

Course Catalogue (ECTS)

For incoming exchange students at the Faculty of Medicine Model Degree Course Human Medicine

Before submitting your application please clarify with your coordinator at your home university which courses are relevant for recognition by your university.

The choice of courses will then be defined in the Learning Agreement between the student, the home university and the partner university.

Please note that the following subjects can only be chosen if you spend at least two semesters – a full academic year – in Cologne.

- Surgery
- Internal medicine
- Imaging procedures (Radiology)
- Emergency Medicine

It is not possible to complete these subjects in a single semester. It is also not possible to complete only separate parts of these subjects.

<u>Please note:</u> Since you can choose courses from 6 different clinical semesters, sometimes overlaps cannot be avoided. As each timetable is individually designed, we make sure that the block practicals for the selected courses do not overlap. Lectures might overlap, but lecture contents are usually uploaded in ILIAS.

You will find an overview of the subjects and the corresponding ECTS credits on the following pages.

1 teaching hour = 45 min.

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| Anaesthesiology | | | | | | |
|-----------------|--|--|----------------------------|--|---|--|
| Coc | le | Credits | Study Semes | ster | Duration | |
| FB | 2 | 3 | 9th semester | | one semester | |
| 1 | Courses | | Workload | Number of | Self-study | |
| | a) Lecture | (VL) | 90h | hours | 64h Preparation and follow-up of | |
| | b) Internsh | ip (P) | | a) 2411 b) 2b | VL, exam preparation | |
| 2 | Content | | | 6) 211 | | |
| 2 | Lecture: | | | | | |
| 3 | Lecture: Introduction / Basics and history of anae Sedatives / analgesics / muscle relaxan Securing the airways / anaesthetic induction (inhalation) anaesthetics Maintenance of anaesthesia / respiration Local anaesthetics / local and regional at Preliminary examinations / education / p Volume replacement / catecholamines / Haemodynamic monitoring / anaesthesia Recovery room / Post-operative pain the Paediatric anaesthesia Anaesthesiology as perioperative medic Internship: a) Full-Scale Simulation (METI) b) Observership in OR | | | e relaxants etic induction / in espiration / bloo regional anaesth cation / premedi amines / therap naesthesia mana e pain therapy ve medicine | ntubation / od gas analysis nesia ication y with blood products agement in risk patients | |
| | Lecture; Int | ernship | | | | |
| 4 | Forms of examination training. Wr | xamination n prerequisi ritten examir | tes: Regular at nation. | ttendance of lec | tures and practical | |

| Oco | Occupational Medicine, Social Medicine | | | | | | |
|-----|---|--------------|---|--|---|--|--|
| Coo | le | Credits | Study Semes | ter | Duration | | |
| FB | 3 | 2 | 10th semester | ſ | one semester | | |
| 1 | Courses a) Lecture (| VL) | Workload 60hNumber of hoursa) 15h | | Self-study 45h Preparation and follow-up of VL, exam preparation | | |
| 2 | Content | | | | | | |
| | 2 Content Lecture: Introduction to occupational medicine, social Selected work-related illnesses and occupati The chronically ill at work and the basics of rest Mental stress and strain at work Physical stress and strain at work Health protection in hospitals and medical presence of the occupational and occupational skin diseases accidents at work: Detect, treat and prevent Loads and stresses in the chemical industry Ergonomics Night and shift work: facts and perspectives | | | medicine onal diseases habilitation octices | | | |
| 3 | Teaching m | ethods | | | | | |
| | Lecture | | | | | | |
| 4 | Forms of ex | kamination | | | | | |
| | Examination | n prerequisi | ites: Regular at | ttendance of lectu | ure. | | |
| | Written examination (duration: 1 hour). | | | | | | |

| Ophthalmology | | | | | | | | |
|---------------|--|---------------------------------|---|-------------|-------------|------------------------------------|--|--|
| Cod | de | Credits | Study Semester | | | Duration | | |
| FB 4 2 | | 2 | 5th semester | | | one semester | | |
| 1 | Courses | | Workload Number of | | | Self-study | | |
| | a) Lecture | (VL) | 60h | nours | | 12h Preparation and follow-up of | | |
| | b) Practica | l Training | | a) 1 | 8h | VL, BP and exam preparation | | |
| | including | g seminar | | b) 3 | 80h | | | |
| 2 | Content | | | | | | | |
| | Lecture | | | | | | | |
| | Acute | e macular de | generation (AM | ID) | | | | |
| | retina | al amotio, reti | nal function and | d loss of t | function | | | |
| | • conju | nctiva, sclera | a, retina, eye st | ructure | | | | |
| | Sicca Diabe | etic retinopat | hy and retinal y | ascular d | liseases | | | |
| | Struc | ture of vitreo | us body, refrac | tion, myo | pia, hype | eropia | | |
| | Optic | nerve, disea | ises and tumors | s, pituitar | y tumor | | | |
| | Glau | coma, catara | ct, lens luxatior | n, aphakia | а | | | |
| | Visua Short | I field failures | s (scotomas) | | | | | |
| | evelic | d. orbit. lacrin | nal duct | | | | | |
| | Macu | lopathies, re | inopathies and visual impairment | | | | | |
| | Neure | opthalmology | , including strabismus paralyticus, paralysis of the eye, visual path | | | | | |
| | disor | ders, pupillor seis or myast | iotor disorders, nystagmus, tumors, orbital diseases, multiple | | | | | |
| | Opht | halmological | oncology (retinoblastoma, choroidal melanoma, iris | | | | | |
| | mela | noma, ciliary | body melanoma, conjunctival papillomas etc.) | | | | | |
| | Strab | ismus | | | | | | |
| | Uveit | is | | | | | | |
| | Intornahin | | | | | | | |
| | • Takin | ig the ophtha | Imological ana | mnesis | | | | |
| | Visua | al inspection | with reading card and projector | | | | | |
| | Basic | principles of | spherical refraction, demonstration autorefractor | | | | | |
| | • Orien | iting visual fie | ald test billomotor function (direct, consensual, swinging flashlight test) | | | | | |
| | Asse | ssment of the | e motility of the | bulb, ass | signment | of the eye muscles | | |
| | to the | directions o | fmovement | - | ~ | | | |
| | inspe | ction of the e | eyelids, includin | ig ectropi | ionating (| criterion of success) | | |
| | • inspe mvdr | iasis | eye with the har | na opnina | aimoscop | be melouing rundus examination IN | | |
| | Creat | tion of a fund | us drawing with | n vascula | r outlets | of the papilla (success criterion) | | |
| | Demo | onstration of | eye examinatio | on using a | a slit lamp | o, including funduscopy | | |
| 3 | • Demo | ethods | a conometry me | ernoa | | | | |
| | Lecture [.] Pr | actical Trair | ning en bloc | | | | | |
| | | | | | | | | |
| 4 | Forms of e | xamination | | | | | | |
| | Examinatio | n prerequisit | tes: Regular at | tendance | e of lectu | ures and practical | | |
| | training. Wi | ritten examir | nation. | | | | | |

| Imaging Procedures | | | | | | | |
|--------------------|---------------------------|-----------------|------------------------------|-------------|---------------|---------------------------------------|--|
| Code Credits | | Credits | Study Semester | | | Duration | |
| QB 1 ⁻ | QB 11 7,5 | | 7th and 9th se | mester | | 2 semesters | |
| 1 0 | | | Workload | Numb | or of | Solf study | |
| | Jourses | () (I) | workioau | hours | | | |
| a | a) Lecture | (VL) | 225 h | a) | 29h | 1/4h Preparation and follow- | |
| b |) Internsh | ip (P) | | (L) | 106 | preparation | |
| c | c) Seminal | - (S) | | (0 | 120 | preparation | |
| | | | | c) | 10h | | |
| 2 0 | Content | | | | | | |
| L | <u>_ecture</u> | | | | | | |
| | <u>Meth</u> | ods and tech | nology in radio | <u>logy</u> | | | |
| С | omponents | and function | ning of an X-ray | tube, l | now X-rays | are produced, image quality and | |
| do | ose (influen | cing factors) | , soft tissue rad | liograp | hy / mamm | nography, significance of | |
| CO | omputed to | mography (C | T), Hounsfield | units, n | nagnetic re | esonance imaging (MRI) and the | |
| 11 | ndiodraphy | (DSA) | s, Doppier elle | ci, sono | byrapny ba | | |
| | ngiography | | | | | | |
| | Contr | ast media in | radiology | | | | |
| In | dications fo | or the use of | X-ray contrast | media, | use of con | trast media containing iodine, risks | |
| aı | nd side effe | cts of the fre | quently used c | ontrast | media con | taining iodine, use of MRI contrast | |
| m | nedia, contra | ast media for | sonography, a | cquisit | ion times a | fter bolus administration of contrast | |
| m | iedia, risk fa | actors for cor | ntrast-induced r | nephrop | bathy, basi | c knowledge of nephrogenic | |
| sy | ystemic libr | osis (INSF) a | no measures ic | reduc | erisk | | |
| | Thora | acic radiology | / | | | | |
| В | ronchopne | umogram, air | ⁻ sickle sign, de | ep sulo | us sign, ra | diological presentation of typical | |
| fo | oreign mate | rial on X-ray | examinations (| endotra | acheal tube | e, central venous catheters, | |
| st | tomach tube | es, pacemak | ers and defibrill | lators), | pleural eff | usion on X-ray examinations, | |
| te | ension pneu | mothorax, ty | pical and atypic | cal pne | umonic inf | iltrates, presentation of | |
| e | mphysema, | presentation | n of bronchial c | arcinor | nas and lui | ng metastases | |
| | Cardi | ovascular ra | dioloay | | | | |
| Р | resentation | of congenita | al and acquired | heart c | lefects in X | -ray examinations, differentiation | |
| of | f radiologica | al presentatio | on and causes o | of hear | t enlargem | ent, including valve diseases and | |
| pe | ericardial di | seases, pres | entation of vas | cular o | cclusions, | stenoses and thromboses, | |
| di | iagnostic pr | ocedure for i | schemic (cardi | ac) dise | eases, kno | wledge of the normal dimensions | |
| 01 | t the aorta a | and the class | ification of aort | ic aneu | rysms and | dissections | |
| | | uloskeletal ra | adiology | | | | |
| ĸ | nowledge c | of the muscul | oskeletal svste | m in X- | rav examir | nations. | |
| C | T/MRI, typi | cal X-ray find | lings in the cas | e of tra | umatic cha | anges to the skeleton | |
| (e | e.g. fracture | s, dislocatior | ns), understand | ing the | typical X-r | ay findings in degenerative | |
| cł | hanges of t | ne skeleton (| e.g. arthrosis), | X-ray f | indings in i | nfections and inflammations, | |
| m | netabolic dis | seases and fi | requent bone tu | umors | | | |
| | Abdo | minal radiolo | av | | | | |
| ĸ | nowledge c | of the normal | anatomy of the | e abdor | ninal organ | and the gastrointestinal tract in | |
| | -ray and flu | oroscopic ex | aminations. CT | , sono | graphy and | MRI, radiological findings in the | |
| a | cute abdom | en, perforati | on, bleeding, in | flamma | ation/infect | ion, obstruction/ileus, and | |
| is | chemia, rad | diological find | lings in colorec | tal tum | ors, diverti | culitis and inflammatory bowel | |
| di | iseases (ind | cluding Crohr | n's disease and | ulcera | tive colitis) | , in primary and secondary tumors | |
| 01 | i the abdom | inal organs | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | 6 | |

