can move between geographical places.

For more extensive information click this link: Electives Bachelor Medicine

Course objectives

International and European Health Law is a short course that explores some of the aspects of these

relationships with health and the health industry. It is grounded in norms - on law and ethics - but it draws on multidisciplinary texts. In the four weeks of the course, we will examine the law relating to the following:
European Health Law. Central to European Union health law is the question of the competence of the European Union - that is to say, the power that the EU has to create law in relation to health. There are then specific legal instruments to discuss in relation to health law: the movement of professionals, the movement of patients; public health responses; health promotion.
International Health Law. International law is a matter of the agreements that States make between themselves in relation to specific purposes. We will consider the place of health in the human rights instruments, particularly the extent of the right to health care. We will consider the different aspects of 'global health', including access to pharmaceuticals.
The Basis of the Right to Health and the Foundation of MobilityUnderpinning the question of health provision at the international and European level are two fundamental issues: the construction of citizenship - the mooring of the individual's relationship to society; and the basis of solidarity - why, in a geographically-based, or territorially-based, citizenship do individuals and societies have duties that transcend borders, and what are the bases of the construction of these duties.

GEN2304
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- D.M.R. Townend

Teaching methods:
Assignment(s), Lecture(s), Work in subgroups, PBL
Assessment methods:
Assignment, Oral exam
Keywords:
European Health Law; International Health Law; Human Rights; Law; Ethics
Fac. Health, Medicine and Life Sciences

Fundamentals of Neuroscience

Full course description

There is a link to the programme 2.6 Translational Neuroscience. Registration for both is recommended. Fundamentals of neuroscience intends to extend your insights gained through fundamental research on brain structure and function to identify novel approaches for treating diseases of the central nervous system (CNS) and peripheral nervous system (PNS). This course will focus on the basic neuroscientific knowledge that the physician generally needs in order to deal intelligently and flexibly with the clinical problems she or he will face. Number of available places: 30

For more extensive information click this link: Electives Bachelor Medicine

Bachelor Medicine

GEN2305
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- M.P. Martinez Martinez

Fac. Health, Medicine and Life Sciences

Health & Development Challenges in Developing Countries: a Focus on HIV/AIDS

Full course description

Outline

This course critically focuses on health and development challenges in developing countries. Taking the HIV/AIDS crisis as our lens, we investigate inequalities and interdependencies on a global, international, national and local level, while considering the role of public, private and civil society actors. Why is it that the poor are primarily sick and dying of AIDS? Why does MSF (Doctors Without Borders) know how to solve the AIDS crisis, but does not get the necessary support to do so? It is our aim to understand the underlying development processes and unlock the ongoing debates. The course focuses on the following themes: HIV/AIDS, poverty, the Sustainable Development Goals (SDGs); colonialism and health; the role of actors of health development like, the WHO and UNAIDS; the relationship between human rights and access to medication; women and health; the influence of migration on health infrastructures; food, health and global crises like COVID-19.

Required knowledge

A good command of English is important.

Feedback

Students receive feedback during the conception and design of the development project and during the presentations.

Assessment

1. Take-home exam;
2. Skills assignment: subgroups design a health development project in the field of HIV/AIDS:
   - A project proposal;
   - A presentation;
3. Participation & Attendance

Ad1. The final take-home exam assesses command of the literature in the course: 3 open essay

questions; students answer 2 with a 1500-2000 word limit (60% of the final grade);
Ad2. The project proposal has to be handed in on the Thursday of week 3 before 23.59 hrs (30% of the final grade);
Ad3. In week 3 students present the development project they designed (10% of their grade);
Ad4. According to criteria set by FHML.

Final assessment

Take-home exam

For more extensive information click this link: Electives Bachelor Medicine

Course objectives

- To understand and analyze challenges of health and development in developing countries.
- To connect issues of globalization, inequality, poverty, development, capabilities and health.
- To understand theories, concepts and historical roots of global social, political and economic inequalities.
- To gain knowledge of the main global and international actors and networks in the field of health and development, including their aim, reach and effectiveness.
- To gain knowledge about the intertwined nature of major contemporary global health issues and the interconnection between finances, climate change, food, energy and migration in the Global North and South.
- To learn skills necessary to write a health development project proposal

Recommended reading

Katie Willis (2021). Theories and Practices of Development. London: Routledge. (3rd edition: ISBN 9781138677548).

GEN2306
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- W.W. Nauta

Teaching methods:
Assignment(s), Lecture(s), Work in subgroups, Paper(s), PBL, Presentations
Assessment methods:
Assignment, Participation, Presentation, Take home exam
Keywords:
HIV/AIDS, NGOS, Poverty, Human Rights, inequality and globalization, gender and health, global health, pharmaceutical companies.
Fac. Health, Medicine and Life Sciences

Exercise Physiology

Full course description

Various forms of exericse challenge the functions of our body. The fact that we usually cope well with those circumstances, sometimes under extreme conditions, shows that the body is capable of extensive adaptations. Studying of how our body handles exercise is an excellent way to understand the physiology as a whole. Moreover, the systems that allow us to perform well during exericse are the same that help us to survive diseases. Also, it is becoming increasingly clear that physical exercise is of primary importance for keeping a good health, such as preventing obesitas, diabetes, cardiovascular disease. Paradoxically, many physicians understand little about problems originating from exercise and dissuade often physical exercise in patients. This teaching block aims to study physiology of the human body until the most extreme situations and combine this with better appreciation of physical exercise by future physicians.

For more extensive information click this link: Electives Bachelor Medicine

Course objectives

Learning goals - anatomy, physiology, histology of the neuromuscular system - methods for studying force and velocity - aerobic vs. anaerobic metabolism - measurement of body composition - principles of various forms of exercise training - principles of testing force and velocity - effects of different forms of exercise training in health and disease - anatomy, physiology of respiration, ventilation and gas exchange and their regulation - abnormalities in ventilation and respiration in lung disease - consequences of staying at high altitude, in great depth; both acutely and chronically - effects of training on respiration, ventilation and gas exchange - constraints of exercise capacity by respiratory diseases - cardiovascular changes during exercise - cardiovascular changes due to exercise training - risks of exercise in cardiovascular diseases - exercise as treatment for cardiovascular diseases - fluid and salt management during exercise and heat - temperature regulation during exercise and ambient temperatures - effect ambient temperatures on exercise

Recommended reading

Literature and other reading material can be found in electronic block book.

GEN2307
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- R.N.M. Cornelussen

Teaching methods:
Assignment(s), Lecture(s), PBL, Presentation(s), Skills, Work in subgroups

Bachelor Medicine

Assessment methods:
Presentation, Written exam
Keywords:
exercise; physiology; pathology; respiration; water and salt homeostasis; heat acclimatization; heart; training
Fac. Health, Medicine and Life Sciences

Clinical Neurology

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN2310
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
Dutch
Coordinator:

- M.H.M.E. Anten - Dankers

Fac. Health, Medicine and Life Sciences

Pathologie: De Wetenschap achter de Diagnose

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN2314
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
Dutch
Coordinator:

- J.P.M. Cleutjens

Patient-centric Precision Oncology

Full course description

Now-a-days, patients are put centrally in the plethora of treatment options and each case is discussed individually to increase treatment effectiveness, precision, survivability and quality of life. The best treatment for the patient is chosen in a multidisciplinary discussion based on guidelines and decision support systems (see for example th century, while chemotherapy, immunotherapy and newer targeted therapies are products from the 20thIncreased understanding of the underlying biological processes drives the evolutionary changes in cancer treatment. Already in ancient Egypt, surgical removal of tumors has been documented. First reports on hormonal and radiation therapy are from the late 19www.predictcancer.org or www.adjuvantonline.com). The choice of therapy (or therapy combinations) depends upon the location and grade of the tumor and the stage of the disease, indicating the importance of non-invasive imaging tools, as well as the general state of the patient (performance status) and his/her wishes.

The goal of cancer treatment is a complete removal of the cancer without damaging the rest of the body, i.e. achieving cure with near-zero adverse effects. For early stage cancers this can be accomplished by surgery. In general, effectiveness is only limited due to the propensity of cancers to invade adjacent tissue or to spread to distant sites by microscopic metastasis. Furthermore, other treatments such as chemotherapy, radiotherapy and immunotherapy can have negative effects on normal healthy cells. Therefore, cure with non-negligible adverse effects may be accepted as a practical goal in some cases. Besides curative intent, practical goals of therapy can also include (1) suppressing the cancer to a subclinical state and maintaining that state for years of good quality of life (that is, treating the cancer as a chronic disease), and (2) palliative care without curative intent (for advanced-stage metastatic cancers).

Number of available places: 36

For more extensive information click this link: Electives Bachelor Medicine

Course objectives

Main goal

To learn about all multidisciplinary aspects related to Precision Oncology

Learning goals

- To understand the workflow of a patient
- To have a clear view of the contribution of the different disciplines within oncology:

1. Surgery
2. Radiotherapy
3. Systemic therapy (targeted, hormonal, chemo and immunotherapy)
4. Imaging
5. Physics
6. Biology
7. Computer sciences

Bachelor Medicine

8. Shared Decision Making

Outline of the program

The different disciplines contain one or more of the following components

- tutorial
- lecture
- assignment
- practical
- skills lab
- self-study cases
- visits to for example imaging, radiotherapy and surgery facilities

International health themes (ITM major / minor)

- Major: Cancer
- Minor: Treatments, tumor biology, imaging, medical physics, Shared Decision Making.

Required knowledge

English, basic of anatomy, physiology and biology

Feedback

Teachers, assignments, exam

Way of assessment

Your learning will be assessed in the following ways:

1. Written exam at the end of the block. The written exam will test your knowledge on the topic acquired during lectures, cases, assignments, practicals, … The mark will be 70% of the total grade.
2. Group assignment practicum DNA repair to be delivered within one week after the practicum: 10% of the total grade
3. Individual assignment practicum image analysis to be delivered within one week after the practicum: 10% of the total grade
4. TNM assignment: 10% of the total grade

Final assessment

The assignments count for 30% and the written exam for 70%.
The final grade will be converted to an F/P/G with an F (fail) corresponds to a score of
A written re-exam will be provided upon a score of

Recommended reading

Verellen, Nature Reviews Cancer 2007 Aupérin, Journal of Clinical Oncology 2010 Van Elmpt, Radiother Oncol 2012 Van Elmpt, J Nucl Med 2012 Lambin P, Predicting outcomes in radiation oncology —multifactorial decision support systems, Nature reviews | Clinical Oncology 2012 De Ruysscher D, European Organization for Research and Treatment of Cancer Recommendations for

Bachelor Medicine

Planning and Delivery of High-Dose, High-Precision Radiotherapy for Lung Cancer. Journal of Clinical Oncology. November 16, 2010

GEN2315
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- L.J. Dubois

Teaching methods:
Assignment(s), Lecture(s), Work in subgroups, Presentation(s), Onderwijspoli('s), Skills
Assessment methods:
Assignment, Attendance, Written exam, Presentation, Participation
Keywords:
Cancer and Radiotherapy Radiotherapy and oxygen Radiotherapy and immunotherapy agents Physics Advanced Imaging Brachytherapy Lung Cancer Linear accelerator, radiation, detection Dosimetry External Beam therapy Knowledge engineering oncology Palliative irradiation Patient safety Shared Decision Making
Fac. Health, Medicine and Life Sciences

Gezondheidszorg voor Mensen met een Verstandelijke Beperking

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN2317
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
Dutch
Coordinator:

- S. Franck

Fac. Health, Medicine and Life Sciences

Big Data, AI and Systems Medicine for Precision Diagnostics and Therapeutics

Full course description

For more extensive information click this link: Electives Bachelor Medicine

GEN2319
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- H.H.H.W. Schmidt

Fac. Health, Medicine and Life Sciences

Werken aan een Medisch Probleem met behulp van Creative Problem Solving en Design Thinking Technieken

Full course description

This study programme is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose 'NL' at the top of the website.

GEN2320
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- E. Pragt

Fac. Health, Medicine and Life Sciences

COVID-19

Bachelor Medicine

Full course description

For more extensive information click this link: Electives Bachelor Medicine

GEN2321
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- H.H.H.W. Schmidt

Fac. Health, Medicine and Life Sciences

Autoimmune Diseases and Autoimmunity II

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN2601
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
4.0
Instruction language:
Dutch
Coordinator:

- K.H.J. Gaens

Fac. Health, Medicine and Life Sciences

Metabolism from Child to Adult

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN2603

Bachelor Medicine

Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
4.0
Instruction language:
Dutch
Coordinator:

- M.E. Rubio Gozalbo

Fac. Health, Medicine and Life Sciences

Dutch Health Law

Full course description

Dutch Health Law and Health Ethics play an important part in setting the norms within which medicine is practiced. A study of the Dutch Law allows medical students the opportunity to explore the limits and opportunities that the Law places on their professional lives within the context of Dutch society. Health Law has been a part of the Faculty of Medicine since the creation of the Faculty. The Health Law group is now based in the Health, Ethics and Society department (Metamedica) in FHML and CAPHRI. It researches and teaches in the areas of traditional Medical Law (examining, for example, questions of patients rights, of medical professionals' duties, of the regulation of the profession, and of the rules concerning access to health care), and more interdisciplinary questions of Health Law (considering, for example, the regulation of the development and implementation of new technologies in health care, of Law's response to the health in society, the ethical construction of the Law, broader questions of the Law and nutrition and public health programmes and the rights of individuals to make life choices). Number of available places: 30

For more extensive information click this link: Electives Bachelor Medicine

GEN2604
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- D.M.R. Townend

Fac. Health, Medicine and Life Sciences

Introduction in Forensic Medicine

Full course description

This study programme is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website.

GEN2605
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
4.0
Instruction language:
Dutch
Coordinator:

- I.I.H. Haest

Fac. Health, Medicine and Life Sciences

Hormones

Full course description

This study programme is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website.