Urogenital radiology

Understanding of the use of contrast media in renal failure, knowledge of the typical radiological findings of the most common diseases of the kidney and the urinary tract, knowledge of the typical radiological findings of the most common diseases of the prostate and the testicles

• <u>Gynecological radiology</u>

Understanding of changes in the organs of the female pelvis over the course of life, knowledge of radiological findings of tumors of the female pelvis, understanding of the typical radiological findings in the case of frequent diseases in pregnancy/conception, knowledge of radiation protection methods for the female pelvis during CT and X-ray examinations, image morphological presentation of frequent benign and malignant diseases of the breast, basic knowledge of breast sonography and breast MRI

Neuroradiology

Anatomy of the brain, calotte and skull base, as well as the spinal column and spinal canal in CT and MRT, changes in ischemic and hemorrhagic stroke in CT and MRT, radiological findings in case of injuries, inflammation or tumors of the brain and spinal column

ENT Radiology

Anatomy of the head and neck region in x-ray and fluoroscopic examinations, sonography, CT and MRT, basic knowledge of frequent radiological findings in traumatic and inflammatory diseases of the skull base, nose, paranasal sinuses, oral cavity, pharynx, larynx and thyroid, basic knowledge of the typical image morphology of frequent tumors of Base of the skull, nose, paranasal sinuses, oral cavity, pharynx, larynx and thyroid gland

<u>Children's radiology</u>

Understanding of the significance and indications for ultrasound, X-ray, CT and MRT examinations in children and adolescents, understanding of the increased sensitivity of children and adolescents to ionising

radiation and knowledge on the special importance of radiation protection in children, basic knowledge of the typical radiological findings in accidental and non-accidental injuries in children

Fields of competence

- Thyroid gland
- Venous thrombosis and pulmonary embolism
- Arterial vascular diseases

| Teaching methods |
|--|
| Lecture; KF with lectures, practical course and seminar |
| |
| Forms of examination |
| Examination prerequisites: Regular attendance of lectures and internships. |
| Written examination. |
| |

| Su | rgery | | | | |
|-----------|--|---|---|---|---|
| Coo FB | de 5 | Credits 10 | Study Seme 6th and 9th s | ster emester | Duration 2 semesters |
| 1 | a) Lecture | e (VL) . seminar | Workload 300 h | Number of hours a) 66h b) 60h | Self-study 174h Preparation and follow- up of VL, BP and exam preparation |
| 2 | Content Lecture General an Ceneral an Lead Acut Trau Herr Beni Carc Stor Carc Stor Carc Stor Perid Cho Pand Beni Colc Beni Colc Beni Carc Acut Pand Adre | d visceral su ding sympton te abdomen imatized abdomen imatized abdomen ign diseases ign diseases cinomas of the nach cancer ohageal can racic surgery operative ma ledocholithia creatic surgery operatic ma ledocholithia creatic carci ign diseases on, rectal can ign tumors of gnant tumor opplantation gery of the tha athyroid glan enal disease | urgery: ms domen s of the oesopha s of the stomach he gastrointestin cer / anagement asis, cholecystiti noma s of the intestine rcinoma of the liver s of the liver, liv hyroid gland id s | agus nal tract is | |
| | Basi caro Arm Ren Visc Arte Resi Vario Cardiac/thoo extra Coro Infar Surg Aort Mitra | cs of vascul tid artery enia o-vascular d eral ischemi rial occlusive tenosis cosis <u>racic surger</u> acorporeal c onary bypas rct complicat gery of the th ic valve surg al valve surg | ar surgery liseases a e disease <u>Y:</u> irculation - myo s surgery ions ioracic aorta an jery ery | cardial protection d the aortic arch | |

• Cardiac assistance systems

- Cardiac rhythm surgery, pacemaker
- Thoracic organ transplantation
- Congenital heart defects without

Shunt trauma <u>surgery</u>:

- Shock room supply (ABCDE), damage control, shock room team
- Forms of fracture healing, fracture classification, osteosynthesis methods
- Neurological deficits, structure/scope of movement segments WS, classification Weber, Magerl, OP ventral/dorsal, cross-section with functional height
- Arm: Ligament instabilities, Allen test, N. radialis/ulnaris etc., Tinel test, Ski thumb, distal radius fractures, humeral shaft fractures
- Shoulder: joints, Rockwood 1 5, clavicula fractures, OTA classification, impingement syndrome, proximal humerus fractures
- Elbows: Art. Humeroulnaris and humeroradialis, ligamentous apparatus, high energy low energy impact, dislocation, Y-break, Blount loop, Kirschner wire, Galeazzi injury
- Cervical spine: Atlas fracture/Gehweiler classification, dens axis fractures, screw osteosynthesis according to Böhler, stabilization according to Magerl, corpus fractures HWK 2
- Lower extremity: hip luxation, femoral head fracture, proximal femur fracture, Pauwels/Garden classification, therapy options (conservative, dynamic hip screw, gamma nail, hip TEP)

Practical Trainings:

Visceral Surgery

- > Patient anamnesis and examination
- Surgical diagnostics
- Basics of oncological surgery
- Surgical techniques (open laparoscopic)
- Case Studies
- Visit: Central -OP
- > Patient presentation with frequent surgical clinical pictures
- Documentation of anamnesis, physical examination findings and work diagnosis

Vascular Surgery

- > Fundamentals of vascular-surgical-angiological anamnesis and examination
- Vascular-surgical-angiological examination techniques
- Presentation and referral of patients
- Case discussion (clinic, diagnostics, therapy) including angio- and computer tomographic image evaluation
- Vascular surgery and angiology outpatient clinic
- Vascular surgery ward
- Vascular surgery operating theatre (room 4)
- Documentation of anamnesis, physical examination findings and work diagnosis

Cardiothoracic surgery

- > Design and function of the heart-lung machine as an essential
- Part of heart surgery operations
- > Synoptic evaluation of the physical and apparatus
- Examination findings
 - Discussion of the indication for surgery
 - Preoperative risk stratification
 - Operational strategy
- Presentation and referral of patients

| | | Physical examination and anamnesis and demonstration of accompanying |
|---|------------------|--|
| | \triangleright | Examination findings |
| | | - Coronary angio- and laevocardiography |
| | | - Vascular Doppler |
| | | - ECG (long-term, exercise ECG) |
| | | - Phlebography |
| | | - Theography, |
| | | |
| | | - Nuclear medical and magnetic resonance findings |
| | | - Pulmonary function test |
| | \triangleright | Visit to specialist intensive care unit with discussion and demonstration of |
| | | post-operative therapy modalities |
| | | - Interpretation and evaluation of relevant haemodynamic parameters |
| | | - Adequate volume substitution and electrolyte balancing |
| | | - Types of ventilation and standard correction of acid-base status disorders |
| | ~ | Desumentation of enemnesis, physical exemination findings |
| | | Documentation of anaminesis, physical examination induligs |
| | Traum | a Surgery |
| | Haum | |
| | Part 1. | |
| | | Bedside teaching |
| | - | Anamnesis Patient |
| | | evamination Case |
| | | presentation |
| | Δ | Analysis of accident surgery radiological imaging |
| | | Propertation of X row image |
| | | Presentation Or A-ray Image |
| | | Temegraphy Other Imaging |
| | ~ | |
| | | |
| | | |
| | | |
| | | limb vacuum mattress |
| | - | Immobilisation by means of plaster splint |
| | Part 2: | |
| | | Bedside teaching |
| | | Anamnesis of a multiple injured |
| | | person Case presentation |
| | | Presentation of the rescue chain |
| | \succ | Visit to the trauma surgery operating theatre |
| | | Indications for osteosyntheses Intraoperative |
| | | reduction techniques |
| | \triangleright | Polytrauma Management |
| | | Rescue Chain |
| | | Air/ground transport Shock room |
| | | management |
| | | Simulation of the initial treatment of polytraumatised patients |
| | | |
| 3 | Teach | ing methods |
| | Lectu | re; BP with seminar on surgical wards |
| | | |
| 4 | Form | s of examination |
| | Fxam | ination prerequisites. Regular attendance of lectures and internships |
| | | n exemination |
| | vvritte | ก ยังสากกาสแบก. |