GEN2607
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
4.0
Instruction language:
Dutch
Coordinator:

- A.J. Gilde

Fac. Health, Medicine and Life Sciences

Infectious Diseases

Full course description

The importance and impact of infectious diseases is clearly demonstrated in the current COVID-19 pandemic. The different aspects of infectious diseases, like transmission, prevention, immune respons, diagnostics, treatment, epidemiology and pathogenesis are in the spotlight. Infectious diseases have always been an important cause of illness and death. Even in this century approximately a quarter of all deaths worldwide can be attributed to fatal infections. Because infections occur in all age groups and can affect all organs and tissues of the body, the study of these diseases is complex. The host's condition as well as factors pertaining to the microorganism, determine the course of the disease. In order to obtain an insight into infectious diseases in general, we chose to study a few representative infection types in this block. A study of these 'models' will provide students with a good basic knowledge of infectious diseases. The focus is on the clinical picture, causing microörganisms, microbiological diagnostics, antimicrobial treatment and epidemiology. The course is more focused on clinical practice than on pathogenesis. In the first 2 weeks of the block, bacterial infections will be studied, including antibiotic treatment, resistance and prevention of spread. The second half of the block will address viral, parasitic and fungal infections. This will be accomplished by means of clinical cases discussed in the tutorial groups, lectures, a workhop, a laboratory training and a quiz. In week 3, a conference will be organised and held by the participating medical students themselves. Depending on the situation regarding COVID-19, online alternatives will be organised.

For the final assessment, the written examination (60 multiple choice questions) accounts for 70% and the conference presentation for 30%. Due to COVID-19 it is possible that the examination will be held online and that open questions will be used instead of multiple choice questions.

Number of available places: 30

For more extensive information click this link: Electives Bachelor Medicine

Course objectives

- To gain insight into the classification of microörganisms and in the characteristics of microörganisms that are of importance for human beings.
- To understand the mechanisms that underlie the transmission and epidemiology of infectious diseases.
- To get insight in the problems of growing resistance of bacteria, and the efforts made to prevent spread
- To acquire knowledge about of a number of important infectious diseases
- To know the principles of microbial diagnostics.
- To know the principles of antimicrobial therapy.
- To acquire knowledge about antibiotic therapy
- To be aware of the importance of commensal flora, and to know the difference between colonization and infection
- To gain knowledge how to manage a hospitalized patient suspected of an infection.
- To be able to examine a current topic in the field of infectiology and to understand this subject either through recent articles or by means of a presentation by someone with expertise in the subject

Recommended reading

Basic microbiological and immunological knowledge as presented in previous blocks, especially 1.5 and 2.4.

GEN2608
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- H.A. van Dessel

Teaching methods:
Work in subgroups, Lecture(s), PBL, Presentation(s), Skills, Training(s)
Assessment methods:
Presentation, Written exam
Keywords:
Infection Infectious disease Antibiotic Isolation Surveillance Bacterium Virus Parasite Fungus Prevention
Fac. Health, Medicine and Life Sciences

Drugs in the Clinic: Every-day Challenges and New Developments in Evidence-based Therapy

Full course description

Drug therapy is of vital importance in modern clinical practice. 70% of what a medical doctor does in patient care is to prescribe a drug. Unfortunately, prescribing the optimal drug for the right patient at the right time is still not obvious and guidelines differ widely between different countries. However, there can only be one evidence. Inappropriate drug choice due to lack of knowledge of the prescribing physician, differences between populations or individuals, side effects of drugs, poor patient compliance and drug interactions may all contribute to suboptimal or even hazardous drug prescriptions. In this block the students will learn how factors such as those mentioned here can determine the outcome of drug treatment and how they should be taken into account. This course will prepare students optimally for the clinical phase and practical challenges ahead. The course focuses on the most frequently prescribed drugs and/or most frequent disease phenotypes. In addition, the students will learn about novel trends and developments in modern pharmacotherapy. Number of available places: 30 For those students who would like to continue, in the subsequent months a voluntary small scale Pharma+ master class (8 students) is offered.

For more extensive information click this link: Electives Bachelor Medicine

Course objectives

1. Understand the origin of therapeutic guidelines
2. Understand therapeutic evidence
3. Be able to make drug choices based on patient specific criteria
4. Have thorough knowledge on the drug therapy in major disease areas
5. Have thorough knowledge about very frequently prescribed drugs
6. Learn to know new trends such as biologicals and theranostics

Recommended reading

Basic cardiovascular, pulmonary pharmacology; neuropharmacology (neurotransmitters)

GEN2610
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- H.H.H.W. Schmidt

Teaching methods:
Assignment(s), Work in subgroups, Lecture(s), PBL, Presentation(s)
Assessment methods:
Assignment, Attendance, Participation, Presentation, Written exam
Keywords:
guidelines, Evidence, patient-relevant outcomes, surrogate markers, biologicals, theranostics
Fac. Health, Medicine and Life Sciences

Rehabilitation Medicine

Full course description

In dit keuzeblok maakt de student kennis met de inhoud van de medische specialisatie revalidatiegeneeskunde. Zowel de patiënt (de revalidant, geconfronteerd met gevolgen van ziekte/ongeval) als het werk van de revalidatiearts staan in deze kennismaking centraal. De student maakt zowel in theorie als praktijk kennis met de multidisciplinaire werkwijze binnen de revalidatiegeneeskunde. Naast de rol van de revalidatiearts, vormen de werkzaamheden van andere disciplines (zoals fysiotherapie, ergotherapie, logopedie, psychologie en maatschappelijk werk) een wezenlijk onderdeel in de kennismaking. Integraal in dit blok wordt tevens de impact van ongeval/ziekte op maatschappelijke participatie en kwaliteit van leven van patiënten belicht. In het blok wordt gewerkt met onderwijsgroepen, colleges, practica en patiëntencontacten. Aantal beschikbare plaatsen: 30 Meer info: zie Eleum - Organizations - FHML Students - BA GEN - Onderderwijs in Nederland - Keuzeonderwijs 2.3 en 2.6
GEN2612
Period 6

Bachelor Medicine

6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
4.0
Instruction language:
Dutch
Coordinator:

- G.M.M. Winnubst

Fac. Health, Medicine and Life Sciences

Translational Neuroscience

Full course description

There is a link to the programme 2.3 Fundamentals of Neuroscience. Registration for both is recommended. Translational neuroscience applies insights gained through fundamental research on brain structure and function to identify novel approaches for treating diseases of the central nervous system (CNS) and peripheral nervous system (PNS). Therefore, requires continuous interaction between fundamental and clinical neuroscientists. This course will focus on translational neuroscience knowledge that the physician generally needs in order to deal intelligently and flexibly with the clinical problems she or he will face and enables them to go back and forth between the clinic and the laboratory. Number of available places: 30

For more extensive information click this link: Electives Bachelor Medicine

GEN2614
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- M.P. Martinez Martinez

Fac. Health, Medicine and Life Sciences

Personalized Medicine in Cancer Treatment and Care

Full course description

Cancer arises through sequential steps including activation of oncogenes and inactivation of tumor suppressor genes by genetic and epigenetic mechanisms (hallmarks of cancer). During solid cancer growth, tumor cells interact continuously with their normal non-malignant neighbors (microenvironment) and co-opt cells of the immune system, fibroblasts, endothelial cells etc. These

interactions's both positively and negatively affect tumor growth and have a crucial role in tumor initiation and progression and influence therapy outcome. Genomic analyses of human tumors have shown these are genetically and phenotypically heterogeneous and that this heterogeneity underlies differential outcome and response between patients. The identification of this tumor heterogeneity has led to the development of individualized approaches directed against a subset of cancer cells with patient-specific characteristics (personalized medicine).

Using expert lectures, practical assignments, a journal club and through discussion of real world cases within tutor groups both basic and clinical aspect of personalized medicine will be discussed together with biologists and clinicians, thereby taking into account the latest developments within the field with a focus on treatments involving radiation therapy.

Other aspects of personalized medicine, which will be discussed, include the involvement of patients in decision making and new interactive methods to facilitate this shared decision making between physician and patient. Finally methodologies, which are used to determine how cost-effective a treatment is, will be discussed. These economical facts are increasingly important in our expensive healthcare system and provide challenging ethical considerations for our society.

Number of available places: 25

For more extensive information click this link: Electives Bachelor Medicine

Course objectives

1. Understand the concept of personalized medicine, how is it investigated and how it can be applied in cancer patients
2. Understand the genetic basis for cancer development and treatment response and the role of the tumor microenvironment therein.
3. Understand the concept and implications of shared decision making and economical analysis of healthcare decisions in (personalized) medicine

GEN2615
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- K.M.A. Rouschop

Teaching methods:
Work in subgroups, Lecture(s), PBL, Presentation(s), Skills, Working visit(s), Assignment(s), Paper(s)
Assessment methods:
Participation, Written exam, Assignment, Computer test
Keywords:
cancer; personalised treatment; microenvironment
Fac. Health, Medicine and Life Sciences

Gender and Diversity in Medicine

Full course description

Gender Medicine is a specialty at the forefront of medical research. Health issues related to sex and gender, however, are not systematically taught in regular medical curricula. This course will introduce students to the field of Gender Medicine and provide an overview of the most recent insights into sex and gender implications in medical fields such as cardiology, pharmacology, and mental health. Students will learn to understand how sex and gender and diversity are important factors in disease susceptibility, recognition of symptoms, presentation of symptoms, compliance with therapy, and coping with diseases. Please note that only students of the second year and above can enroll in the course.

For more extensive information click this link: Electives Bachelor Medicine

Course objectives

The aim of the module is to integrate gender medicine into medical education and research. Students will learn to grasp the fundamental principles and scientific standards of gender medicine in selected medical disciplines (specializations). Students will learn to understand the importance of taking sex, gender, and diversity aspects into consideration in medical treatment and research. They will acquire an overview of fields of evidence-based medicine, where sex and gender aspects are already implemented. They will familiarize themselves with instruments of gender and sex differences in diagnosis and therapy with a view to implementing these in their future work as physicians or as biomedical researchers. Number of available places: 30

Recommended reading

Sabine Oertelt-Prigione and Vera Regitz-Zagrosek (eds) Sex and Gender Aspects in Clinical Medicine, 2012, Springer London. Gendered Innovations in Science, Health & Medicine, Engineering and Environment (2013) www.genderedinnovations.eu

GEN2316
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- M.T. Brancaccio

Teaching methods:
Assignment(s), Work in subgroups, Lecture(s), Paper(s), Presentation(s), Research, Training(s)
Assessment methods:
Assignment, Attendance, Final paper, Participation, Presentation
Keywords:

Bachelor Medicine

sex; gender; basic research; biomedicine; clinical practice; health; research; innovative methodologies
Fac. Health, Medicine and Life Sciences

Clinical and Therapeutic Aspects of Thrombosis

Full course description

Haemostasis, or the physiological formation of a blood clot to arrest bleeding, was briefly studied in block 1.2 of Medicine. The pathophysiological formation of a blood clot, the so-called thrombus, is worldwide the leading cause of death. The formation of a thrombus can occur in both arteries and veins with different outcomes. Arterial thrombosis may lead to development of ischemic heart disease (myocardial infarction) or stroke. According to the WHO, both diseases accounted for 15% of all deaths worldwide (15 million deaths in 2015). Understanding disease mechanism, (early)diagnosis, and anticoagulant treatment options are key in prevention of thrombosis. This teaching block aims in training of Medicine students in thrombosis pathology, involved mechanisms, relation to other diseases, anti-thrombotic therapy, as well as provide a basis for clinical routines.

For more extensive information click this link: Electives Bachelor Medicine

Course objectives

Haemostasis, platelets, coagulation, anti-thrombotic therapy, anti-platelet therapy, anti-coagulants, bleeding, arterial thrombosis, venous thrombosis, thrombosis service The Netherlands, laboratory assays and interpretation, patient care, genetics in coagulation, research in haemostasis.

Recommended reading

Versteeg HH, Heemskerk JW, Levi M, Reitsma PH. New fundamentals in hemostasis. Physiol Rev. 2013 Jan;93(1):327-58. Spronk HM, Govers-Riemslag JW, ten Cate H. The blood coagulation system as a molecular machine. Bioessays. 2003 Dec;25(12):1220-8. Review.

GEN2617
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- H.M.H. Spronk

Teaching methods:
Assignment(s), Lecture(s), Work in subgroups, PBL, Presentation(s), Skills
Assessment methods:
Assignment, Attendance, Observation, Oral exam, Participation
Keywords:

Public Health in International Context

Full course description

A look at questions of public health and health care from an international perspective reveals two basic realities: globalization and tradition. As the world globalizes, health threats and opportunities are also becoming more global. However, this trend coexists with a more traditional reality. Namely, as we look internationally, we see an enormous diversity in health status—and even in definitions of health and understandings of how it is best pursued—among the many cultures of the world.

This module is designed to give students insight into both basic realities, and hence the module's name: Public Health in International Context. In this module, we will explore how travel, migration, and climate change are giving rise to a new context in which infectious disease and other health threats are viewed. Further, we will consider the opportunities and barriers created by international cultural diversity for health care and public health activity.

The module covers four weeks and each week focuses on one particular theme. There are five set themes:1) Global health epidemiology and data sources, 2) transnational health governance and development and 3) Mental health 4) Tobacco, and 5) Climate change. There is one open theme for which several seminar sessions will be organized together with and around the expertise of an international guest speaker who will visit us during the module.

In a group of approximately 6 students you will also conduct research mainly based on existing literature into one major public health problem at the international level (such as HIV/AIDS, malaria or tuberculosis). You will report the results of this analysis in a group paper.

Recommended reading

The basic literature that will be used in this module is: • Birn, A., Pillay, Y. and T. Holtz (2009). Textbook of International Health: Global Health in a Dynamic World. New York: Oxford University Press. • Buse, K., Mays, N., and G. Walt (2005). Making Health Policy. Maidenhead: Open University Press. • Detels, R., Gulliford, M., & Karim Q. A. (Eds.) (2015). Oxford Textbook of Global Public Health. Oxford: Oxford University Press. Additional literature will be provided for each task and will be made available through the Reference list.

PGZ2026
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
5.0
Instruction language:
English
Coordinator:

- S. Stutterheim

Bachelor Medicine

Teaching methods:
Work in subgroups, Lecture(s), PBL, Paper(s), Training(s)
Assessment methods:
Attendance, Final paper, Written exam
Fac. Health, Medicine and Life Sciences

Practical Skills Public Health in International Context

Full course description

The practical skills training includes three elements:

1. Training on the role of culture on health care and public health practice internationally. Culture and differences between (and within) cultures is an aspect interrelated with considering public health in an international perspective. In this training you will look at the important role of culture in defining how people define health and ill-health, as well as how they understand what determines health, what health related customs are and how health can therefore best be pursued. During this training you will work on an assignment around culture and cultural sensitivity of interventions and research in a group of six students. Findings will be presented in an oral presentation.
2. Training international collaboration. During this training you will learn about the facilitators and barriers of working with different nationalities. This training will consist of a theoretical and a practical part. The theoretical part will inform you on challenges of working with team members from different nationalities and cultural backgrounds. In addition, you will learn more about the impact nationality and culture can have on collaboration in teams.
3. A field visit to a refugee center.

PGZ2226
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
1.0
Instruction language:
English
Coordinator:

- R.J.J. Elands

Teaching methods:
Assignment(s), Work in subgroups, Lecture(s), Working visit(s)
Assessment methods:
Attendance, Final paper, Presentation
Fac. Health, Medicine and Life Sciences

Klinische Stage Complexe Zorg uit Patiëntperspectief

GEN2311
Period 3
3 Jan 2022

Bachelor Medicine

28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
Dutch
Coordinator:

- K.R.J. Schruers

Fac. Health, Medicine and Life Sciences

Multidisciplinary Multimorbidity in Nursing Home Practice

Full course description

De module betreft stageonderwijs: de meeste tijd wordt besteed aan activiteiten in het verpleeghuis zelf. De student gaat, na een korte inwerkperiode, 3 dagen meewerken met de verzorging op een verpleegafdeling, zodat men alle aspecten van de reguliere verpleeghuiszorg kan meemaken aan de hand van de directe zorg die verleend wordt aan de verpleeghuispatiënten. Dit betekent concreet vroeg opstaan! De student loopt 4 weken stage op een somatische afdeling.. Men mag alleen onder begeleiding zorghandelingen uitoefenen, en eventueel na gebleken deskundigheid verkrijgt men meer zelfstandigheid. Door 2 patiënten nader te vervolgen, kan de student ook kennis maken met het werk van de andere disciplines, waaronder fysiotherapeuten, ergotherapeuten, logopedisten, psychologen, maatschappelijk werkenden, diëtisten en pastoraal werkers en uiteraard met het werk van de specialist ouderengeneeskunde. Daarnaast zijn er natuurlijk ook nog groepsbijeenkomsten, w.o. de inleidende bijeenkomst en een terugkomdag en is er tijd voor zelfstudie, en voor het voorbereiden van de casusrapportages en plenaire presentaties die op de afsluitende dag getoond moeten worden en vervolgens ook beoordeeld. De casusrapportages vinden plaats via een casusverslag; deze worden door de afdelingsarts beoordeeld en de beoordeling wordt nadien ingeleverd bij de facultaire begeleider. Elke groep studenten die in één zorgorganisatie stage loopt, maakt een powerpointpresentatie (maximaal 15 minuten) over een aan de verpleeghuiszorg gerelateerd thema; deze presentatie wordt zoals aangegeven op de laatste dag gepresenteerd.
Aantal beschikbare plaatsen: 20

Course objectives

Inzicht en kennis krijgen in de organisatie van de zorg in een verpleeghuis. Inzicht en kennis hebben van multidisciplinair samenwerken in de zorg. Patienten vervolgen en hun multidisciplinaire morbiditeit in kaart brengen.

Recommended reading

Olde Rikkert, ea ; Probleemgeorienteerd denken in de geriatrie.

GEN2313
Period 3
3 Jan 2022
28 Jan 2022
Print course description

Bachelor Medicine

ECTS credits:
4.0
Instruction language:
Dutch
Coordinator:

- W.M.P.G. Wolfs

Teaching methods:
Assignment(s), Patient contact, Presentation(s), Skills
Assessment methods:
Assignment, Presentation
Keywords:
Stage met patientcontacten in een verpleeghuis.

Bachelor International Track in Medicine (ITM) Year 2

Fac. Health, Medicine and Life Sciences

Circulation and Breathing II

Full course description

In year 1, the physiology of the cardiopulmonary system has been studied. In year 3, chronic cardiopulmonary pathology will be discussed from a clinical perspective. Course 2.1 forms the bridge between year 1 and 3 by focusing on basic pathophysiology of cardiopulmonary diseases. The course is built around the major organ system involved: the heart, vasculature, kidneys and lungs. Each of these four parts starts with an introductory lecture on physiology, to refresh the knowledge about each organ system, and ends with a clinical lecture detailing how pathophysiological mechanisms affect patients and how this knowledge can guide treatment. The following diseases are discussed in tutorial groups: • The vasculature: atherosclerosis and myocardial infarction • The heart: arrhythmias, valvular disease and heart failure • The kidneys: renal artery stenosis and acid-base disorders • The lungs: asthma and pneumonia The course includes practica on hemodynamics, anatomy and histology, as well as 'skills lab' training on physical examination of cardiac function, pulmonary function and resuscitation. Each tutorial group will give a short presentation at a poster session about a variety of topics in pulmonary (patho)-physiology. In addition, a workshop on the design of randomized clinical trials will be organized. At the end of the course, we will focus on hypovolemic and septic shock, integrating the (dys)-regulation by the organ systems and the interactions within the cardiopulmonary system.

Course objectives

Knowledge and insight The following diseases are discussed in tutorial groups: • the vasculature: atherosclerosis and myocardial infarction, • the heart: arrhythmias, valvular disease and heart failure, • the kidneys: renal artery stenosis and acid-base disorders, • the lungs: asthma and pneumonia. At the end of the course, we will focus on hypovolemic and septic shock, integrating the (dys)-regulation by the organ systems and the interactions within the cardiopulmonary system. Skills The course includes practica on hemodynamics, anatomy and histology, as well as skillslab training on physical examination of cardiac function, pulmonary function and resuscitation. Each tutorial group will give a short presentation at a poster session about a variety of topics in pulmonary

(patho)-physiology. In addition, a workshop on the design of randomized clinical trials will be organised.

ITM2101
Period 1
1 Sep 2021
22 Oct 2021
Print course description
ECTS credits:
7.0
Instruction language:
English
Coordinator:

- S. Verheule

Teaching methods:
Lecture(s), PBL, Skills
Assessment methods:
Assignment, Presentation, Written exam
Fac. Health, Medicine and Life Sciences

Growth and Development II

Full course description

This block links up to block Growth and Development in year 1 (block 1.1). Once more the stages of life form a connecting thread throughout the block. In the first year the normal procedure of growth and development has already received much attention. In this block we build upon this knowledge and we would also like to get you acquainted with abnormal growth and development. This is done problem based by using cases, in which basic (patho-) physiological processes, diagnostics and treatment are covered. Lectures provide additional knowledge partly by means of patient demonstrations. The first four weeks concern pregnancy, delivery and birth. In the fifth week child development is covered together with some puberty related themes. In week 6 and 7 the central theme is formed by abnormal growth of tissues and treatment for oncological disorders. We close of in the last week of the block with functional changes that occur in ageing.

The block goes through this sequence: from preconception care (healthy pregnancy) via embryonic development and pregnancy and the child's developmental milestones, to aging and death from cancer. Herein comes learned material from year 1 that will be further deepened. In addition, we will show you a small part of the return of these molecular processes during life. For example, some genes that are crucial for embryonic development later in life are responsible for the development of cancer when they mutate, a process that was recognized and described by Rudolf Virchow 150 years ago.

The 'beginning of life' has always been a reason for ethical debates. This applies to a number of developments in healthcare that are discussed in this block: preconception care, medically assisted reproduction and prenatal screening. Can everything be done? What is the responsibility of future parents, doctors and the society?

Bachelor Medicine

Course objectives

Knowledge and insight • Normal procedure of growth and development • Abnormal growth and development • Basic (patho-) physiological processes, diagnostics and treatment • Pregnancy, delivery and birth • Child development • Abnormal growth of tissues and treatment for oncological disorders • Functional changes that occur in ageing Skills • Skills training Gynaecology and Obstetrics • Assesment of the development of the infant and child • Examination of the breasts Scientific aspects • A ‘congress day’ is organised that includes a forum discussion, posters and presentations of scientific data made for and by the student

ITM2102
Period 2
25 Oct 2021
17 Dec 2021
Print course description
ECTS credits:
7.0
Instruction language:
English
Coordinator:

- A. Herrler

Teaching methods:
Lecture(s), Patientcontact, Skills, PBL, Assignment(s), Work in subgroups, Presentations, Working visit(s)
Assessment methods:
Assignment, Attendance, Computer test, Participation, Presentation
Keywords:
Key disciplines: Obstetrics/Gynaecology, Oncology, Anatomy,, Biochemistry, Genetics, Molecular Cell Biology, Pathology, Physiology,, Paediatrics, Pharmacology, Skills training, Epidemiology.,
Fac. Health, Medicine and Life Sciences

Digestion and Defence II

Full course description

This block comprises three main themes: microbiology, immunology and gastroenterology. It bridges the block Digestion & Defense of year 1 (block 1.5) and the Abdomen cluster of year 3. The block in year 1 focused extensively on the normal anatomy and physiology of the digestive tract and the basic principles of microbiology and immunology. The cluster in year 3 will focus primarily on clinical reasoning, which leads to a differential diagnosis and a therapy. To prepare the students for this cluster, the second-year block covers pathophysiology. Using a selection of clinical pictures, we will discuss the main principles and concepts of gastroenterology, medical microbiology and immunology, building on the knowledge of basic physiology and anatomy as you acquired in year 1. The block also addresses societal and psychosocial themes (public health, dealing with chronic disease, screening). The concept of illness scripts (clinical picture, provoking factors, epidemiology) is introduced to practice clinical reasoning skills. The pathophysiological concepts in some of the cases are reduced to a limited number of disease mechanisms.

The discussions in the tutorial groups about pathophysiological concepts in the context of disease

mechanisms prepare for the phase of clinical reasoning and setting diagnoses. However, solid knowledge of basic subjects is essential. The students are therefore expected to master or review the content of the block Digestion & Defence in year 1.

The block also provides further scientific training. With respect to epidemiology, the focus will be on etiological research, with specific attention for causality, study designs, confounding, bias, internal versus external validity. Statistics will include linear regression analysis, which was already introduced in block 2.1 and will now be extended to multiple linear regression analysis.

Course objectives

- Explanation of the signs and symptoms of the main clinical pictures of gastric/intestinal and liver disorders from (patho)physiological concepts and disease mechanisms

1. Acute abdomen
2. Pathophysiology of swallowing; gastro oesophageal reflux disease, esophageal carcinoma
3. Peptic ulcer; stomach, duodenum
4. Gastrointestinal absorption: abnormal nutrient absorption
5. Liver cirrhosis: consequences of abnormal liver function
6. Causes and consequences of biliary tract obstruction
7. Normal and abnormal intestinal and colonic motility
8. Common causes of chronic abdominal pain (irritable bowel syndrome, lactose intolerance, celiac disease)
9. Pathophysiology, histology and pathology in Crohn’s disease and ulcerative colitis

- Knowledge of malaria (e.g. pathogenesis, diagnostics, treatment, prevention and epidemiology)
- Knowledge of the pathogenesis, diagnosis, treatment, complications, prevention and epidemiology in case of infection with HIV
- Knowledge of the pathogenesis, diagnosis, treatment, complications, prevention and epidemiology in case of influenza and coronavirus infections
- Knowledge of the pathogenesis, diagnosis, treatment, complications, prevention and epidemiology in case of infection with tuberculosis
- Knowledge of the various mechanisms of action of antibiotics
- Knowledge of the mechanisms of the development and action of resistance
- Hypersensitivity reactions/allergy (major aspects of diagnostics and treatment)
- Knowledge of the principles of immunological tolerance
- Knowledge of the mechanism and most common types of autoimmune disorders
- Psychosocial and ethical aspects of selected clinical pictures (addiction, organ donation)
- Statistics: multiple linear regression
- Epidemiology: etiological research, with specific attention for causality, study designs, confounding, bias, internal versus external validity

The objectives elaborate on those of block 1.5 in year 1. For each case of block 2.4 make a list of related learning goals studies in 1.5. Check if you still manage this knowledge adequately. If this is not the case, repeat this case. Before starting the post-discussion sum up the case related topics of 1.5 on white board.

Recommended reading

Mescher and Junqueira. Junqueira’s basic histology; 12th ed. Boron & Boulpaep. Medical Physiology.

2nd ed. Marieb, Hoehn. Human Anatomy & Physiology, 8th ed. I Primal pictures (e-book available via e-reader) Guyton and Hall: Textbook of Medical Physiology; 11th ed Devlin. Textbook of Biochemistry; 7th ed Berg & Stryer. Biochemistry Smith and Morton. The Digestive System; 1st ed. Yamada. Textbook of Gastroenterology; 5th ed Robbins and Cotran. Pathologic basis of disease; 8th ed Chandrasoma & Taylor. Concise Pathology 3rd ed. E-book UM library Murray. Medical Microbiology; 6th ed Levinson & Jawetz. Medical Microbiology and Immunology; 7th edition Abbas & Lichtman, Basic Immunology; 3d ed 2008 The Universal Declaration of Human Rights. www.un.org International Health Law (David Townend)

ITM2104
Period 4
1 Feb 2022
1 Apr 2022
Print course description
ECTS credits:
7.0
Instruction language:
English
Coordinator:

- I.H.M. van Loo

Teaching methods:
Lecture(s), PBL, Skills
Assessment methods:
Assignment, Written exam
Keywords:
Gastroenterology, Medical Microbiology, immunology, Health Law, Pathophysiology
Fac. Health, Medicine and Life Sciences

Thinking and Doing II

Full course description

This is the final regular 8-week course of year 2, covering aspects of thinking (cognitive, motivational and emotional disorders as well as disorders of sensory systems such as the visual system, sense of touch and position) and aspects of movement (disorders related to the motor system, bones, muscles and joints). The course offers more in-depth knowledge on previously seen topics as well as new subjects as a sequel to the issues discussed in the course 'Thinking & Doing I' in year 1.