| Dermatology, Venerology | | | | | | | |
|-------------------------|--|---|--|---|---|--|--|
| Coo FB | 1e 6 | Credits 4 | Study Semes 7th semester | ter | Duration one semester | | |
| 1 | Courses | | Workload | Number of | Self-study | | |
| | a) Lecture | (VL) | 120h | hours | 70h Preparation and follow-up of | | |
| | b) Practica | l Training | | a) 15h | VL, BP and exam preparation | | |
| | including | g seminar | | b) 35h | | | |
| 2 | Content | | | | | | |
| | Lecture | | | | | | |
| | • Stru | cture of the s | kin (epidermis, | dermis, cell type | es) | | |
| | Basi | c dermatolog | gical terms (efflo | prescences) | | | |
| | Phle | bology, wou | nd healing diso | rders | | | |
| | Chro | nic venous i | nsufficiency | ma danaraenosi | Im | | |
| | Colla | adenoses, al | itoimmune dise | ases | | | |
| | • Lupi | us erythemat | osus, dermator | nyositis, polymy | ositis, Sjögren's syndrome, | | |
| | over | lap syndrom | e, scleroderma | | | | |
| | • psor | iasis, inflamr | natory skin dise | eases | | | |
| | Aller | aies immun | reactions according to Coombs & Gell tests | | | | |
| | Sign | s of atopy (A | opic dermatitis) | | | | |
| | Infection | ctious diseas | s of the skin | | | | |
| | Hum Myca fung Trep | an papilloma obacterium tr oides), vario oonema pallic | a viruses, infect uberculosae, m us human herpo dum, mites | ions with parvov ycoses (dermato es viruses, Stap | virus B19, herpes viruses, ophytes, moulds, fungi) (≠Mycosis hylococcus aureus, streptococci, | | |
| | • Erys | ipelas | . , | | | | |
| | • Ium squa | ors of the sk amous cell ca | n (epidermal nevus, cysts, verruca seborrhoica, basalioma, rcinoma. Merkel cell carcinoma) | | | | |
| | Prec | anceroses: r | relanoma in situ, actinic keratosis, Bowen's disease | | | | |
| | Bullo cont | ous dermatos agiosa) | ses (pemphigus | s vulgaris, bullou | s pemphogoid, impetigo | | |
| | <u>Internship</u> | | | | | | |
| | • Writte | en epicrisis (| example patien | t) | | | |
| | Atten | dance in the | OR | | | | |
| | Partic | cipation in vis | sits | | | | |
| | Perfc | ormance of a | llergy (prick) tes | st | | | |
| | Sewi | ng course | | | | | |
| | • Exan | ninations in p | olyclinic/outpat | ients | | | |
| 3 | Teaching m Lecture; Pr | iethods actical Traii | ning, Written e | picrisis | | | |
| 4 | Forms of e | xamination | | | | | |
| | Examinatio | n prerequisi | tes: Regular at | tendance of lec | tures and practical | | |
| | training. W | ritten examir | nation. | | | | |

| Ері | Epidemiology, Medical biometrics & Medical informatics | | | | | | |
|--------------|---|--------------|------------------|--------------------|------------------------------|--|--|
| Code Credits | | Study Semes | ster | Duration | | | |
| QB | 1 | 5,5 | 5th semester | | one semester | | |
| | | | | | | | |
| 1 | Courses | | Workload | Number of | Self-study | | |
| | a) Lecture | (VL) | 165 h | | 118h Preparation and follow- | | |
| | b) Semina | r (S) | | a) 27n | up of VL, seminar and exam | | |
| | | | | b) 20h | preparation | | |
| 2 | Content | | | • | | | |
| | 2 Content Lecture Medical Informatics Evidence-based medicine, health services research Clinical trials 1+2 Epidemiology Analysis of time-to-event data Estimating and testing Diagnostic procedures Calculation of Probability Introduction, Descriptive Statistics 1 Descriptive statistics 2 Seminar: Different seminar dates during the semester (see Homepage of Institute) Fields of competence Clinical studies Heart Failure & CHD Allergic diseases | | | | | | |
| 3 | Teaching m | nethods | | | | | |
| | Lecture, se | minar, KF | with lectures | | | | |
| 4 | Forms of e | xamination | | | | | |
| | Examinatio | n prerequisi | ites: Regular pa | articipation in le | ectures and seminars. | | |
| | Final examination: Written examination. | | | | | | |

| Gyı | naecology, (| Obstetrics | | | |
|--------------|---|---|--|--|---|
| Code Credits | | Study Semes | ter | Duration | |
| FB | 7 | 4 | 7th semester | | one semester |
| 1 | Courses | | Workload | Number of | Self-study |
| | a) Lecture | (VL) | 120h | | 64h Preparation and follow-up of |
| | b) Internsh | ip (BP) | | a) 24n | VL, BP and exam preparation |
| - | • • • • | | | b) 32h | |
| 2 | Content | | | | |
| | <u>Lecture</u> | | | | |
| | Cycle mens intern | e and bleedin trual bleedin nediate bleed | g disorders (pa g, possibly with ding) | in during menstru the following and | ation, excessive aemia and irondeficiency, |
| | Fertili | ity and contra | aception | | |
| | • Horm | ones (LH, F | SH, oestrogens | , progesterone) | |
| | Birth: | procedure, s | situation anoma | lies, surveillance | , emergencies |
| | Myon | nas | | | |
| | Patho | ologies in pre | gnancy - Pre-e | clampsia | |
| | Pregr | nancy care | | | |
| | Benig | n gynaecolo | gical diseases: | Endometriosis | |
| | Ultras | sound in prer | natal care and p | prenatal medicine | |
| | Incon | tinence | | | |
| | Infect | ions of the v | ulva, vagina, ce | ervix, urinary tract | and ascending infections |
| | Infect | ions during p | pregnancy and | birth (diaplacenta | l, congenital) |
| | • Sexua | ally transmitt | ed, parasitic inf | ections, infection | s after tropical travel, in HIV |
| | Endo carcir | metrial carcin noma, cervica | noma, ovarian o al carcinoma | carcinoma, vulva/ | vaginal carcinoma, breast |
| | Repre | oductive med | licine and fertili | ty treatment | |
| | | | | | |
| 3 | Teaching m | ethods | | | |
| | Lecture; Pr | actical train | ing en bloc | | |
| 4 | Forms of ea | xamination | | | |
| | Examinatio | n prerequisit | es: Regular at | tendance of lect | ures and practical |
| | training. Wr | ritten examir | nation. | | |

| Ear, Nose and Throat Medicine | | | | | | | |
|-------------------------------|--|------------------------------|------------------------|----------------------|--------------|------------------------------------|--|
| Code Credits | | Study Semester | | | Duration | | |
| FB | 17 | 2 | 8th semester | | | one semester | |
| | | | | | | | |
| 1 | Courses | - | Workload | Numb | er of | Self-study | |
| | a) Lecture | (VL) | 60h | hours | | 19h Preparation and follow-up of | |
| | b) Practica | A Training | | a) | 12h | VL, BP and exam preparation | |
| | includin | a seminar | | b) | 29h | | |
| | (BP) | 9 | | , | | | |
| 2 | Content | | | | | | |
| | Lecture | | | | | | |
| | | | | | | | |
| | Anate | omy middle e | ear - inner ear | | | en ele el el estadio un estar c | |
| | | ch audiomet | niques: tuning i rv | ork lest, | sound thi | resnoid audiometry, | |
| | Imag | ina techniau | es of the ear | | | | |
| | malformal | ormations of | the outer ear. A | postasis | s Otis. GG | atresia | |
| | Zoste | er oticus | | | , | | |
| | Otitis | externa | | | | | |
| | • DD C | Dtalgia: inflan | nmation of the a | auditory | canal - mi | ddle ear inflammation (Diagnosis - | |
| | Thera | apy) | | - | | | |
| | • DD e | ardrum perfo | oration | | | | |
| | Chole | esteatoma (o | definition, sympt | toms, the | erapy, cor | nplications) | |
| | Mast | oiditis (diagn | iosis, symptoms | s, therap | y, complic | cations) | |
| | Sero | mucotympar | ium, paracentes | sis and t | ympanic t | ube insert | |
| | Coch | lear Implant | | | otooloro | | |
| | Cocn | iear and retro | | ng ioss, dan daal | oloscieros | SIS | |
| | INUISE Fract | tures of the r | aring ioss, suud | uen uea | 111655 | | |
| | Fraction Fraction | emiology | | | | | |
| | Caus | ses noxae F | IPV | | | | |
| | Symplexity | ptoms, DD: s | welling of the th | nroat, ne | eck metast | tasis | |
| | Loca | lisations, CU | IP and staging | , | | | |
| | Diag | nostics, pane | endoscopy, ima | ging | | | |
| | There | apy modalitie | es, monomodal | vs. mult | imodal, tra | ansoral laser surgery vs. open | |
| | surge | ery, radiology | y, chemo | | | | |
| | Reco | onstruction | | | | | |
| | Fore | cast | | | | | |
| | Keha | adilitation | | | | | |
| | | n of the voice | _aryrix 9 | | | | |
| | Defir | nition Dvenho | onia | | | | |
| | • Exam | nination tech | niques in larvno | aoloav a | nd their si | anificance | |
| | Cause | ses of a voice | e disorder and it | ts treatm | nent | | |
| | Saliv | ary glands (I | ocation, functio | n, exam | ination, di | seases) | |
| | Sjögl | ren's disease | e, mumps | | , | | |
| | Saliv | ary gland tur | mors and their s | surgery | | | |
| | Chro | nic sialadeni | tis and sialolithi | asis | | | |
| | • N. fa | cialis (course | e, function, pare | esis) | | | |
| | • facia | I proportions | , aesthetic units | s of the f | ace, facia | I skin tension lines | |
| | Rhin | oplasty | d lobulus start | _ | | | |
| | Anth Anth Anth | elixplasty an | u lobulus plastic | ن | | | |
| | | naropiasly emotice of flo | an eculaturae dr | nnortant | t flan soulr | otures of the face | |
| | Syste Syste Eorm | ernation of hearing | ip sculptures, ir | nportani | uctive and | sensorineural bearing | |
| | loss: | retrocochlea | ar and central he | earing in | npairment | a sensormeural nearnig | |
| | • orien | iting hearing | tests: Tuning fo | orked tst | s (Weber, | Rinne) and hearing range testing | |