The brain is the source of movement, posture, touch, vision, cognition, emotion and motivation. Disturbances of these systems may occur in isolation, but also in combination. Therefore, this course will show how the different topics are integrated. The topics will often be approached by means of clinical reasoning, in order to facilitate the transition to year 3. This implies that educational methods closer to real practice will be applied. The patient’s symptoms and complaints are used as a starting point in most cases, leading to a final clinical case in which a variety of course-related medical disciplines will be integrated. The course thus aims to train the students to consider differential diagnoses based on the patient’s symptoms.

Aspects of ophthalmology covered in this course include the anatomy, physiology and

pathophysiology of some common eye disorders and causes of visual impairment, including vision and several eye measurements. Thinking & Doing in year 1 focussed on the lower extremities. This course studies anatomy of the spinal column and shoulder problems, the pathophysiology of osteoporosis and osteoarthritis, radicular problems (e.g. herniated disc) and non-specific back pain, including the social consequences such as incapacity for work. The biospychosocial model will be introduced. Back problems are also used to study neuroanatomy (dermatomes, myotomes, peripheral nerves). Furthermore, the anatomy of the brain will again be addressed, now with special focus on stroke patients. Included are aspects of diagnostics (localisation principles), consequences for the patient, acute and long-term treatment. The course also covers cognitive and affective processing which are related to several psychiatric disorders. The students will also learn to conduct a mental state examination, which is part of the psychiatric interview.

Course objectives

Eye: Anatomy: Functional anatomy of the eye, blood supply, adnexa, papilla and macula Physiology: Physiological optics Emmetropia and accommodation Ametropia, myopia, hypermetropia, astigmatism, presbyopia Functioning of the retinal receptors, organisation and conduction of stimuli Skills: Vision examination, far and close by Diagnostic refraction testing, Amsler, External inspection of the eye and adnexa with penlight/ophthalmoscope and loupe Locomotor/neurology: Anatomy: Spinal column, shoulder, spinal cord and nerve roots, trunk muscles Pathophysiology: Ageing of the spinal column and pathophysiology of osteoarthritis Osteoporosis: bone physiology, pathophysiology, symptoms, diagnostics and risk factors Pathophysiology of fractures and fracture healing Radicular syndrome Nonspecific low back problems Shoulder problems: dislocation, impingement Skills: Methodical examination of the cervical, thoracic, lumbar spinal column and shoulder based on case studies Brain/ neurology: Stroke: diagnostics, acute and long-term treatment Long-term consequences Skills: History taking and physical examination of stroke patients and examination of patients with radicular irritation in the leg (integration examination of the back and neurological examination) Brain/psychiatry: Regulation and dysregulation of emotion, motivation and cognition Biological, psychological, ecological aspects of depression and dementia and aspects of communication Skills: Mental state examination / Clinical reasoning based on symptoms Other aspects Work and health, organisation of healthcare Neurobiology of pain Biopsychosocial model Ethics concerning early diagnostics Gene environmental interaction, genetic vulnerability

Recommended reading

1. Neuroanatomy through clinical cases: a systematic approach (2010). Hal Blumenfeld. 2. Clinical Ophthalmology: a systematic approach (2011). JJ. Kanski, B. Bowling, KK. Nischal, & A. Pearson. 3. Stahl's essential psychopharmacology: neuroscientific basis and practical application 4. Guyton and Hall textbook of medical physiology (eBook 2016, free access UB). John E. Hall.

ITM2105
Period 5
4 Apr 2022
3 Jun 2022
Print course description
ECTS credits:
7.0
Instruction language:
English
Coordinator:

Bachelor Medicine

- L. Goossens

Teaching methods:
Lecture(s), PBL, Skills, Training(s), Assignment(s), Paper(s), Presentations
Assessment methods:
Assignment, Computer test, Participation
Keywords:
Key disciplines: Ophthalmology, neurology, Psychiatry, locomotor system
Fac. Health, Medicine and Life Sciences

Academic Writing Year 2

ITM2103
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
English
Coordinator:

- R.A. de Bie

Fac. Health, Medicine and Life Sciences

Progress Test Examination Year 2

Full course description

Starting in the academic year 2017-2018 progress tests for the International Medical Program will take place online (compared to the previous written tests). The IPT differs from the iVTG (the Dutch progress test) as it is shorter due to a technology used called computer-adaptive testing. As the test is taken by computer, students cannot take the test booklet home. Furthermore the IPT does not contain items related to Dutch laws, the Dutch code of ethics and the Dutch healthcare system and items have been added that are more suitable for international and internationally-oriented students. All references for the IPT test items are in the English language. The IPT has an IPT committee which takes care of the production, quality, analysis, and standards of the test, as well as the feedback to the students. The coordinator of the IPT has been appointed as examiner by the Board of Examiners. In addition to writing new and more internationally oriented test items, the IPT committee also checks items that are currently used for the test and rewrite them as needed. All items approved by the IPT committee are added to an item bank. The IPT committee consists of a chairperson (the coordinator, a psychometrics analysist in charge of standard setting and test analysis) and five members from the three cluster disciplines: core, clinical and behavioural modules. The international progress test (IPT) is an instrument to measure medical students' progress in knowledge during their studies and is therefore an assessment instrument in the competence domain of 'medical expert'. The progress exam consists of four progress tests per academic year.

Course objectives

The tests are compiled based on a blueprint indicating how many items from each sub-area should be included in the test. Sub-areas are created by crossing two item classifications (disciplines and categories). The test blueprint is similar to the iVTG blueprint (except for categories as described above) Each test contains 100 MCQ questions. There will be four of these tests per year and the combination regulations as described below (Progress Exam) apply across progress tests for judging the end result at the end of the year.

ITM2006
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
8.0
Instruction language:
English
Coordinator:

- B. Schutte

Assessment methods:
Computer test
Fac. Health, Medicine and Life Sciences

Programme Clinical Skills Year 2

Full course description

The Skillslab provides training sessions for medical students to learn the skills they need when working with patients. Approximately half of the training sessions concern physical examination skills, such as taking blood pressure or examining a knee, the other half are procedural (therapeutic) and laboratory skills, such as urinalysis.

Skillslab training sessions are organised for each block and are related to the block theme. The students register themselves for the training sessions or are allocated to a particular training. Each training session accommodates a group of ten students and is supervised by a skills teacher/doctor or sometimes (depending on the skill) an anatomy teacher or clinical expert.

The training sessions each last 1.5 hours, during which the students learn a particular skill. Each session starts with a short introduction after which the skill is demonstrated and/or the students practise the skill in pairs: one student examines the other. The teacher checks whether the skill is performed correctly and gives the students feedback.

Some skills are practised on models and manikins if the real situation cannot be simulated (resuscitation, for instance) or if practising on each other is undesirable for other reasons (gynaecological examination, for example).

The Skillslab has implemented programmatic assessment. Skills assessment consists of frequent feedback on the students' skills and monitoring individual progress. At the end of the bachelor's

programme, the students take a skills test in which they are expected to show that their skills levels are sufficient to be admitted to the master's programme.

Course objectives

To teach the skills medical students need when they work with patients.

Recommended reading

Skills in Medicine (SIM) The skills training sessions at the Skillslab often refer to the "Skills in Medicine" series. This series of booklets describes the skills the students need to learn and provides useful illustrations of the skills. The booklets and video clips are also available online for students and teachers at the UM campus (and via a VPN client outside of the campus) at: http://www.vig-mu.nl. The Skillslab programme also often refers to the book Bates' Guide to Physical Examination and History Taking. Fysische diagnostiek available on line and Praktische Vaardigheden becomes available online (both at this moment in Dutch).

ITM2020
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
English
Coordinator:

- F.J. Jongen - Hermus

Teaching methods:
Assignment(s), Patient contact, Skills, Training(s)
Assessment methods:
Assignment, Observation, Oral exam, Participation, Portfolio
Keywords:
Clinical Skills, Skills, Skills training, Skillslab
Fac. Health, Medicine and Life Sciences

Pharmacotherapeutic Skills Year 2

Full course description

In the Netherlands, doctors can choose from over 1500 different generic medicines (and a multitude of branded drugs) that are available on the market. A doctor makes use of approximately 50-150 medicines in his practice. Therefore it is important that a medical student needs to be trained how to select the most optimal medicine for the individual patient.

The department of Pharmacology & Toxicology coordinates the teaching activities on medication. In the bachelor phase students are trained to make rational pharmacotherapeutic choices, via a WHO approved 6-step method. These assignments will be made available via the e-learning program

Pscribe (www.pscribe.eu) and help the student in building their personal formulary, a set of medicines with which the physician is very accustomed and can treat most of his patients.

In year 2 the assignments will be available for the following medical problems

1. Hypertension / COPD
2. Pregnancy and medication safety
3. Infections / Gastro-intestinal problems
4. Psychomedical problems
5. Osteoporosis, arthritis, bone fractures

The top 100 of most prescribed medicines in the NL can be retrieved from www.gipdatabank.nl

Course objectives

1. rational prescribing of medicines via the 6-step method
2. writing of scientific information on medicines
3. actual writing of a prescription

ITM2022
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
English
Coordinator:

- B.J.A. Janssen

Teaching methods:
Assignment(s)
Assessment methods:
Assignment
Fac. Health, Medicine and Life Sciences

CORE Year 2

Full course description

CORE programma Bachelor Geneeskunde jaar 2 ITM (ITM 2023)

Students learn to conduct encounters with patients who present with cases that somewhat resemble the cases in their theoretical second-year curriculum. Additionally they reflect on aspects of diversity between individual patients they witness in these cases. Simulated patients present the cases while students integrate their knowledge, preferred approach and attitude in a consultation that runs as smoothly as possible. The simulated patients provide tailor-made feedback after the consultation. Additionally the consultations are recorded on video. The students watch the recordings and two weeks later a feedback session takes place with a teacher. In this session they address the medical

content, their ‘approach’ and possible ethical issues relevant for the case.

Course objectives

Intended learning objectives of the second-year CORE-programme:

- Being able to conduct a full doctor-patient encounter, as far as their knowledge allows
- Being aware of the limitations in their knowledge, and being able to handle these limitations with regard to themselves and the (simulated) patient
- Being able to structure a consultation into different phases

Recommended reading

-Silverman J, Kurtz S, Draper J. Skills for communicating with patients. 2nd edition. Oxford: Radcliffe. 2005.

ITM2023
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
English
Coordinator:

- I.M.E. Caubergh - Sprenger

Teaching methods:
Work in subgroups, Training(s)
Assessment methods:
Attendance, Observation, Participation, Portfolio
Keywords:
communication skills, diagnostic skills
Fac. Health, Medicine and Life Sciences

Portfolio Examination Year 2

Full course description

In year 2, the quality of the analyses on the experience cards is further developed. In addition, the bridge to competence thinking is built. Experiences are linked to the competences of the doctor as described in the 2009 Medical Study Programme. Using the competence cards, students look for patterns in their study results, experiences and feedback, and systematic strength-weakness analyses are made. Based on these analyses, individual learning goals are formulated.

Within the context of the portfolio, the development of specific knowledge and skills is supervised and assessed by content expert subject teachers. Their assessments and feedback serve as input for the portfolio in the form of evidence.

In year 2, every student has at least three contacts with the mentor to discuss his/her development based on the portfolio. These contacts are structured as follows: Under the guidance of the mentor, the student makes analyses of this input and draws up learning goals.

The first contact (block 2.2) is an individual contact. Before this conversation, the student has received feedback on the portfolio from both his own mentor and another mentor. In the conversation, the study-life balance, the study progress and the received feedback are discussed.

The second contact (block 2.4) takes place in the mentor group. This is an intervision meeting. In addition, the students are informed about the assessment of the year 2 portfolio. If necessary, another individual conversation takes place with a student.

The third contact (block 2.5) is again an individual contact, in which the assessment of year 2 is central.

The portfolio must contain evidence, test results, experience cards, competency cards, discussion cards and learning objectives. The portfolio must be updated before every contact with the mentor.

Course objectives

A portfolio is used that is based on and connected to the context of their study phase. This is an electronic portfolio in EPASS, which is combined with a mentoring system. In the bachelor's phase, it was decided to guide students in their development as medical professionals from the start of their studies,

A portfolio in combination with a mentoring system is an instrument that can help the bachelor's student to:

- gain and maintain insight into the development of knowledge and skills (their own "growth curve") and to make timely adjustments where necessary;
- learn in practice from experience and feedback and organise their own learning process;
- identify problems in and around the study at an early stage so that appropriate help can be called in and/or study delays can be prevented;
- gradually learning to reflect on development from the perspective of competences, in order to facilitate the transition to the master phase and the master portfolio;

ITM2106
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
16.0
Instruction language:
English
Coordinator:

- M.I. Kruithof

Teaching methods:

Bachelor Medicine

Assignment(s), PBL
Assessment methods:
Assignment, Attendance, Participation, Portfolio
Fac. Health, Medicine and Life Sciences

Reflection Portfolio / Professional Behaviour Year 2

ITM2041
Year
30 Aug 2021
30 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
English
Coordinator:

- M.M. Verheggen

Bachelor International Track in Medicine (ITM) Year 2 Electives

Fac. Health, Medicine and Life Sciences

European and International Health Law

Full course description

International and European health law is about placing individuals legitimate expectations for their health provision into a context of rights and duties. It is about defining what one can expect, from whom, and in return for what. It is, therefore about seeing differences in those expectations and about seeing how universal standards emerge and are enforced. The relationship between individuals and health expectations and health provision seems, incredibly in the 21st century, to be a lottery of birth. Geographical and economic location, gender and race are all factors that produce difference in health expectations beyond simple genetics and chosen lifestyle factors. Globally, 'health' is a massive industry. Both health care as a service and pharmaceutical provision command enormous resources and a special place in political choices internationally. The implementation of health innovation, from lab to bedside, and in prevention and public health, is set against these backdrop issues.
In many ways, international and European health law is about 'medical mobility'. It is about the way that expectations are mobile between cultures and people; it is about the way that standards and harmonisations operate in opposition to those differences; it is about the ways that individuals can move either to practice medicine or to enjoy the benefits of health care; it is about the way that innovations in care and treatment can move between geographical places.

For more extensive information click this link: Electives Bachelor Medicine

Course objectives

International and European Health Law is a short course that explores some of the aspects of these relationships with health and the health industry. It is grounded in norms - on law and ethics - but it draws on multidisciplinary texts. In the four weeks of the course, we will examine the law relating to the following:
European Health Law. Central to European Union health law is the question of the competence of the European Union - that is to say, the power that the EU has to create law in relation to health. There are then specific legal instruments to discuss in relation to health law: the movement of professionals, the movement of patients; public health responses; health promotion.
International Health Law. International law is a matter of the agreements that States make between themselves in relation to specific purposes. We will consider the place of health in the human rights instruments, particularly the extent of the right to health care. We will consider the different aspects of 'global health', including access to pharmaceuticals.
The Basis of the Right to Health and the Foundation of MobilityUnderpinning the question of health provision at the international and European level are two fundamental issues: the construction of citizenship - the mooring of the individual's relationship to society; and the basis of solidarity - why, in a geographically-based, or territorially-based, citizenship do individuals and societies have duties that transcend borders, and what are the bases of the construction of these duties.

GEN2304
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- D.M.R. Townend

Teaching methods:
Assignment(s), Lecture(s), Work in subgroups, PBL
Assessment methods:
Assignment, Oral exam
Keywords:
European Health Law; International Health Law; Human Rights; Law; Ethics
Fac. Health, Medicine and Life Sciences

Fundamentals of Neuroscience

Full course description

There is a link to the programme 2.6 Translational Neuroscience. Registration for both is recommended. Fundamentals of neuroscience intends to extend your insights gained through fundamental research on brain structure and function to identify novel approaches for treating diseases of the central nervous system (CNS) and peripheral nervous system (PNS). This course will focus on the basic neuroscientific knowledge that the physician generally needs in order to deal intelligently and flexibly with the clinical problems she or he will face. Number of available places:

Bachelor Medicine

30

For more extensive information click this link: Electives Bachelor Medicine

GEN2305
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- M.P. Martinez Martinez

Fac. Health, Medicine and Life Sciences

Health & Development Challenges in Developing Countries: a Focus on HIV/AIDS

Full course description

Outline

This course critically focuses on health and development challenges in developing countries. Taking the HIV/AIDS crisis as our lens, we investigate inequalities and interdependencies on a global, international, national and local level, while considering the role of public, private and civil society actors. Why is it that the poor are primarily sick and dying of AIDS? Why does MSF (Doctors Without Borders) know how to solve the AIDS crisis, but does not get the necessary support to do so? It is our aim to understand the underlying development processes and unlock the ongoing debates. The course focuses on the following themes: HIV/AIDS, poverty, the Sustainable Development Goals (SDGs); colonialism and health; the role of actors of health development like, the WHO and UNAIDS; the relationship between human rights and access to medication; women and health; the influence of migration on health infrastructures; food, health and global crises like COVID-19.

Required knowledge

A good command of English is important.

Feedback

Students receive feedback during the conception and design of the development project and during the presentations.

Assessment

1. Take-home exam;
2. Skills assignment: subgroups design a health development project in the field of HIV/AIDS:
   - A project proposal;
   - A presentation;

Bachelor Medicine

3. Participation & Attendance

Ad1. The final take-home exam assesses command of the literature in the course: 3 open essay questions; students answer 2 with a 1500-2000 word limit (60% of the final grade);
Ad2. The project proposal has to be handed in on the Thursday of week 3 before 23.59 hrs (30% of the final grade);
Ad3. In week 3 students present the development project they designed (10% of their grade);
Ad4. According to criteria set by FHML.

Final assessment

Take-home exam

For more extensive information click this link: Electives Bachelor Medicine

Course objectives

- To understand and analyze challenges of health and development in developing countries.
- To connect issues of globalization, inequality, poverty, development, capabilities and health.
- To understand theories, concepts and historical roots of global social, political and economic inequalities.
- To gain knowledge of the main global and international actors and networks in the field of health and development, including their aim, reach and effectiveness.
- To gain knowledge about the intertwined nature of major contemporary global health issues and the interconnection between finances, climate change, food, energy and migration in the Global North and South.
- To learn skills necessary to write a health development project proposal

Recommended reading

Katie Willis (2021). Theories and Practices of Development. London: Routledge. (3rd edition: ISBN 9781138677548).

GEN2306
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- W.W. Nauta

Teaching methods:
Assignment(s), Lecture(s), Work in subgroups, Paper(s), PBL, Presentations
Assessment methods:
Assignment, Participation, Presentation, Take home exam
Keywords:
HIV/AIDS, NGOS, Poverty, Human Rights, inequality and globalization, gender and health, global

health, pharmaceutical companies.
Fac. Health, Medicine and Life Sciences

Exercise Physiology

Full course description

Various forms of exericse challenge the functions of our body. The fact that we usually cope well with those circumstances, sometimes under extreme conditions, shows that the body is capable of extensive adaptations. Studying of how our body handles exercise is an excellent way to understand the physiology as a whole. Moreover, the systems that allow us to perform well during exericse are the same that help us to survive diseases. Also, it is becoming increasingly clear that physical exercise is of primary importance for keeping a good health, such as preventing obesitas, diabetes, cardiovascular disease. Paradoxically, many physicians understand little about problems originating from exercise and dissuade often physical exercise in patients. This teaching block aims to study physiology of the human body until the most extreme situations and combine this with better appreciation of physical exercise by future physicians.

For more extensive information click this link: Electives Bachelor Medicine

Course objectives

Learning goals - anatomy, physiology, histology of the neuromuscular system - methods for studying force and velocity - aerobic vs. anaerobic metabolism - measurement of body composition - principles of various forms of exercise training - principles of testing force and velocity - effects of different forms of exercise training in health and disease - anatomy, physiology of respiration, ventilation and gas exchange and their regulation - abnormalities in ventilation and respiration in lung disease - consequences of staying at high altitude, in great depth; both acutely and chronically - effects of training on respiration, ventilation and gas exchange - constraints of exercise capacity by respiratory diseases - cardiovascular changes during exercise - cardiovascular changes due to exercise training - risks of exercise in cardiovascular diseases - exercise as treatment for cardiovascular diseases - fluid and salt management during exercise and heat - temperature regulation during exercise and ambient temperatures - effect ambient temperatures on exercise

Recommended reading

Literature and other reading material can be found in electronic block book.

GEN2307
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

Bachelor Medicine

- R.N.M. Cornelussen

Teaching methods:
Assignment(s), Lecture(s), PBL, Presentation(s), Skills, Work in subgroups
Assessment methods:
Presentation, Written exam
Keywords:
exercise; physiology; pathology; respiration; water and salt homeostasis; heat acclimatization; heart; training
Fac. Health, Medicine and Life Sciences

Patient-centric Precision Oncology

Full course description

Now-a-days, patients are put centrally in the plethora of treatment options and each case is discussed individually to increase treatment effectiveness, precision, survivability and quality of life. The best treatment for the patient is chosen in a multidisciplinary discussion based on guidelines and decision support systems (see for example th century, while chemotherapy, immunotherapy and newer targeted therapies are products from the 20thIncreased understanding of the underlying biological processes drives the evolutionary changes in cancer treatment. Already in ancient Egypt, surgical removal of tumors has been documented. First reports on hormonal and radiation therapy are from the late 19www.predictcancer.org or www.adjuvantonline.com). The choice of therapy (or therapy combinations) depends upon the location and grade of the tumor and the stage of the disease, indicating the importance of non-invasive imaging tools, as well as the general state of the patient (performance status) and his/her wishes.

The goal of cancer treatment is a complete removal of the cancer without damaging the rest of the body, i.e. achieving cure with near-zero adverse effects. For early stage cancers this can be accomplished by surgery. In general, effectiveness is only limited due to the propensity of cancers to invade adjacent tissue or to spread to distant sites by microscopic metastasis. Furthermore, other treatments such as chemotherapy, radiotherapy and immunotherapy can have negative effects on normal healthy cells. Therefore, cure with non-negligible adverse effects may be accepted as a practical goal in some cases. Besides curative intent, practical goals of therapy can also include (1) suppressing the cancer to a subclinical state and maintaining that state for years of good quality of life (that is, treating the cancer as a chronic disease), and (2) palliative care without curative intent (for advanced-stage metastatic cancers).

Number of available places: 36

For more extensive information click this link: Electives Bachelor Medicine

Course objectives

Main goal

To learn about all multidisciplinary aspects related to Precision Oncology

Learning goals

- To understand the workflow of a patient

Bachelor Medicine

- To have a clear view of the contribution of the different disciplines within oncology:

1. Surgery
2. Radiotherapy
3. Systemic therapy (targeted, hormonal, chemo and immunotherapy)
4. Imaging
5. Physics
6. Biology
7. Computer sciences
8. Shared Decision Making

Outline of the program

The different disciplines contain one or more of the following components

- tutorial
- lecture
- assignment
- practical
- skills lab
- self-study cases
- visits to for example imaging, radiotherapy and surgery facilities

International health themes (ITM major / minor)

- Major: Cancer
- Minor: Treatments, tumor biology, imaging, medical physics, Shared Decision Making.

Required knowledge

English, basic of anatomy, physiology and biology

Feedback

Teachers, assignments, exam

Way of assessment

Your learning will be assessed in the following ways:

1. Written exam at the end of the block. The written exam will test your knowledge on the topic acquired during lectures, cases, assignments, practicals, … The mark will be 70% of the total grade.
2. Group assignment practicum DNA repair to be delivered within one week after the practicum: 10% of the total grade
3. Individual assignment practicum image analysis to be delivered within one week after the practicum: 10% of the total grade
4. TNM assignment: 10% of the total grade

Final assessment

The assignments count for 30% and the written exam for 70%.
The final grade will be converted to an F/P/G with an F (fail) corresponds to a score of

Bachelor Medicine

A written re-exam will be provided upon a score of

Recommended reading

Verellen, Nature Reviews Cancer 2007 Aupérin, Journal of Clinical Oncology 2010 Van Elmpt, Radiother Oncol 2012 Van Elmpt, J Nucl Med 2012 Lambin P, Predicting outcomes in radiation oncology —multifactorial decision support systems, Nature reviews | Clinical Oncology 2012 De Ruysscher D, European Organization for Research and Treatment of Cancer Recommendations for Planning and Delivery of High-Dose, High-Precision Radiotherapy for Lung Cancer. Journal of Clinical Oncology. November 16, 2010

GEN2315
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- L.J. Dubois

Teaching methods:
Assignment(s), Lecture(s), Work in subgroups, Presentation(s), Onderwijspoli('s), Skills
Assessment methods:
Assignment, Attendance, Written exam, Presentation, Participation
Keywords:
Cancer and Radiotherapy Radiotherapy and oxygen Radiotherapy and immunotherapy agents Physics Advanced Imaging Brachytherapy Lung Cancer Linear accelerator, radiation, detection Dosimetry External Beam therapy Knowledge engineering oncology Palliative irradiation Patient safety Shared Decision Making
Fac. Health, Medicine and Life Sciences

Big Data, Al and Systems Medicine for Precision Diagnostics and Therapeutics

Full course description

For more extensive information click this link: Electives Bachelor Medicine

GEN2319
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:

Bachelor Medicine

English
Coordinator:

- H.H.H.W. Schmidt

Fac. Health, Medicine and Life Sciences

COVID-19

Full course description

For more extensive information click this link: Electives Bachelor Medicine

GEN2321
Period 3
3 Jan 2022
28 Jan 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- H.H.H.W. Schmidt

Fac. Health, Medicine and Life Sciences

Dutch Health Law

Full course description

Dutch Health Law and Health Ethics play an important part in setting the norms within which medicine is practiced. A study of the Dutch Law allows medical students the opportunity to explore the limits and opportunities that the Law places on their professional lives within the context of Dutch society. Health Law has been a part of the Faculty of Medicine since the creation of the Faculty. The Health Law group is now based in the Health, Ethics and Society department (Metamedica) in FHML and CAPHRI. It researches and teaches in the areas of traditional Medical Law (examining, for example, questions of patients rights, of medical professionals' duties, of the regulation of the profession, and of the rules concerning access to health care), and more interdisciplinary questions of Health Law (considering, for example, the regulation of the development and implementation of new technologies in health care, of Law's response to the health in society, the ethical construction of the Law, broader questions of the Law and nutrition and public health programmes and the rights of individuals to make life choices). Number of available places: 30

For more extensive information click this link: Electives Bachelor Medicine

GEN2604
Period 6
6 Jun 2022

Bachelor Medicine

1 Jul 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- D.M.R. Townend

Fac. Health, Medicine and Life Sciences

Infectious Diseases

Full course description

The importance and impact of infectious diseases is clearly demonstrated in the current COVID-19 pandemic. The different aspects of infectious diseases, like transmission, prevention, immune respons, diagnostics, treatment, epidemiology and pathogenesis are in the spotlight. Infectious diseases have always been an important cause of illness and death. Even in this century approximately a quarter of all deaths worldwide can be attributed to fatal infections. Because infections occur in all age groups and can affect all organs and tissues of the body, the study of these diseases is complex. The host's condition as well as factors pertaining to the microorganism, determine the course of the disease. In order to obtain an insight into infectious diseases in general, we chose to study a few representative infection types in this block. A study of these 'models' will provide students with a good basic knowledge of infectious diseases. The focus is on the clinical picture, causing microörganisms, microbiological diagnostics, antimicrobial treatment and epidemiology. The course is more focused on clinical practice than on pathogenesis. In the first 2 weeks of the block, bacterial infections will be studied, including antibiotic treatment, resistance and prevention of spread. The second half of the block will address viral, parasitic and fungal infections. This will be accomplished by means of clinical cases discussed in the tutorial groups, lectures, a workhop, a laboratory training and a quiz. In week 3, a conference will be organised and held by the participating medical students themselves. Depending on the situation regarding COVID-19, online alternatives will be organised.