| | Sound audiometry (in children: reflex, behavioural, play audiometry) and speech audiometry, hearing aid fitting objective hearing tests: impedance audiometry, OAEs, AEPs, TEOAEs, newborn hearing screening Indications, function and fitting success of hearing aids (hearing aids, cochlear implants) Anatomy of the nasal and paranasal sinuses Disturbances in the shape of the inner and outer nose: septum deviation, crooked nose Diagnosis of the nose: Rhinoscopy, endoscopy, rhinomanometry, olfactometry Rhinitis: Allergic, chronic, acute Operative therapies of the outer and inner nose Anatomy, Diagnostics: Imaging, Sonography+ FNAC, Probe biopsy Etiology, diagnostics and therapy of median and lateral neck cysts / fistulas inflammation, fasciitis, lymphadenitis colli, specific inflammation Benign and malignant tumors, metastases and their therapy (neck dissection) Swallowing, rigid and flexible esophagoscopy, Zenker diverticulum, tracheotomy, coniotomy Anatomy, Waldey's pharyngeal ring, examination of oral cavity, naso-, oro-, hypopharynx, larynx Pharyngeal tonsil hyperplasia, adenotomy, tonsillectomy Nasopharyngeal fibroma, nasopharyngeal carcinoma acute and chronic tonsillitis, mononucleosis, peri- and retrotonsillar abscess Head and neck malignancies, risk factors, staging, overview TNM stage, basic therapeutic strategies: oropharyngeal, hypopharyngeal and laryngeal carcinomas |
|---|--|
| 3 | Teaching methods Lecture; seminar and practical training en bloc |
| 4 | Forms of examination Examination prerequisites: Regular attendance and active participation in practical training. Final examination: Written examination (duration: 1 hour). |

| Hu | man Geneti | cs | | | | | | |
|--------|---|--|---|--|--|--|--|--|
| Coc | de | Credits | Study Semes | ter | Duration | | | |
| FB 9 3 | | 3 | 7th semester | | one semester | | | |
| 1 | 0 | | | Number | | | | |
| 1 | Courses | <i>a</i> . <i>a</i> . \ | workload | hours | Self-study | | | |
| | a) Lecture | (VL) | 90 h | a) 18h | 62h Preparation and follow-up of | | | |
| | b) Semina | r (S) | | b) 10h | preparation | | | |
| 2 | Contont | | | | | | | |
| 2 | Looturo | | | | | | | |
| | <u>Lecture</u> | rtance of hur | nan denetics in | medicine basics | of genetics, human | | | |
| | geno | me project, t | ypes of mutatio | ns | or genetics, numari | | | |
| | - geno | type/phenoty | pe, pleiomorph | ism, variability an | nd variants, de novomutations, | | | |
| | chror | nosome abei | rrations, DNA re | epair | | | | |
| | - Menc | lel's theory o | f inheritance, m | nultifactorial inheri | itance, pedigree analysis, Hardy | | | |
| | Wein | berg | | | | | | |
| | - gel e | lectrophoresi | s, PCR, microa | rrays, DNA seque | | | | |
| | - Autos Gonc | somale num | per Chromoson | ial aberrations (1) s (Klinefelter Trir | ris. 21, 18, 13), ble X. Ulrich Turner) | | | |
| | Struc | tural chromiu | um.aberrations | (cri du chat, Willia | ams Beuren, | | | |
| | micro | deletions) | | | | | | |
| | - Cong | enital maitor | mations (neural tube defects, heart defects) (U, hemochromatosis) lies, skeletal dysplasias n, mucovicidosis, Rett syndrome, Marfan syndrome | | | | | |
| | - Musc | ular dystropi | | | | | | |
| | - Chor | ea Huntingto | | | | | | |
| | - Terat | ogenicity, he | reditary tumors | ; | | | | |
| | Seminar1) Molecular GeneticsApply inheritance modes forwards and backwards (draft pedigree and derive inheritance mode from pedigree); illustrate special cases/terms of Mendel's inheritance modes by pedigree; calculate a priori probabilities (heterozygote frequency, risk of recurrence) for | | | | | | | |
| | 5 | | , | | | | | |
| | 2) <u>Advice</u> Diagnostic potentials of new technologies (e.g. array-CGH); dealing with unclear or random findings in families/couples seeking advice; family tree; determining inheritance including reduced penetrance and variable expressiveness; anticipation or dynamic mutations; recommendations for predictive diagnostics with regard to therapeutic consequences and psychological stress | | | | | | | |
| | 3) <u>Dysmorphology</u> Recognising patterns of structural peculiarities; minor and major anomalies; causes of congenital malformations (sporadic/family, exogenous vs. endogenous, isolated vs. syndromal); syndrome, sequence, association - definition; macrosomy; microdeletion syndrome; Angelmann syndrome | | | | | | | |
| | 4) <u>Cytoo</u> Practical pro cytogenetic. phenotypic s | <u>genetics</u> cedure of a c Define meth- pectrum of a | sytogenetic examination order, significance of different results ods; explain inheritance of microdeletion syndromes; define the microdel. 5p15.2 and 22q11.3 | | ignificance of different results deletion syndromes; define the | | | |
| 3 | Teaching m | ethods | | | | | | |
| | Lecture; se | minars with | example cas | es | | | | |

| 4 | Forms of examination |
|---|---|
| | Examination prerequisites: Regular attendance of lectures and seminars. |
| | Written examination. |

| Hygiene, Microbiology, Virology | | | | | | | | |
|---------------------------------|---|---------------------|-----------------------------|------------------|------------------------------|--|--|--|
| Coc FB | le 10 | Credits 6 | Study Semes 6th semester | ter | Duration one semester | | | |
| 1 | Courses | | Workload | Number of | Self-study | | | |
| | a) Lecture | (VL) | 180h | hours | 116h Preparation and follow- | | | |
| | b) Internsh | nip (P) | | a) 30h | up of VL, P and exam | | | |
| | | | | b) 34h | preparation | | | |
| 2 | Content | | | | | | | |
| | Lecture: | | | | | | | |
| | Lecture: Influenza Viruses (structure, classification), respiratory viruses (influenza, rhinovirus, adenovirus, Boca virus), retroviruses (delta retrovirus, lentivirus), herpes viruses, papillomaviruses, measles, mumps, hepatoviruses, adenoviruses Systemic infections with viremia Rubella / Parvovirus B19 Rabies / viral zoonoses (Hanta, rabies, Ebola, Zika), parasitology (Chagas, sleeping sickness, malaria) Papillomaviruses HIV and other retroviruses, syphilis, lues connata, borreliosis, leptospirosis Viral gastrointestinal infections (cholera, salmonella, clostridia, noro viruses, rota, picona viruses, shigella, EHEC) Herpes viruses / CMV Gram-negative cocci: Neisseries Gram-negative cocci: staphylococci, streptococci Gram-negative cods Basics of antibacterial therapy I+II Gram-negative rods Spirochetes: Treponema, Borrelia Obligate intracellular bacteria Infectious agents in immunocompromised patients Mycology I+II Gastrointestinal infections Gram-positive rods: spore formers - Bacillus, Clostridium | | | | | | | |
| | Internship: Bacterial infections, culture breeding, Gram stains, basics of therapies/antibiotics, resistances Sepsis, bacteremia, qSOFA and SOFA scores, menigitis Obligate cell parasites (Alphaproteobacteria, Gammaproteobacteria, Chlamydia, Legionella, Rickettsia, Listeria, Coxiella) fungi (yeasts, dermatophytes, moulds), antimycotics Parasitology (worm diseases and their therapy) | | | | | | | |
| 3 | Teaching m | nethods | | | | | | |
| | Lecture; pr | actical cou | rse in microbio | logy (microsc | opy and teaching classes) | | | |
| 4 | Forms of e | xamination | | | | | | |
| | Examinatio | n prerequis | ites: Regular pa | articipation and | dactive | | | |
| | involvement in the internship. Written examination. | | | | | | | |