For the final assessment, the written examination (60 multiple choice questions) accounts for 70% and the conference presentation for 30%. Due to COVID-19 it is possible that the examination will be held online and that open questions will be used instead of multiple choice questions.

Number of available places: 30

For more extensive information click this link: Electives Bachelor Medicine

Course objectives

- To gain insight into the classification of microörganisms and in the characteristics of microörganisms that are of importance for human beings.
- To understand the mechanisms that underlie the transmission and epidemiology of infectious diseases.
- To get insight in the problems of growing resistance of bacteria, and the efforts made to prevent spread

Bachelor Medicine

- To acquire knowledge about of a number of important infectious diseases
- To know the principles of microbial diagnostics.
- To know the principles of antimicrobial therapy.
- To acquire knowledge about antibiotic therapy
- To be aware of the importance of commensal flora, and to know the difference between colonization and infection
- To gain knowledge how to manage a hospitalized patient suspected of an infection.
- To be able to examine a current topic in the field of infectiology and to understand this subject either through recent articles or by means of a presentation by someone with expertise in the subject

Recommended reading

Basic microbiological and immunological knowledge as presented in previous blocks, especially 1.5 and 2.4.

GEN2608
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- H.A. van Dessel

Teaching methods:
Work in subgroups, Lecture(s), PBL, Presentation(s), Skills, Training(s)
Assessment methods:
Presentation, Written exam
Keywords:
Infection Infectious disease Antibiotic Isolation Surveillance Bacterium Virus Parasite Fungus Prevention
Fac. Health, Medicine and Life Sciences

Drugs in the Clinic: Every-day Challenges and New Developments in Evidence-based Therapy

Full course description

Drug therapy is of vital importance in modern clinical practice. 70% of what a medical doctor does in patient care is to prescribe a drug. Unfortunately, prescribing the optimal drug for the right patient at the right time is still not obvious and guidelines differ widely between different countries. However, there can only be one evidence. Inappropriate drug choice due to lack of knowledge of the prescribing physician, differences between populations or individuals, side effects of drugs, poor patient compliance and drug interactions may all contribute to suboptimal or even hazardous drug prescriptions. In this block the students will learn how factors such as those

mentioned here can determine the outcome of drug treatment and how they should be taken into account. This course will prepare students optimally for the clinical phase and practical challenges ahead. The course focuses on the most frequently prescribed drugs and/or most frequent disease phenotypes. In addition, the students will learn about novel trends and developments in modern pharmacotherapy. Number of available places: 30 For those students who would like to continue, in the subsequent months a voluntary small scale Pharma+ master class (8 students) is offered.

For more extensive information click this link: Electives Bachelor Medicine

Course objectives

1. Understand the origin of therapeutic guidelines
2. Understand therapeutic evidence
3. Be able to make drug choices based on patient specific criteria
4. Have thorough knowledge on the drug therapy in major disease areas
5. Have thorough knowledge about very frequently prescribed drugs
6. Learn to know new trends such as biologicals and theranostics

Recommended reading

Basic cardiovascular, pulmonary pharmacology; neuropharmacology (neurotransmitters)

GEN2610
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- H.H.H.W. Schmidt

Teaching methods:
Assignment(s), Work in subgroups, Lecture(s), PBL, Presentation(s)
Assessment methods:
Assignment, Attendance, Participation, Presentation, Written exam
Keywords:
guidelines, Evidence, patient-relevant outcomes, surrogate markers, biologicals, theranostics
Fac. Health, Medicine and Life Sciences

Translational Neuroscience

Full course description

There is a link to the programme 2.3 Fundamentals of Neuroscience. Registration for both is recommended. Translational neuroscience applies insights gained through fundamental research on brain structure and function to identify novel approaches for treating diseases of the central nervous

system (CNS) and peripheral nervous system (PNS). Therefore, requires continuous interaction between fundamental and clinical neuroscientists. This course will focus on translational neuroscience knowledge that the physician generally needs in order to deal intelligently and flexibly with the clinical problems she or he will face and enables them to go back and forth between the clinic and the laboratory. Number of available places: 30

For more extensive information click this link: Electives Bachelor Medicine

GEN2614
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- M.P. Martinez Martinez

Fac. Health, Medicine and Life Sciences

Personalized Medicine in Cancer Treatment and Care

Full course description

Cancer arises through sequential steps including activation of oncogenes and inactivation of tumor suppressor genes by genetic and epigenetic mechanisms (hallmarks of cancer). During solid cancer growth, tumor cells interact continuously with their normal non-malignant neighbors (microenvironment) and co-opt cells of the immune system, fibroblasts, endothelial cells etc. These interactions's both positively and negatively affect tumor growth and have a crucial role in tumor initiation and progression and influence therapy outcome. Genomic analyses of human tumors have shown these are genetically and phenotypically heterogeneous and that this heterogeneity underlies differential outcome and response between patients. The identification of this tumor heterogeneity has led to the development of individualized approaches directed against a subset of cancer cells with patient-specific characteristics (personalized medicine).

Using expert lectures, practical assignments, a journal club and through discussion of real world cases within tutor groups both basic and clinical aspect of personalized medicine will be discussed together with biologists and clinicians, thereby taking into account the latest developments within the field with a focus on treatments involving radiation therapy.

Other aspects of personalized medicine, which will be discussed, include the involvement of patients in decision making and new interactive methods to facilitate this shared decision making between physician and patient. Finally methodologies, which are used to determine how cost-effective a treatment is, will be discussed. These economical facts are increasingly important in our expensive healthcare system and provide challenging ethical considerations for our society.

Number of available places: 25

For more extensive information click this link: Electives Bachelor Medicine

Bachelor Medicine

Course objectives

1. Understand the concept of personalized medicine, how is it investigated and how it can be applied in cancer patients
2. Understand the genetic basis for cancer development and treatment response and the role of the tumor microenvironment therein.
3. Understand the concept and implications of shared decision making and economical analysis of healthcare decisions in (personalized) medicine

GEN2615
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- K.M.A. Rouschop

Teaching methods:
Work in subgroups, Lecture(s), PBL, Presentation(s), Skills, Working visit(s), Assignment(s), Paper(s)
Assessment methods:
Participation, Written exam, Assignment, Computer test
Keywords:
cancer; personalised treatment; microenvironment
Fac. Health, Medicine and Life Sciences

Gender and Diversity in Medicine

Full course description

Gender Medicine is a specialty at the forefront of medical research. Health issues related to sex and gender, however, are not systematically taught in regular medical curricula. This course will introduce students to the field of Gender Medicine and provide an overview of the most recent insights into sex and gender implications in medical fields such as cardiology, pharmacology, and mental health. Students will learn to understand how sex and gender and diversity are important factors in disease susceptibility, recognition of symptoms, presentation of symptoms, compliance with therapy, and coping with diseases. Please note that only students of the second year and above can enroll in the course.

For more extensive information click this link: Electives Bachelor Medicine

Course objectives

The aim of the module is to integrate gender medicine into medical education and research. Students will learn to grasp the fundamental principles and scientific standards of gender medicine in selected medical disciplines (specializations). Students will learn to understand the importance of taking sex, gender, and diversity aspects into consideration in medical treatment and research. They

will acquire an overview of fields of evidence-based medicine, where sex and gender aspects are already implemented. They will familiarize themselves with instruments of gender and sex differences in diagnosis and therapy with a view to implementing these in their future work as physicians or as biomedical researchers. Number of available places: 30

Recommended reading

Sabine Oertelt-Prigione and Vera Regitz-Zagrosek (eds) Sex and Gender Aspects in Clinical Medicine, 2012, Springer London. Gendered Innovations in Science, Health & Medicine, Engineering and Environment (2013) www.genderedinnovations.eu

GEN2316
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- M.T. Brancaccio

Teaching methods:
Assignment(s), Work in subgroups, Lecture(s), Paper(s), Presentation(s), Research, Training(s)
Assessment methods:
Assignment, Attendance, Final paper, Participation, Presentation
Keywords:
sex; gender; basic research; biomedicine; clinical practice; health; research; innovative methodologies
Fac. Health, Medicine and Life Sciences

Clinical and Therapeutic Aspects of Thrombosis

Full course description

Haemostasis, or the physiological formation of a blood clot to arrest bleeding, was briefly studied in block 1.2 of Medicine. The pathophysiological formation of a blood clot, the so-called thrombus, is worldwide the leading cause of death. The formation of a thrombus can occur in both arteries and veins with different outcomes. Arterial thrombosis may lead to development of ischemic heart disease (myocardial infarction) or stroke. According to the WHO, both diseases accounted for 15% of all deaths worldwide (15 million deaths in 2015). Understanding disease mechanism, (early)diagnosis, and anticoagulant treatment options are key in prevention of thrombosis. This teaching block aims in training of Medicine students in thrombosis pathology, involved mechanisms, relation to other diseases, anti-thrombotic therapy, as well as provide a basis for clinical routines.

For more extensive information click this link: Electives Bachelor Medicine

Bachelor Medicine

Course objectives

Haemostasis, platelets, coagulation, anti-thrombotic therapy, anti-platelet therapy, anti-coagulants, bleeding, arterial thrombosis, venous thrombosis, thrombosis service The Netherlands, laboratory assays and interpretation, patient care, genetics in coagulation, research in haemostasis.

Recommended reading

Versteeg HH, Heemskerk JW, Levi M, Reitsma PH. New fundamentals in hemostasis. Physiol Rev. 2013 Jan;93(1):327-58. Spronk HM, Govers-Riemslag JW, ten Cate H. The blood coagulation system as a molecular machine. Bioessays. 2003 Dec;25(12):1220-8. Review.

GEN2617
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- H.M.H. Spronk

Teaching methods:
Assignment(s), Lecture(s), Work in subgroups, PBL, Presentation(s), Skills
Assessment methods:
Assignment, Attendance, Observation, Oral exam, Participation
Keywords:
Thrombosis, Haemostasis, Coagulation, Platelets, antithrombotic management
Fac. Health, Medicine and Life Sciences

Public Health in International Context

Full course description

A look at questions of public health and health care from an international perspective reveals two basic realities: globalization and tradition. As the world globalizes, health threats and opportunities are also becoming more global. However, this trend coexists with a more traditional reality. Namely, as we look internationally, we see an enormous diversity in health status—and even in definitions of health and understandings of how it is best pursued—among the many cultures of the world.

This module is designed to give students insight into both basic realities, and hence the module's name: Public Health in International Context. In this module, we will explore how travel, migration, and climate change are giving rise to a new context in which infectious disease and other health threats are viewed. Further, we will consider the opportunities and barriers created by international cultural diversity for health care and public health activity.

The module covers four weeks and each week focuses on one particular theme. There are five set themes:1) Global health epidemiology and data sources, 2) transnational health governance and

development and 3) Mental health 4) Tobacco, and 5) Climate change. There is one open theme for which several seminar sessions will be organized together with and around the expertise of an international guest speaker who will visit us during the module.

In a group of approximately 6 students you will also conduct research mainly based on existing literature into one major public health problem at the international level (such as HIV/AIDS, malaria or tuberculosis). You will report the results of this analysis in a group paper.

Recommended reading

The basic literature that will be used in this module is: • Birn, A., Pillay, Y. and T. Holtz (2009). Textbook of International Health: Global Health in a Dynamic World. New York: Oxford University Press. • Buse, K., Mays, N., and G. Walt (2005). Making Health Policy. Maidenhead: Open University Press. • Detels, R., Gulliford, M., & Karim Q. A. (Eds.) (2015). Oxford Textbook of Global Public Health. Oxford: Oxford University Press. Additional literature will be provided for each task and will be made available through the Reference list.

PGZ2026
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
5.0
Instruction language:
English
Coordinator:

- S. Stutterheim

Teaching methods:
Work in subgroups, Lecture(s), PBL, Paper(s), Training(s)
Assessment methods:
Attendance, Final paper, Written exam
Fac. Health, Medicine and Life Sciences

Practical Skills Public Health in International Context

Full course description

The practical skills training includes three elements:

1. Training on the role of culture on health care and public health practice internationally. Culture and differences between (and within) cultures is an aspect interrelated with considering public health in an international perspective. In this training you will look at the important role of culture in defining how people define health and ill-health, as well as how they understand what determines health, what health related customs are and how health can therefore best be pursued. During this training you will work on an assignment around culture and cultural sensitivity of interventions and research in a group of six students. Findings will be presented in an oral presentation.
2. Training international collaboration. During this training you will learn about the facilitators

and barriers of working with different nationalities. This training will consist of a theoretical and a practical part. The theoretical part will inform you on challenges of working with team members from different nationalities and cultural backgrounds. In addition, you will learn more about the impact nationality and culture can have on collaboration in teams.