| Infe | Infectiology & Immunology | | | | | | | |
|----------------|---|------------------|-----------------------|------------------|----------------------------------|--|--|--|
| Coc | de | Credits | Study Semes | ter | Duration | | | |
| QB 4 | | 3,5 | 7th and 10th semester | | 2 semesters | | | |
| | _ | | | | | | | |
| 1 | Courses | | Workload | Number of | Self-study | | | |
| | a) Lecture (| (VL) | 105h | nours | 52h Preparation and follow-up of | | | |
| | | | | a) 53n | VL and exam preparation | | | |
| | _ | | | | | | | |
| 2 | Content | | | | | | | |
| | <u>Lecture</u> | | | | | | | |
| | Infectiology | | | | | | | |
| | • (Uro | -)Sepsis | | | | | | |
| | • End | ocarditis | | | | | | |
| | Pnei | umonia | | | | | | |
| | GFIf Antil | niections | | | | | | |
| | Skin | and soft tiss | ue infections | | | | | |
| | Viral | infections of | f the skin and m | ucous membrane | es | | | |
| | • Men | ingitis | | | | | | |
| | STIs | 5 | | | | | | |
| | • Tube | erculosis | | | | | | |
| | | | | | | | | |
| | | /. Autonomous | | | | | | |
| | Inna | te immunity | minumy | | | | | |
| | Antic | pen presenta | tion | | | | | |
| | Cellu | ular immunit | / | | | | | |
| | • Hum | oral immunit | , ty | | | | | |
| | Auto | immune dise | eases | | | | | |
| | Fields of a | mnotonoo | | | | | | |
| | | | and Transferst | | | | | |
| | • Trar | isplantation | and Transfusio | DN | | | | |
| | Rheumatology | | | | | | | |
| Fever & Sepsis | | | | | | | | |
| | | | | | | | | |
| 3 | 3 Teaching methods | | | | | | | |
| | Lecture; KF with lectures | | | | | | | |
| 4 | Forms of e | xamination | | | | | | |
| | Examinatio | n prerequisi | tes: Regular at | tendance of lect | ures. | | | |
| | 2 written examinations. | | | | | | | |

| CodeCreditsFB 1112 | | Study Seme | ster | Duration | | | | |
|--------------------|------------------------------|--------------------------------|--|---|--|--|--|--|
| | | 6th semester | | two semesters | | | | |
| 1 | Courses | | Workload | Number of | Self-study | | | |
| | a) Lecture | e (V/L) | 360h | hours | 230h preparation and follow- | | | |
| | h) Practic | al Training | | a) 60h | up of VL, BP and exam | | | |
| | includir | ng seminar | | b) 70h (50h | preparation | | | |
| | (BP) | - | | internship, | | | | |
| | | | | seminar) | | | | |
|) | Content | | - | · · · · · · · · · · · · · · · · · · · | ł | | | |
| | Lecture: | | | | | | | |
| | Haematolo | gy and infe | ctiology | | | | | |
| | Agranulocyt | osis, anaem | ia, haemoglobir | nopathies, malignan | t lymphomas, multiple myeloma, M. | | | |
| | Waldenströ | n, amyloido | ses, myelodysp | lastic syndromes, m | yeloproliferative diseases, acute | | | |
| | leukaemias, | chronic lym | phatic leukaem | ias, haemorrhagic d | iatheses, meningitis/CNS infections, | | | |
| | opportunisti | c infections | (toxoplasmosis) | , sexually transmitte | ed infections/HIV, fungal infections | | | |
| | (candida, as | spergillus, P | CP), viral infecti | ons (influenza, herp | es viruses), bacterial infections (St. | | | |
| | fever), canc | er of unknov | vn primary (CUI |), travel infections (i | malana, dengue lever, typhold | | | |
| | ,, | | | , | | | | |
| | Endocrinol | ogy | | | | | | |
| | Diabetes mo | ellitus type 1/ | 2, Secondary di | abetes mellitus, Ges | stational diabetes, Insulinoma, | | | |
| | Cusning's s Hyperthyroi | ynarome, Ac dism. Hynotl | enal cortex insufficiency, Pheochromocytoma, Hyperaldosteronism, | | | | | |
| | adenoma P | Pituitary insut | fficiency Hyperi | siency. Hyperparathyroidism. Hypogonadism. Hyperandrogenemia. | | | | |
| | Lipometabo | lic disorders | , Osteoporosis | | ogenaalem, riyperanarogenemia, | | | |
| | | | | | | | | |
| | Cardiology | and pneum | nology | ronori ovndromo (i | natable angine nactoria, beartattaal | | | |
| , | Stable corol | nary neart di t ST elevatio | sease, acute co | oronary syndrome (L Vthmia (tachycardia) | Instable angina pectoris, neartattack | | | |
| | failure, pulm | ionarv oede | ma and shock. | arterial hypertension | i. orthostatic hypotension and | | | |
| | syncope, ac | ute/chronic | cor pulmonale, | cardiomyopathy (pri | mary/secondary), Endocarditis, | | | |
| | Myocarditis, | Acquired a | nd congenital he | eart valve defects, D | Diseases of the thoracic aorta, | | | |
| | Functional h | eart compla | ints, Immunolog | gical heart diseases | , Inflammatory lung diseases, | | | |
| | Chronic obs | tructive bror | nchopneumopat | hy, Bronchial asthm | a, Immunological lung diseases, | | | |
| | Malignant IL | ing diseases | 5 | | | | | |
| | Gastroente | rology | | | | | | |
| | Gastro-oeso | ophageal ref | lux disease, oes | sophageal motility di | isorders, oesophageal cancer, | | | |
| | gastritis, vei | ntricular and | duodenal ulcer | s, gastric tumors, in | fectious intestinal diseases, | | | |
| | chronic obs | tructive pulm | ionary disease i | nflammatory bowel | diseases, sprue, intestinal | | | |
| | ischaemia, (disoasos, bi | diverticulosis | s including comp | plications, colon can | cer, functional gastrointestinal | | | |
| | dallstone di | sease, bile d | uct tumors, par | creatitis, pancreatic | tumors | | | |
| | | , u | , poi | , | | | | |
| | Nephrology | / | · · · / • · · · · | | | | | |
| | kenal anato failure com | omy and phy | siology (Tiltration | 1, sait transport, urir sufficiency (sec. HE | ie concentration), acute renal 27. renal anaemia), dialveis therapy | | | |
| | | | | | , , ona anaonna, aaryoo arorapy, | | | |

nephrotic syndrome, oedema diseases and diuretic therapy, nephritic syndrome, IgA nephropathy, systemic lupus erythematosus, lupus nephritis, rapid progressive glomerulonephritis, M. Wegener's, Goodpasture's syndrome, diabetic nephropathy, cystic kidneys, ADPKD, hyponatremia, hypernatremia, hypercalcemia, hypokalemia, potassium balance regulation, arterial hypertension, metabolic acidosis/alkalosis, mixed acid-base disorders, urinary tract infection and pyelonephritis

| | Rheumatology Rheumatoid arthritis, spondyloarthritis / ankylosing spondylitis (M. Bechterew), Psoriatic Arthritis, Reactive Arthritis, Septic / Infectious Arthritis, Crystalline Arthropathy / Arthritis urica, Osteoarthritis, Systemic Lupus Erythematosus (SLE), Systemic Sclerosis (Scleroderma), Dermatomyositis/polymyositis, mixed collagenosis (Sharp syndrome, MCTD), Sjögren's syndrome, polymyalgia rheumatica, arteritis cranialis (giant cell arteritis), granulomatous polyangiitis (M.Wegener's), microscopic polyangiitis, panarteritis nodosa, Churg-Strauss syndrome, Still's adult disease (Still syndrome), antiphospholipid syndrome Practical Training: Short discussion/post-discussion of the previous day (including questions from the seminars) Distribution of students in groups of two: |
|---|---|
| | The groups are assigned either to a patient or to different examination areas. In this case, the lecturer visits all students in turn and introduces them. Procedure on the ward (exemplary): |
| | Students are given sufficient time to take a complete anamnesis. The physical examination is carried out together with the lecturer. All internal examination techniques are performed under supervision. This is followed by a specific discussion of the patient's clinical picture: |
| | in the 5th clinical semester with emphasis on symptoms and diagnostics in the 5th clinical semester with emphasis on symptoms, diagnostics and therapy. A clinical picture of the patient is used as an example for the internal procedure (heart failure, diabetes, diarrhoea, etc.). |
| | Present later in the group (daily topic). Students should learn the following internal medicine examinations: |
| | Heart: Palpation of the apex of the heart, auscultation (percussion) Lungs: inspection, palpation (incl. vocal fremitus), auscultation (incl. bronchophony), percussion |
| | Abdomen: inspection, auscultation, palpation (liver, spleen, kidneys, aorta) Lymph node stations |
| | Extremities: pulses on arms and legs, palpation and auscultation, palpation of edema, inspection of varicosis, identification of polyneuropathy |
| 3 | Teaching methods |
| | Lecture; seminar and practical trainings en bloc. |
| 4 | Forms of examination |
| | participation in internship dates |
| | Final examination: Written examination (duration: 1 hour). |

| Peo | liatrics | | | | | | |
|-----|--|-----------------------------------|-------------------------------------|-----------------------|---|--|--|
| Coc | ode Credits | | Study Semes | ter | Duration | | |
| FB | 12 | 4 | 7th semester | | one semester | | |
| | | | | | | | |
| 1 | Courses | | Workload | Number of | Self-study | | |
| | a) Lecture | (VL) | 120h | hours | 50h preparation and follow-up of | | |
| | b) Practica | Training | | a) 30h | VL, BP and exam preparation | | |
| | including | g seminar | | b) 40h | | | |
| | (BP) | | | | | | |
| 2 | Content | | | | - | | |
| | Lecture: | | | | | | |
| | General Pae | diatrics | | | | | |
| | Psychosocial | l developme | nt, infectious di | seases, meningi | tis | | |
| | 5 | | | | | | |
| | Neonatology | | | | | | |
| | Physiol. Deve | elopment in | the newborn pe | eriod, nutrition N | G, breast milk nutrition, definition | | |
| | AGA, SGA, L regulation in | GA, premai | ure birth, Apgai | r criteria, ietai cir | culation conversion, temperature | | |
| | exanthema | anneas bra | i, priysiological dvcardia cvano | sis in the newbo | rn asnhyxia hirth iniuries | | |
| | cephalhemat | oma, clavicl | e fracture, plexi | us paralvsis, per | sistent. Ductus Botalli, fetal | | |
| | circulation, n | eonatal infe | ction and sepsis | , encephalopath | y of the NG, intraventricular | | |
| | hemorrhage, | periventricu | ılar leukomalaci | a, bronchopulmo | onary dysplasia, Premature infant | | |
| | retinopathy, e | early childho | od hearing disc | orders, diabetic f | etopathy, cleft lip and palate, trisomy | | |
| | 21, SIDS, atr | esia of the g | gastrointestinal | tract, meconium | ileus, connatal infections | | |
| | Infectious dis | eases of ch | ildren | | | | |
| | Measles, Sc | arlet fever, | Rubella, Chic | kenpox, Pertuss | sis, Mononucleosis, Exanthema | | |
| | subitum, Up | per respirate | ory tract infecti | on, Otitis media | , Scabies, Lyme disease, TBE, | | |
| | Orbital phleg | mon, Appen | dicitis, Gastroer | nteritis, Stomatitis | s aphthosa, Contagious impetigo | | |
| | Dedictric Fre | | | | | | |
| | Pediatric End | <u>aocrinology</u> am growth (| dicturbonoco bio | a arouth short | growth pubortos procev/ | | |
| | Typolityroldi: tarda adrend | onenital svn | drome | gri growth, short | growin, pubertas precox/ | | |
| | | gormar oyn | | | | | |
| | Children's me | etabolic dise | ases | | | | |
| | Diabetes me | llitus, obesit | y, phenylketonu | iria, galactosemi | a, fructose intolerance, | | |
| | storage disea | ases | | | | | |
| | Pediatric Car | diology | | | | | |
| | Heart failure | Heart defer | cts.with L_R.shu | nt Heart defects | with R-L shunt Cyanosis | | |
| | Congenital h | eart defects | without shunt | Endocarditis hvp | ertonus (aortic isthmus stenosis) | | |
| | Complex hea | art defects | without offant, i | | | | |
| | | | | | | | |
| | Pediatric pne | eumology/ -a | llergology | | | | |
| | bronchial ast | hma, atopic | dermatitis, urtic | aria, cystic fibro | sis, foreign body aspiration, | | |
| | dyspnoea, ps | seudocroup, | epiglottitis, bro | nchitis, pneumor | nia, food allergy, anaphylaxis | | |
| | Childron's immunology/rhoumatology | | | | | | |
| | Purpura Schönlein-Henoch Kawasaki syndrome congenital immune defects juvenile | | | | | | |
| | rheumatoid arthritis | | | | | | |
| | | | | | | | |
| | Pediatric Gas | stroenterolo | av | | | | |
| | M Hirschsprung's disease, pyloric hypertrophy, invagination, gastro-oesophageal reflux, celiac | | | | | | |
| | disease | | | | | | |
| | Paediatric N/ | phrology | | | | | |
| | Urinarv tract | infections. v | resicoureteral re | flux, hvdronephr | osis, glomerulonephritis. nephrotic | | |
| | syndrome, ha | aemolytic-ur | emic syndrome | , chronic renal in | sufficiency, Kidney transplantation, | | |
| | acute kidney failure, cystic kidney disease | | | | | | |

| | <u>Pediatric Oncology</u> Neuroblastoma, Childhood brain tumors, Microcytic anaemia, Haemolytic anaemia, Hodgin's lymphoma, Sickle cell disease, Haemoglobinopathies, Malignant bone tumors in children, Sickle cell disease, Haemoglobinopathies, Wilms tumor |
|---|---|
| | <u>Neuropaediatrics</u> Milestones in child development, developmental disorder, infantile cerebral palsy, childhood epilepsy, febrile seizures, meningitis, meningism, herpesencephalitis, hydrocephalus, neural tube defects, facial paresis, spinal muscular atrophy, muscular dystrophies |
| | <u>Pediatric Surgery</u> Paediatric surgery in the abdomen, urogenital tract <u>Dentistry</u> Introduction to pediatric dentistry |
| 3 | Teaching methods Lecture; practical training en bloc and seminar |
| 4 | Forms of examination Examination prerequisites: Regular attendance of lectures and active participation in practical training. Oral examination. |

| Clir | nical chemi | stry | | | | | |
|------|---|--|--|--|---|--|--|
| Coc | de | Credits | Study Semester | | Duration | | |
| FB | 13 | 3 | 5th semester | | one semester | | |
| | | | | _ | | | |
| 1 | Courses | | Workload | Number of | Self-study | | |
| | a) Lecture | e (VL) | 90h | hours | 47h Preparation and follow-up of | | |
| | b) Internsh | nip (P) | | a) 11h | VL, P and exam preparation | | |
| | , | 1 () | | b) 32h | | | |
| 2 | Content | | | | | | |
| | Lecture | | | | | | |
| | The small (I | red) blood o | count | | | | |
| | Iron metabo haptoglobin, | <u>lism: h</u> epcid haemopexi | in, ferroportin, f n | erritin, transferrin | , transferrin receptor, | | |
| | parameters: | cell number | s (erythrocytes | , leucocytes, thro | mbocytes), haemoglobin, | | |
| | haematocrit, | erythrocyte | indices (MCV, | MCH, MCHC), re | eticulocyte count | | |
| | <u>anaemia:</u> Irc deficiency, tl anaemia, sp deficiency, h haemolytic a | n deficiency halassemia, herocytosis, aemolytic tr naemia (All | / anaemia, chrc sickle cell anae , glucose-6-pho ansfusion react HA) | nic anaemia (AC emia, paroxysma sphate dehydrog ion, haemolytic r | D), vitamin B12 deficiency, folic acid l nocturnal haemoglobinuria, renal enase deficiency, pyruvate kinase leonatorum disease, autoimmune | | |
| | Haemolysis haemopexin | <u>paramet</u> ers: | : haptoglobin, L | DH, indirect biliru | bin, reticulocytes, free haemoglobin, | | |
| | Special exar activity test, carbohydrate | minations: H Coombs tes e-deficient tr | aemoglobin ele st, Schilling test ransferrin (CDT | ectrophoresis, osr , antibody determ) | notic resistance test, glucose-6 PD ination against the intrinsic factor, | | |
| | <u>Malaria: pat</u> l | nogen speci | es, life cycle of | plasmodia, clinic | al picture, diagnostics | | |
| | The large (v | vhite) differ | ential blood co | ount | | | |
| | Haematolog count, princi biological me | ical methods ple of flow c ethods (kary | <u>s: M</u> achine diffe ytometry, CD cl vogram, FISH, F | erential blood cou assification (CD 3 PCR) | nt, microscopic differential blood 3, CD19, CD33, CD34), molecular | | |
| | <u>Blood count</u> eosinophilia, | <u>changes: G</u> monocytos | ranulocytosis/g is, basophilia, s | ranulocytopenia, schilling phases | lymphocytosis/lymphocytopenia, | | |
| | leukemias: (myeloid leuk | Chronic mye aemia (AMI | loid leukaemia _), Acute lymph | (CML), Chronic ly atic leukaemia (A | /mphatic leukaemia (CLL), Acute LL), Multiple myeloma | | |
| | Haemostas | eology | | | | | |
| | Primary haemostasis: thrombocytes (function, activation, receptors) <u>,</u> von Willebrand factor (structure and function) | | | | | | |
| | Plasmatic co TFPI, Fibrino | bagulation sy plysis, Plasn | <u>ystem: intri</u> nsic/ nin, D-dimers | extrinsic system, | Protein C, Protein S, Antithrombin, | | |
| | Basic coagu time (aPTT), | lation tests: quick test (| in-vivo/in-vitro thromboplastin | bleeding time, PF time), INR, fibrin | A100, act. partial thromboplastin ogen determination, thrombin time | | |
| | Thrombocytopenia: pseudo-thrombocytopenia, heparin-induced thrombocytopenia (HIT), | | | | | | |

disseminated intravascular coagulopathy (DIC)/consumption coagulopathy, acquired₂₄ thrombocyte dysfunction: hepatopathy, renal insufficiency, Von Willebrand's disease

syndrome, Bernard-Soulier syndrome, thrombasthenia, Glanzmann-Naegeli, haemophilia A/B

medication: Heparins, direct thrombin inhibitors, direct factor Xa inhibitor, coumarin derivatives (Marcumar), platelet inhibitors: ASS, ADP receptor antagonists, GPIIb/IIIa receptor antagonists, fibrinolytics: t-PA, streptokinase

Immune system and inflammation

Innate immune system: Pattern recognition receptors: Toll-like receptors, granulocytes, monocytes/macrophages, special examinations

Acquired immune system: T lymphocytes (CD3), B lymphocytes (CD19), NK cells (CD16/56), cytotoxic cell, T-helper cells, antigen presenting cell (APC), TH1 and TH2 cells, B lymphocytes and antibodies: complement activation, opsonation, neutralisation, immunoglobulins G, A, M, D

Inflammation: Acute-phase reaction/proteins, proinflammatory cytokines (IL1, TNFalpha, IL6), anti-inflammatory cytokines (IL4, IL10, IL13), systemic inflammatory response syndrome (SIRS), sepsis

Carbohydrate metabolism

Basics: glycolysis, gluconeogenesis, lipolysis, beta-oxidation, blood sugar homeostasis, Insulin secretion, insulin action, diabetes mellitus, diabetes screening

Lipid metabolism and arteriosclerosis

Biochemistry: lipoproteins, apo-lipoproteins, classification of lipoproteins by ultracentrifugation and lipid electrophoresis

Arteriosclerosis: mechansimus, risk factors, modification of LDL, hsCRP, LP(a), Hyperhomocysteinemia

hyperlipidemia: Classification according to Frederickson, reactive-adaptive, primary and secondary

Hyperlipidemia, familial defective apo-lipoprotein B100, familial type III, hyperlipoproteinaemia (broad-beta-disease)

Endocrinology

Thyroid gland diseases: hyperthyroidism, hypothyroidism, euthyroid goiter, latent Hyper-/hypothyroidism, Autonomous Adenoma, Graves' Disease, Hashimoto's Threoditis,

Basic diagnostics: TSH, constellations TSH, fT3 and fT4, thyroperoxidase (TPO), thyroglobulin (TG), TSH receptor antibody (TRAK)

Kidney

Kidney diseases: Anuria, oliguria, polyuria, dysuria, uremia, urinary tract infections, Diabetic nephropathy, glomerulonephritis, nephrotic syndrome, tubulo-interstitial kidney disease: pyelonephritis, analgesic anephropathy, myeloma kidney (multiple myeloma), urolithiasis.