3. A field visit to a refugee center.

PGZ2226
Period 6
6 Jun 2022
1 Jul 2022
Print course description
ECTS credits:
1.0
Instruction language:
English
Coordinator:

- R.J.J. Elands

Teaching methods:
Assignment(s), Work in subgroups, Lecture(s), Working visit(s)
Assessment methods:
Attendance, Final paper, Presentation
Third year courses

Bachelor Medicine Year 3

Fac. Health, Medicine and Life Sciences

Abdomen

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN3001
Period 1
1 Sep 2021
22 Oct 2021
Period 2
8 Nov 2021
21 Jan 2022
Period 4
31 Jan 2022
15 Apr 2022
Period 5
18 Apr 2022
1 Jul 2022
Print course description

Bachelor Medicine

ECTS credits:
10.0
Instruction language:
Dutch
Coordinator:

- T. Lubbers

Fac. Health, Medicine and Life Sciences

Bewegingsapparaat

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN3002
Period 1
1 Sep 2021
22 Oct 2021
Period 2
8 Nov 2021
21 Jan 2022
Period 4
31 Jan 2022
15 Apr 2022
Period 5
18 Apr 2022
1 Jul 2022
Print course description
ECTS credits:
10.0
Instruction language:
Dutch
Coordinator:

- H.M. Staal

Fac. Health, Medicine and Life Sciences

Circulatie en Longen

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN3003

Bachelor Medicine

Period 1
8 Nov 2021
21 Jan 2022
Period 2
25 Oct 2021
17 Dec 2021
Period 4
31 Jan 2022
15 Apr 2022
Period 5
18 Apr 2022
1 Jul 2022
Print course description
ECTS credits:
10.0
Instruction language:
Dutch
Coordinator:

- J.H.H. van Laanen

Fac. Health, Medicine and Life Sciences

Psychomedische Problemen

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN3004
Period 1
1 Sep 2021
22 Oct 2021
Period 2
8 Nov 2021
21 Jan 2022
Period 4
31 Jan 2022
15 Apr 2022
Period 5
18 Apr 2022
1 Jul 2022
Print course description
ECTS credits:
10.0
Instruction language:
Dutch
Coordinator:

Bachelor Medicine

- M.J.A. Tijssen

Fac. Health, Medicine and Life Sciences

Schrijflijn Jaar 3

GEN3103
Year
1 Sep 2021
31 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
Dutch
Coordinator:

- R.A. de Bie

Fac. Health, Medicine and Life Sciences

Voortgangstentamen Jaar 3

GEN3005
Year
1 Sep 2021
31 Aug 2022
Print course description
ECTS credits:
4.0
Instruction language:
Dutch
Coordinator:

- B. Schutte

Fac. Health, Medicine and Life Sciences

Examen Klinische Vaardigheden

Full course description

This study programme is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN3008
Year
1 Sep 2021
31 Aug 2022
Print course description
ECTS credits:

Bachelor Medicine

0.0
Instruction language:
Dutch
Coordinator:

- F.J. Jongen - Hermus

Fac. Health, Medicine and Life Sciences

CORE Jaar 3

Full course description

This study programma is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN3009
Year
1 Sep 2021
31 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
Dutch
Coordinator:

- I.M.E. Caubergh - Sprenger

Fac. Health, Medicine and Life Sciences

Critical Appraisal of a Topic Jaar 3

Full course description

This study programme is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website.

GEN3013
Year
1 Sep 2021
31 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
Dutch
Coordinator:

Bachelor Medicine

- E.P.E. Mesters

Fac. Health, Medicine and Life Sciences

Gezondheidsrecht en Gezondheidsethiek

Full course description

This study programme is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website.

GEN3014
Year
1 Sep 2021
31 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
Dutch
Coordinator:

- R.H. Houtepen

Fac. Health, Medicine and Life Sciences

Farmacotherapeutische Vaardigheden Jaar 3

Full course description

This study programme is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website.

GEN3015
Year
1 Sep 2021
31 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
Dutch
Coordinator:

- B.J.A. Janssen

Fac. Health, Medicine and Life Sciences

Portfoliotentamen Jaar 3

Full course description

This study programme is taught in Dutch. Hence, the programme information is only available in Dutch. If you would like to read the Dutch programme information, please choose ‘NL’ at the top of the website

GEN3016
Year
1 Sep 2021
31 Aug 2022
Print course description
ECTS credits:
16.0
Instruction language:
Dutch
Coordinator:

- M.M. Verheggen

Fac. Health, Medicine and Life Sciences

Reflectie Portfolio / Professioneel Gedrag Jaar 3

GEN3017
Year
1 Sep 2021
31 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
Dutch
Coordinator:

- M.M. Verheggen

Bachelor International Track in Medicine (ITM) Year 3

Fac. Health, Medicine and Life Sciences

Abdomen

Full course description

The Abdomen cluster aims to deepen, broaden and integrate what the students have learned about abdominal complaints in previous years (e.g. Digestion and Defense). A large team has been working on this cluster over the past few years to achieve this aim. The team members are all still involved in

the cluster. You can find their roles in this the cluster on eleUM: Course Information -> Staff Information.

The guiding principle for the design of the curriculum for the Abdomen cluster, in which the patient and their clinical presentation is the starting point of learning, comprises of the seven competences/roles of a doctor as described in the 2009 Framework for Undergraduate Medical Education in the Netherlands. These competences/roles as well as the corresponding subsidiary competences with respect to the Abdomen cluster are discussed in Course Book -> introduction -> Chapter 1: Objectives.

This cluster covers abdominal complaints with a more or less chronic nature. The complaints are often related to the gastrointestinal system, the urological system and the reproductive systems. The students are confronted with a variety of clinical presentations, all related to the abdomen. These clinical presentations are the basis to study the physiological and pathophysiological processes that lead to chronic abdominal complaints in an integrated way. Moreover, patient contacts are used as a basis to study the generic aspects of the consequences of chronic disease, ethics and law and clinical epidemiology.

The heart of learning lies in the educational patient contacts, where the students, often in pairs, will see patient consultations at different (outpatient) departments. It is very stimulating for the students to see these patients in the specialist’s consultation room. Specialists of the MUMC departments of gynaecology/obstetrics, urology, gastroenterology, paediatrics, surgery, radiotherapy and dermatology open the doors to their consultation rooms to the 3rd-year students. Obviously, the student’s professional behaviour is essential in learning through educational patient contacts. Many activities have been organised to optimize the learning effect of these educational patient contacts, including training sessions in which the students can acquire more knowledge about (chronic) abdominal complaints and practise skills.

The cluster contains cluster-related as well as non-cluster-related activities.

Course objectives

Within 10 weeks, the students are trained to make a differential diagnosis of the most common abdominal complaints.

For these complaints the Sheffields list is used . The student practices both with patients and with fictitious case to take a medical history and perform a physical examination . As a framework for history taking , the VITMINE C + D system is applied. In addition, the anatomic relationships are taught between the location of the complaint and the organs in the abdomen. Subsequently, it is taught to make a differential diagnosis with the acquired information . Finally, the students learn the basics of additional research and therapy.

Recommended reading

see referencelist course Abdomen ITM3001 - Eleum

ITM3001
Period 1
1 Sep 2021
22 Oct 2021
Period 4

Bachelor Medicine

31 Jan 2022
15 Apr 2022
Period 5
4 Apr 2022
3 Jun 2022
Print course description
ECTS credits:
10.0
Instruction language:
English
Coordinator:

- S.O. Breukink

Teaching methods:
Assignment(s), Work in subgroups, Lecture(s), Patient contact, Onderwijspoli('s), Presentation(s), Skills, Training(s)
Assessment methods:
Assignment, Attendance, Observation, Oral exam, Participation, Presentation, Written exam, Portfolio
Keywords:
problem recognition/definition, history taking, physical examination, additional investigation, therapy
Fac. Health, Medicine and Life Sciences

Circulation and Lungs

Full course description

covers diseases of the blood, lungs, heart and blood vessels. The aim is to gain knowledge and develop skills in the areas of history taking and physical diagnostics, as well as making differential diagnoses within the area of the relevant diseases. Clinical epidemiology will also be covered. Circulation and LungsThe cluster During this cluster the focus will be on patient-based learning. The essence of this cluster is that learning from patient contacts will stimulate further examination into the pathologies that will be subsequently discussed in lectures and demonstrations (workshops) in a clinical setting.

The cluster comprises of 7 theme weeks: Angina pectoris / Atrial fibrillation, Heart failure, Peripheral vessels, Bleeding & coagulation disorders, Respiratory failure, Pulmonary diseases (among others malignant and interstitial lung disorders; pneumonia) and Cardiovascular risk management. The content of the theme weeks corresponds closely with that of the first two years of the bachelors, however, the emphasis now is on patient contacts and the integration of knowledge that you have already acquired in both general and specialist practice.

In each theme week, the above mentioned themes will be discussed using case-based assignments and discussions and patient contacts. The patient-based activities will be complemented by lectures, demonstrations and workshops about diagnostic and therapeutic issues. Each theme week will be rounded off with a discussion in the basic groups.

Bachelor Medicine

Course objectives

Ischemic Heart DiseaseElectrophysiologyHeart FailureCardiovascular diseasesCoagulation and Bleeding DisordersPulmonologyRespiratory FailureCardiovascular Risk ManagementHypertension

ITM3003
Period 1
1 Sep 2021
22 Oct 2021
Period 4
31 Jan 2022
15 Apr 2022
Print course description
ECTS credits:
10.0
Instruction language:
English
Coordinator:

- B.M.E. Mees

Teaching methods:
Assignment(s), Lecture(s), Work in subgroups, Patient contact, Paper(s), PBL, Onderwijspoli('s), Presentation(s), Research, Skills, Training(s), Working visit(s)
Assessment methods:
Assignment, Attendance, Observation, Oral exam, Participation, Portfolio, Presentation
Keywords:
Cardiology Cardiothoracic Surgery Pulmonology Vascular Surgery Vascular Medicine
Fac. Health, Medicine and Life Sciences

Locomotor Apparatus

Full course description

The cluster Locomotor Apparatus has been developed based on the seven competences of a doctor, as described in the (Dutch) Blueprint 2009: Medical Expert, Communicator, Collaborator, Leader, Health advocate, Scholar, Professional. The cluster Locomotor Apparatus aims to deepen, broaden and integrate knowledge and skills gained in the previous years.

The main goal of the cluster is to gain knowledge and skills to determine the most probable (differential) diagnosis in a patient presenting with a problem of the locomotor system. The problems may affect the musculoskeletal and/or nervous system, and may involve traumatic, degenerative, autoimmune, congenital, psychological, environmental and medico-ethical processes and factors. Other goals include knowledge and skills concerning therapeutic options (including eg medication and rehabilitation) and impact of a disorder on patients daily life (family, work, health care).

This goal is achieved by a variety of educational activities. Clinical presentation, relevant anatomy, pathophysiology, epidemiology, diagnostic aspects and treatment options of the relevant clinical disorders are studied by self-study (including repeating previous knowledge), base group presentations, lectures, trainings and practical skills trainings. Transition of theoretical knowledge to application in real patients is promoted by educational patient contacts. In these educational

patient contacts, the patient complaint is the point of departure, and clinical reasoning is practiced to arrive to a well-considered (differential) diagnosis. Patient cases are reported and discussed in the base group meetings so that all students benefit.

The nature of the cluster implies a great amount and variety of specialisations involved at the creation of the educational program and the educational patient contacts at the outpatient clinics.

Course objectives

Within 10 weeks students are trained in taking medical history and doing the physical examination in order to make a differential diagnosis, eventually with the help of additional examination such as X-ray. The student practices mainly with patients at the outpatient clinics. It is essential that students realize that patients with an assumed medical problem are sometimes initially referred to one medical specialty, and that the eventual diagnosis should be assessed and treated by another medical specialist. Therefore, they have to learn to think ‘outside the box’ and consider also other disorders or treatment options of other specialties. The most common disorders are described in the lists of objectives and problems.

Recommended reading

See reference list cluster Locomotor Apparatus, ITM3002 via My Studentportal

ITM3002
Period 2
8 Nov 2021
21 Jan 2022
Period 5
18 Apr 2022
1 Jul 2022
Print course description
ECTS credits:
10.0
Instruction language:
English
Coordinator:

- C.M.P. van Durme

Teaching methods:
Assignment(s), Work in subgroups, Lecture(s), Patient contact, PBL, Presentations, Onderwijspoli('s), Research, Training(s)
Assessment methods:
Assignment, Attendance, Observation, Participation, Presentation, Written exam, Portfolio
Keywords:
Movement and control of movement of the muskeloskeletal system
Fac. Health, Medicine and Life Sciences

Psychomedical Problems

Full course description

The Psychomedical Problems (PMP) cluster has been renewed in various areas in the 2013-2014 curriculum and has been refined in recent years. These innovations stem from the long-standing intention of the Department of Psychiatry & Neuropsychology to set up a psychiatry learning trajectory in curricular education at the FHML that runs as a continuum from the first academic year in the bachelor's degree up to and including the psychiatry new style in the master. In this continuum, the emphasis in the first two years of study is on the healthy psychological functions (eg. learning, memory, mood) and in the third year on the recognition of psychopathology of the most common psychiatric disorders. In addition, in year 3 there is ample attention for disruptions in neurobiological control systems and for the foundations of pharmacological and non-pharmacological treatments for psychiatric disorders.

The cases in the third year were developed with the intention to illustrate how disruptions in healthy brain functions (for example the reward system) can lead to specific symptomatology, which can be linked to psychological complaints (eg. anhedonia in depression or craving for addiction). The various lectures and practicals (including mental status examination, neuroanatomy) provide in-depth additions to these themes. Through the patient contacts in the clinical teaching outlets, students can practice the mental status examination and diagnostic skills with patients in psychiatric settings.

Course objectives

Mental Status Examination

Acquire knowledge and learn general psychiatric skills (including reporting) with special focus on mental status examination (MSE).

Several psychopathological phenomena are described in each task/case description. The aim is to learn and recognize these terms and to be able to apply them in conducting a Mental Status Examination during the EOC groups.

Bio-Psycho-Social model

Acquire knowledge of biological, psychological and social factors (according to the biopsychosocial model) that underlie the various psychiatric disorders, with a strong emphasis on basic neurobiological control systems and learning theoretical concepts with regard to psychological functions and the associated psychiatric symptomatology.

DSM 5 categories and terminology should be avoided as much as possible. The emphasis will be on basic psychological control systems (eg perception, affect regulation, anxiety, reward / learning, conditioning) and their neurological basis, starting with the neuroanatomical areas involved, their interconnections, neurotransmitter systems involved, possibly. neuropeptides and hormones.

Diagnostics and treatment (clinical reasoning)

Acquire knowledge of psychiatric epidemiology and clinical reasoning for the purpose of differential diagnosis and the pharmacological and non-pharmacological treatment of mental disorders.

From the understanding of these control systems it becomes useful to:

Discuss the impact of genetic and environmental factors on these control systems in a developmental

and lifetime perspective and the possible matching psychological dysfunction and psychopathology, ultimately leading to the possibility of drawing a descriptive diagnostic conclusion.