Urine tests: Haematuria, proteinuria, leukocyturia, nitrite, glucose, ketone bodies, pH, Detection of bacteriuria, microscopic assessment of the urinary sediment: cells, cylinders, bacteria, crystals, dysmorphic erythrocytes, Tamm-Horsfall protein, Bence-Jones proteins

Functional diagnostics: Glomerular filtration rate (GFR), creatinine, urea, cystatin C, Creatinine clearance, calculation of GFR: Cockroft-Gault, MDRD

| Enzymes, liver, pan | creas and heart |
|---------------------|-----------------|
|---------------------|-----------------|

<u>Enzymes</u>: enzyme activities: optical test, coupled optical test, isoenzymes: LDH, CK, AP, amylase, macroenzymes, isoenzyme and macroenzyme differentiation

<u>Liver:</u> bilirubin metabolism, icterus, enterohepatic circulation, indirect and direct bilirubin, liver enzymes: ASAT, ALAT, GLDH, gammGT, AP, de ritis quotient, cholinesterase, albumin, quick test

Pancreas: endocrine and exocrine pancreas, lipase, alpha-amylase, pancreas-specific amylase, elastase in stool

Heart and skeletal muscle: troponin T and I, creatinine kinase (CK) myoglobin

3 Teaching methods

Lecture and practical course (microscope and laboratory)

4 **Forms of examination**

Examination prerequisites: Regular attendance of lectures and practical course. Written examination.

| Clinical environmental medicine | | | | | | | |
|-------------------------------------|--|--|--|---|--|--|--|
| Code Credits | | Study Semes | ster | Duration | | | |
| QB | 6 | 3,5 | 8th semester | | one semester | | |
| 1 Courses a) Lecture (VL) | | Workload 105 h | Number of hours a) 35h | Self-study 70h Preparation and follow-up of VL, exam preparation | | | |
| 2 | Content | | | | | | |
| | Lecture Intro Envi Envi Plas Indo UV s Epid Envi Med insur Fields of c Illegs Dysp Vom | duction to cl ronmental ir ronmental m stics chemis or pollution spectrum an emiology ronmental m ical assess rance competenc al substance onea iting & Diarr | linical environme offluences on chr nedical diagnost try" in the enviro and indoor air qu d influences on nedicine: From in nent of environn e es & their abuse thea | ental medicine onic diseases of ics: anamnesis, k onment and healt uality / Detection the skin organ ind ndividual cases to nental diseases in | the airways biomonitoring, toxicology h methods and clinical relevance cluding cancer o public health n statutory social | | |
| 3 | Teaching r | nethods | | | | | |
| | Lecture | | | | | | |
| 4 | Forms of examination Examination prerequisites: Regular attendance of lectures. Final examination: Written examination (duration: 1 hour) | | | | | | |

| Clir | Clinical-pathological conference | | | | | |
|------|---|---------------------------|-------------------------------|--------------------------------|-----------------------------------|--|
| Coc | le | Credits | Study Semes | ter | Duration | |
| OB | QB 5 6,5 | | 7th semester | | one semester | |
| QD | | | | | | |
| 1 | Courses | | Workload | Number of | Self-study | |
| - | | (Λ / I_{Λ}) | 105h | hours | 121h Broparation and follow | |
| | a) Lecture | (VL) | 19511 | a) 48h | IS IN Preparation and follow- | |
| | b) Internsh | ip (BP) | | b) 16b | preparation | |
| | | | | b) 1011 | proparation | |
| 2 | Content | | | | | |
| | <u>Lecture</u> | | | | | |
| | | | | | | |
| | Hepatopatho | logy: | | | | |
| | Liver | -relevant la | poratory values | and liver histolo | gy, indication for liver biopsy | |
| | Hepa | atitis acute/c | hronic, causes | of chronic hepat | titis | |
| | viral | hepatitis, aι | itoimmune hepa | titis, drug-toxic | hepatitis | |
| | Chola | angitis, PBC | C/ PSC | | | |
| | Steat | tosis Hepati | s, Alcoholic Ste | atohepatitis/ No | n-alcoholic Steatohepatitis | |
| | Cirrh | osis of | | | | |
| | the liver cervi | x/portio: | | | | |
| | Initiati Non r | imations, dy | rspiasias Imors cervical c | arcinoma HD\/ | | |
| | Cvtol | ndical classi | fication Munich | III and Bethesd | а | |
| | Uterus: | Syloal olassi | | | u | |
| | Endo | metritis, enc | lometriosis, fund | tional disorders | s of the endometrium | |
| | Endor | metrial carc | inoma: molecula | ar genesis, histo | types | |
| | Leion | iyoma, | | - | | |
| | <u>Leiomyosarc</u> | <u>oma ovary:</u> | | | | |
| | Cysts | S | | | | |
| | Salpi | ingitis | | | | |
| | Epith | elial tumors | 5 | | | |
| | • Gern | n line strom | a tumors, germ | cell tumors, met | tastatic | |
| | lymph node p | pathology: | | | | |
| | Diag | nostic meth | ods of LK augm | entation | | |
| | react | ive lymph n | ode changes (ly | mphadenitis, fo | illicular hyperplasia, | |
| | grani Non | | ymphadenius) mehomo (Hoda | kin Lymphomo | and Classics P. NUI | |
| | • NON- | | nphoma / Houg | Kin Lymphoma | and Classics D-INFL | |
| | • Lynn | homa diffu | ipriorria (CLL), r | unculai tympho mohoma Burki | itt lymphoma. Hodakin lymphoma | |
| | nodu | lar sclerosis | s. mixed type, no | odular paragran | uloma | |
| | Mammarv pa | thology: | , | | | |
| | Inflar | mmation of | the mamma | | | |
| | benig | gn & malign | ant tumors, here | ditary breast | | |
| | carcinoma ne | ephropathol | ogy: | ý | | |
| | neph | ritic syndro | me, nephrotic sy | ndrome, rapid p | progressive GN | |
| | here | ditary disea | ses of renal tubi | les and glomer | uli | |
| | • Glom | nerulonephr | itides | - | | |
| | vasc | ular kidney | diseases | | | |
| | molecular pa | thology | | | | |
| | Mole | cular patho | gen diagnostics, | pre-analytical f | actors, criteria diagnostic tests | |
| | Analy | ysis of drive | r mutations | | | |
| | • Real | -Time PCR | | | | |
| | Para | llel sequenc | ing | | | |
| | pathology of | the lung: | | | | |
| | Inters | stitial lung d | iseases, neopla | stic lung diseas | es | |

Biomarkers lung carcinomas

| | Internship |
|---|---|
| | mucinous papillary cystadenoma serous cystadeno-Ca chronic viral hepatitis Hepatocellular carcinoma Miliary TBc liver invasive-ductal breast cancer Obular breast cancer (with CLIS) Fibroadenoma B-CLL, (B - Non Hodgkin, lymphocytic subtype) M.Hodgkin IgA- glomerulonephritis membranous glomerulonephritis Squamous epithelium-Ca, lung Small cell adeno-ca, lung Bronchopneumonia and pleuritis Pulmonary tuberculosis Emphysema of the lungs hyperplastic colon polyp Adeno-Ca, Colon Magenulcus Adeno-Ca, stomach |
| | LK- Metastasis of a signet ring Ca, stomach Fields of competence: The tumor patient |
| | Lymph node enlargement Kidney dysfunction |
| 3 | Teaching methods Lecture; practical course in the microscope room and case study discussion with clinicians |
| 4 | Forms of examination |
| | Examination prerequisites: Regular attendance of lectures and practical |
| | training. Written examination. |