Discuss preventive and intervention strategies:

Discuss non-drug therapies with regard to the physiological / psychological dysfunctions involved, which form the basis of the case, including psycho-education, function-oriented treatment and the appropriate forms of psychotherapy; i.e. CBT, system therapy, client-centered and psychodynamic psychotherapy, i.e. in particular discussion of the psychological theories regarding complaints / symptoms.

Pharmacotherapy.

Discuss the social consequences of having a psychiatric disorder, such as: cooperation with police in care avoiders and drug policy in the Netherlands. In addition, a first introduction to mental health care in the Dutch healthcare system.

Recommended reading

Stahl S Stahl’s Essential Psychopharmacology 4th ed. Baer M Neuroscience, exploring the brain, 4th ed. Bak M. et al. The Psychiatric Interview ('VIG-boek').

ITM3004
Period 2
8 Nov 2021
21 Jan 2022
Period 5
18 Apr 2022
1 Jul 2022
Print course description
ECTS credits:
10.0
Instruction language:
English
Coordinator:

- A.A. Duits

Teaching methods:
Assignment(s), Work in subgroups, Lecture(s), Patient contact, Paper(s), PBL, Onderwijspoli('s), Presentation(s), Skills, Training(s)
Assessment methods:
Assignment, Attendance, Computer test, Final paper, Observation, Oral exam, Participation, Presentation, Written exam
Keywords:
Psychiatry, Psychology, Learning Theory, Neurobiology. Mental Status Examination, Stress Diathesis Model, psychopharmacology, psychotherapy
Fac. Health, Medicine and Life Sciences

Bachelor Medicine

Academic Writing Year 3

ITM3103
Year
1 Sep 2021
31 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
English
Coordinator:

- R.A. de Bie

Fac. Health, Medicine and Life Sciences

Progress Test Examination Year 3

Full course description

Starting in the academic year 2017-2018 progress tests for the International Medical Program will take place online (compared to the previous written tests). The IPT differs from the iVTG (the Dutch progress test) as it is shorter due to a technology used called computer-adaptive testing. As the test is taken by computer, students cannot take the test booklet home. Furthermore the IPT does not contain items related to Dutch laws, the Dutch code of ethics and the Dutch healthcare system and items have been added that are more suitable for international and internationally-oriented students. All references for the IPT test items are in the English language. The IPT has an IPT committee which takes care of the production, quality, analysis, and standards of the test, as well as the feedback to the students. The coordinator of the IPT has been appointed as examiner by the Board of Examiners. In addition to writing new and more internationally oriented test items, the IPT committee also checks items that are currently used for the test and rewrite them as needed. All items approved by the IPT committee are added to an item bank. The IPT committee consists of a chairperson (the coordinator, a psychometrics analysist in charge of standard setting and test analysis) and five members from the three cluster disciplines: core, clinical and behavioural modules. The international progress test (IPT) is an instrument to measure medical students' progress in knowledge during their studies and is therefore an assessment instrument in the competence domain of 'medical expert'. The progress exam consists of four progress tests per academic year.

Course objectives

The tests are compiled based on a blueprint indicating how many items from each sub-area should be included in the test. Sub-areas are created by crossing two item classifications (disciplines and categories). The test blueprint is similar to the iVTG blueprint (except for categories as described above) Each test contains 100 MCQ questions. There will be four of these tests per year and the combination regulations as described below (Progress Exam) apply across progress tests for judging the end result at the end of the year.

ITM3005

Bachelor Medicine

Year
1 Sep 2021
31 Aug 2022
Print course description
ECTS credits:
4.0
Instruction language:
English
Coordinator:

- B. Schutte

Assessment methods:
Computer test
Fac. Health, Medicine and Life Sciences

Programme Clinical Skills Year 3

Full course description

The Skillslab provides training sessions for medical students to learn the skills they need when working with patients. Approximately half of the training sessions concern physical examination skills, such as taking blood pressure or examining a knee, the other half are procedural (therapeutic) and laboratory skills, such as urinalysis.

Skillslab training sessions are organised for each block and are related to the block theme. The students register themselves for the training sessions or are allocated to a particular training. Each training session accommodates a group of ten students and is supervised by a skills teacher/doctor or sometimes (depending on the skill) an anatomy teacher or clinical expert.

The training sessions each last 1.5 hours, during which the students learn a particular skill. Each session starts with a short introduction after which the skill is demonstrated and/or the students practise the skill in pairs: one student examines the other. The teacher checks whether the skill is performed correctly and gives the students feedback.

Some skills are practised on models and manikins if the real situation cannot be simulated (resuscitation, for instance) or if practising on each other is undesirable for other reasons (gynaecological examination, for example).

The Skillslab has implemented programmatic assessment. Skills assessment consists of frequent feedback on the students' skills and monitoring individual progress. At the end of the bachelor's programme, the students take a skills test in which they are expected to show that their skills levels are sufficient to be admitted to the master's programme.

Recommended reading

Skills in Medicine (SIM) The skills training sessions at the Skillslab often refer to the "Skills in Medicine" series. This series of booklets describes the skills the students need to learn and provides useful illustrations of the skills. The booklets and video clips are also available online for students and teachers at the UM campus (and via a VPN client outside of the campus) at: http://www.vig-mu.nl. The Skillslab programme also often refers to the book Bates' Guide to Physical

Bachelor Medicine

Examination and History Taking. Fysische diagnostiek available on line and Praktische Vaardigheden becomes available online (both at this moment in Dutch).

ITM3009
Year
1 Sep 2021
31 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
English
Coordinator:

- F.J. Jongen - Hermus

Teaching methods:
Assignment(s), Patient contact, Skills, Training(s)
Assessment methods:
Assignment, Observation, Oral exam, Participation, Portfolio
Keywords:
Clinical Skills, Skills, Skills training, Skillslab
Fac. Health, Medicine and Life Sciences

Chronicity

ITM3007
Year
1 Sep 2021
31 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
English
Coordinator:

- E.G.M. Geelen

Teaching methods:
Assignment(s), Work in subgroups, Patient contact, Paper(s), Skills
Assessment methods:
Assignment, Attendance, Participation
Fac. Health, Medicine and Life Sciences

CORE Year 3

Full course description

In the third year students learn to conduct difficult encounters with patients (breaking bad news and communicating with a couple who disagree, and irritated of anxious patients). The simulated

patients present with slightly unpredictable cases. Simulated patients present the cases while students integrate their knowledge, preferred approach and attitude in consultations that run as smoothly as possible. The simulated patients provide tailor-made feedback after the consultation. Additionally the consultations are recorded on video. The students watch the recordings and two weeks later a feedback session takes place with a teacher. In this session they address the medical content, their 'approach' and possible ethical issues relevant for the case.

Course objectives

Intended learning objectives of the second-year CORE-programme:

- Being able to conduct a full doctor-patient encounter, as far as their knowledge allows
- Being able to break bad news in such a way that the patient understands an the news and feel this was done in an acceptable way
- Being able to deal with difficult communication contexts (breaking bad news and adequately addressing the reaction, dealing with irritated or anxious patient.

Being aware of the limitations in their knowledge, and being able to handle these limitations with regard to themselves and the (simulated) patient

Recommended reading

-Silverman J, Kurtz S, Draper J. Skills for communicating with patients. 2nd edition. Oxford: Radcliffe. 2005.

ITM3008
Year
1 Sep 2021
31 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
English
Coordinator:

- I.M.E. Caubergh - Sprenger

Teaching methods:
Work in subgroups
Assessment methods:
Attendance, Observation, Participation, Portfolio
Keywords:
communication skills, diagnostic skills
Fac. Health, Medicine and Life Sciences

Portfolio Examination Year 3

Full course description

Elaboration of learning objectives and plans of the 4 previously described competencies in years 1 and 2 (beginning of year 3 until Christmas).

- Introduction and analysis of a fifth competency (beginning of Year 3).
- Making at least 3 new experience cards during year 3
- The 'introduction' part from year 1 and 2 will be further developed in year 2 and 3 so that it takes more of a form of a future PDP.
- 360 degree feedback procedure in all 4 clusters from the coach group (feedback from coach, buddy student at the education clinic, 1 fellow student and 1 self-reflection). In each cluster, the professional competency and 1 other competency is evaluated.
- Start document with an analysis of the 7 competencies with learning objectives for 3 to 4 competences (ready at the end of year 3, start after Christmas). Start document will be made more specific at the beginning of the master once the first internship is known.

Course objectives

In the bachelor's phase, it was decided to guide students in their development into medical professionals from the start of their study programme, in the form of a portfolio that is based on and connected to the context of their study phase. This is an electronic portfolio in EPASS, which is combined with a mentor system.A portfolio in combination with a mentoring system is an instrument that can help the bachelor's student to:

- gain and maintain insight into the development of knowledge and skills (their own "growth curve") and to make timely adjustments where necessary
- learn in practice from experience and feedback and organise their own learning process;
- identify problems in and around the study at an early stage so that appropriate help can be sought in time and/or study delays can be prevented
- gradually learning to reflect on development from the perspective of competencies, in order to facilitate the transition to the master phase and the master portfolio;

ITM3010
Year
1 Sep 2021
31 Aug 2022
Print course description
ECTS credits:
16.0
Instruction language:
English
Coordinator:

- M.I. Kruithof

Teaching methods:
Assignment(s), Patient contact, Onderwijspoli('s), Skills
Assessment methods:
Assignment, Attendance, Participation, Portfolio
Fac. Health, Medicine and Life Sciences

Academic Skills

Full course description

Evidence Based Medicine (EBM) is one of the strings to the caregiver's bow to provide optimal care delivery. It is a tool to support clinical decisions.

Within the framework of the CAT (Critical Appraisal of a Topic) learning line, students are asked to formulate and answer a clinical question following a patient contact from practice, in which a dilemma regarding the care of that specific patient is central. In the successive clusters of year 3, the methodological themes Diagnostics, Prognostics, Therapy, and Follow-up are discussed. On the basis of the clinical question, a systematic literature search is carried out, in which the currently available "best evidence" must be sought, in order to be able to scientifically substantiate the answer to the clinical question and translate it back to the patient. In the first 3 periods of 10 weeks, students create both a group assignment (multi-CAT) and an individual assignment (solo CAT); in cluster 4, only a multi-CAT assignment needs to be created. The multi-CATs are presented and discussed in the education group and the students receive both oral and written feedback (standard form). Each solo CAT is assessed according to predetermined criteria; the final assessment is then carried out by means of a combination table.

Course objectives

Through the CAT training, medical students are trained to become critical consumers of scientific research results, which is important for direct patient care. In addition, cat education increases knowledge about the epidemiological background of scientific research, concerning these four methodological perspectives Diagnostics, Prognosis, Therapy, and Follow-up. At the same time, skills are trained during practicals such as; writing a good patient presentation, formulating an answerable clinical question, systematically searching for literature, critically assessing a scientific article, weighing evidence and applying evidence to the patient, and formulating a scientifically based answer to a clinical question.

Recommended reading

Amelsfoort van, L., Brouwer de, C., Gool, C., Kant, IJ., Mesters, I., Mommers, M. (Eds.) (2021). Critical appraisal of a topic. How to integrate patient characteristics and preferences with clinical expertise and external evidence. Publisher Maastricht University, Department of Epidemiology. Obtainable via https://www.msvpulse.nl/cat-boek/

ITM3011
Year
1 Sep 2021
31 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
English

Bachelor Medicine

Coordinator:

- E.P.E. Mesters

Keywords:
EBM, Diagnosis, prognosis, therapy, Follow-up, research design, methodological criteria
Fac. Health, Medicine and Life Sciences

Health Law and Health Ethics

Full course description

In each run we offer material on a theme and several subthemes. Students write a paper, in pairs, on the theme of the run and one of the subthemes. The papers are presented and discussed in a meeting that is tutored by the GRGE/HLHE-teacher that assesses the papers.

- Run 1: Medical confidentiality
- Run 2: Informed consent and shared decision making
- Run 3: Dealing with dilemma's raised by the covid-pandemic
- Run 4: Medical professionalism and the professional standard

Course objectives

- To provide students with basic information on and insight in health law and health ethics
- To promote critical thinking on professional norms and dilemma's

Recommended reading

Varies per theme, but always includes GMC guidelines.

ITM3014
Year
1 Sep 2021
31 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
English
Coordinator:

- R.H. Houtepen

Teaching methods:
Assignment(s), Lecture(s), Paper(s), PBL, Presentation(s)
Assessment methods:
Assignment, Attendance, Final paper, Participation, Presentation
Keywords:
- law - ethics - medical professionalism - professional norms
Fac. Health, Medicine and Life Sciences

Pharmacotherapeutic Skills Year 3

Full course description

In the Netherlands, doctors can choose from over 1500 different generic medicines (and a multitude of branded drugs) that are available on the market. A doctor makes use of approximately 50-150 medicines in his practice. Therefore it is important that a medical student needs to be trained how to select the most optimal medicine for the individual patient.

The department of Pharmacology & Toxicology coordinates the teaching activities on medication. In the bachelor phase students are trained to make rational pharmacotherapeutic choices, via a WHO approved 6-step method. These assignments will be made available via the e-learning program Pscribe (www.pscribe.eu) and help the student in building their personal formulary, a set of medicines with which the physician is very accustomed and can treat most of his patients.

In year 3 students will discuss cases derived from personal patient contacts. Students are also allowed to bring in cases from their own family (or other environment) as long as the patient has given his/her consent and cases are presented anonymously.

Course objectives

1. rational prescribing of medicines via the 6-step method
2. writing of scientific information on medicines
3. actual writing of a prescription

ITM3015
Year
1 Sep 2021
31 Aug 2022
Print course description
ECTS credits:
0.0
Instruction language:
English
Coordinator:

- B.J.A. Janssen

Teaching methods:
Assignment(s)
Assessment methods:
Assignment
Fac. Health, Medicine and Life Sciences

Reflection Portfolio / Professional Behaviour Year 3

ITM3017
Year
1 Sep 2021
31 Aug 2022
Print course description

Bachelor Medicine

ECTS credits:
0.0
Instruction language:
English
Coordinator:

- M.M. Verheggen