| Med | dicine of agi | ng & the eld | erly | | |
|--------------|---|--|--|--|---|
| Code Credits | | Study Semester | | Duration | |
| QB | 7 | 3,5 | 10th semester | | one semester |
| 1 | Courses | • | Workload | Number of | Self-study |
| | a) Lecture | (VL) | 105 h | nours | 66h Preparation and follow-up of |
| | b) Practica | l Training | | a) 33h | VL, BP and exam preparation |
| | (BP) | - | | b) 6h | |
| 2 | Content | | | | |
| | Lecture: | | | | |
| | Brief Theo heter | history of ge ries of agein ogeneity, coi | riatrics. Aging: e g. Biochemistry mplexity. | epidemiology and and physiology c | <i>socioeconomic burden.</i> If ageing processes, |
| | Atypic Patie | cal disease p nt-centered, | presentation, mi goal-oriented c | ultimorbidity and r are. Quality of life | multidimensional assessment. Frailty. and well-being in old age. |
| | Cardi | ovascular di | seases / instabi | lity and immobility | / |
| | Neuro | ogeriatrics / (| Cognitive disord | lers and moveme | nt disorders |
| | The p Polyp | oroblem of ev harmacy, gu | vidence. Observ iideline-orienteo | vation vs. RCTs ir d therapy | n geriatric medicine. |
| | Case psych | conference losomatics, g | on complex cas geriatric trauma | suistics and rotatin tology, oncogeria | ng in the course: trics. |
| | Practical Tr Topics: Risk communicat discharge m | raining: of falling, pr tion. Multidim anagement. | ressure sores, c iensional asses End of life and | delirium risk. <i>Copi</i> sment-based fore spirituality | ing, compliance, ecasting, geriatric team, |
| | Fields of c • Mem • Move • Dizzi | ompetence lory impairme ement disord ness | ent Iers | | |
| 3 | Teaching m Lecture, Pr | ethods actical Trair | ning, KF with I | ectures | |
| 4 | Forms of ex Examination en bloc. Fin | xamination n prerequisi al examinat | tes: Regular at ion: Written ex | tendance of lectu amination. | ures and practical training |

| Neu | Neurology | | | | | |
|--------------|--|---|--|-------------------------------|------------|------------------------------|
| Code Credits | | Study Semes | Study Semester | | Duration | |
| FB | FB 14 6 8 | | 8th semester | | | one semester |
| 1 | Courses | | Workload | Numb | er of | Self-study |
| | a) Lecture | (VL) | 180h | hours | 104 | 146h Preparation and follow- |
| | b) Practica | l Training | | a) | 18N 16b | up of VL, BP and exam |
| 2 | (BP) | | | D) | 1011 | preparation |
| 2 | Content | | | | | |
| 3 | Intro Moto Sensitive cran Cere Extra Head Mult men Spin Nerv Mus Cere Cere Cog | duction cran or skills sitivity ial nerves ar ebellar disorc apyramidal n dache iple Sclerosis ingitis, encep al diseases, re lesions cular diseases ebrovascular ebrovascular nitive disorde | al nerves ad peripheral di lers and centra notor disorders s ohalitis radicular syndr es diseases I diseases I ers | zziness I vertigo romes | | |
| | Leolure, pr | | | | | |
| 4 | Forms of e | xamination | | ttereder- | | turner and monotical |
| | Examinatio training en | n prerequisi bloc. Writter | tes: Regular a | ttendan | | ctures and practical |
| | training en bloc. Written examination. | | | | | |

| Em | Emergency Medicine | | | | | | |
|--|--|---------------------------------------|---------------------------|---------------------------|---------------------------------------|--|--|
| Cod | le | Credits | Study Semester | | Duration | | |
| QB 8 | | 3,5 | 7th + 9th seme | ester | 2 semesters | | |
| | | | | | | | |
| 1 | Courses | | Workload | Number of | Self-study | | |
| | a) Lecture | (VL) | 105h | nours | 49h Preparation and follow-up of | | |
| | b) KF CPR | R (VL + BP) | | a) 29h | VL, BP and exam preparation | | |
| | , | , , , , , , , , , , , , , , , , , , , | | b) 5h + 22h | CPR: Practice times in KISS for | | |
| | | | | | practical exam | | |
| 2 | Content | | | | | | |
| | Locturo | | | | | | |
| | | | | | | | |
| | First aid for | emergency p | <u>batients (</u> Treat f | irst what kills first |) | | |
| | Important cl | linical picture | s: polytrauma: | | | | |
| | Basic | knowledge | of how to recog | nise and act in ar | emergency situation | | |
| | (ABC | DE) | aurian antinaia | otion and monitor | ing immobilization | | |
| | AlfWa Breat | thing: Testing, se | Curing, optimis | alion and monitor | ing, immobilisation | | |
| | Circu | lation: testing | bleeding cont | rol coagulation o | ptimisation | | |
| | Neur | ology: testing | , documentatio | n | | | |
| | Envir | onmental fac | tors | | | | |
| | • anam | nnesis (SAMF | PLE scheme) | | | | |
| | • Emer | gency medic | ation: Analgesi | cs, hypnotics, mu | scle relaxants and | | |
| | CITCU | latory stabilis | ing drugs (sele | ction / dosage), a | Iternative routes of | | |
| | • Volur | nistration: na ne therapy: c | sal, intraosseou | us Ince therapy con | cents | | |
| | polvtr | auma: definit | ion pathophysi | iology algorithm t | for preclinical treatment of | | |
| | polytr | auma, conce | pt of the three | collisions | | | |
| | Conc | ept "load, go | and treat | | | | |
| | | | | | | | |
| | Trauma sur | gery - limb/pe | <u>elvis trauma/lux</u> | <u>ation, burns, pnei</u> | umothorax: | | |
| | Physical Physical Physical | sical examina | ation of the injur | red patient, "body | check", craniocaudal | | |
| | • Imm | obilisation wi | th scoop stretcl | her vacuum matt | ress and splint material | | |
| | moto | orbike helmet | removal | nor, vaoaam maa | | | |
| | Basi | c knowledge | of common inju | ury patterns includ | ling specific diagnostics and | | |
| | prec | linical therap | y, e.g. thoracic | trauma, blunt abo | lominal trauma, fractures of the | | |
| | extre | emities (with | reduction techn | iques and indicat | ion), pelvic fracture (keyword "blood | | |
| | 1055 |), amputation | Tinjunes | | | | |
| "The brain is a nutshell"- emergency care for craniocerebral trauma: | | | | ral trauma: | | | |
| | Basic | knowledge | of anatomy and | physiology of the | e central nervous system (CNS), spine | | |
| | and s | kull with eme | ergency medica | l reference | | | |
| | Defin | ition and clin | ical examination | n of the vital funct | ion "consciousness" and its | | |
| | • Crani | iocerebral tra | uma: definition | and (common) ca | auses primary and secondary | | |
| | dama | age (keyword | "cerebral press | sure" with definition | on), definition "open" and | | |
| | "close | ed SHT", def | inition and surv | ey of the Glasgow | Coma Scale (GCS) and its | | |
| | signif | icance as a c | diagnostic criter | ion, typical clinica | al symptoms and preclinical | | |
| | alagn | inical therees | eurological exa | mination, pupiliar | y ulagrioslics | | |
| | and a | anaesthesia (| kevword "cereb | ral pressure"), de | tection and specific measures in case | | |
| | of inc | reased cerel | oral pressure | ,,, | | | |
| | Intrac | cerebral haer | norrhages (disti | nction "epidural", | "subdural" and "subarachnoid") | | |
| | with s | specific diagr | ostics and eme | ergency therapy | 32 | | |
| | Select | ction of a suit | able target clini | c (keyword "CCT | , possibility of surgical | | |

| | intervention, intensive care capacities) |
|---|--|
| | Cardio-circulatory emergencies: |
| | <i>Important clinical pictures</i> : Myocardial infarction/ACS, cardiac arrhythmia, pulmonary |
| | embolism, heart failure |
| | Epidemiology of emergencies in internal medicine. Fundamentals of cardiological examination in preclinical emergency medicine and the significance of clinical symptoms |
| | Basic knowledge of acute coronary syndrome (STEMI, NSTEMI, unstable angina pectoris), |
| | Diagnostics and therapy including management of ACS (preclinical lysis, PTCA / stenting) and cardiogenic shock / acute insufficiency |
| | Basic knowledge of acute pulmonary artery embolism, diagnostics and therapy, in particular management of sub massive pulmonary embolism and massive pulmonary embolism (anticoagulation vs. thrombolytic therapy) |
| | Basic knowledge of hypertensive emergency procedures, diagnostics and therapy (antihypertensives), management of aortic dissection |
| | Basic knowledge of relevant cardiac arrhythmias, ECG diagnostics and acute therapy of supraventricular (especially atrial fibrillation, atrial flutter, AVNRT) and ventricular arrhythmias (especially VT, TdP-tachycardia, ventricular fibrillation) as well as bradycardias (AV blockages) |
| | Selection of a suitable target clinic, keyword coronary angiography/ PTCA, myocardial revascularisation |
| | Shock: |
| | Shock: definition, pathophysiology of shock |
| | Shock forms with differential diagnostics |
| | Treatment of the shock, taking into account the underlying |
| | pathophysiology |
| | Complications of shock / organ failure |
| | Fields of competence |
| | Cardiopulmonary resuscitation (CPR) |
| | Polvtrauma |
| | Upper abdomen pain |
| 3 | Teaching methods |
| | Lecture; KF CPR with lecture and practical course |
| 4 | Forms of examination |
| | Written examination |
| | Oral-practical examination in KF CPR |
| | (Division into groups of 3 in a simulated emergency situation. Positions: Medicine |
| | case, respiration, defibrillator) |

| Ort | Orthopaedics | | | | | | |
|---------|--|----------------------------------|--|-----------------|----------|-------------------------------------|--|
| Cod | de | Credits | Study Semes | ster | | Duration | |
| FB 15 3 | | | 7th semester | 7th semester | | one semester | |
| 1 | Courses | | Workload | Number o | of | Self-study | |
| | a) Lecture | : (VL) | 90 h | hours | | 47h Preparation and follow-up of | |
| | b) Practica | al | | a) 18h | 1 | VL, BP and exam preparation | |
| | Training | j incl. | | b) 25h | 1 | | |
| 2 | Content | | | | | | |
| | Lecture | | | | | | |
| | • Sco | pes of mover | nent physiologi | cal, extensio | on/flex | tion, pronation/supination, | |
| | abdu | uction/adduct | tion utral zero meth | od assocs | oont of | fatatic/ Scoliosis | |
| | segr | nental move | ment test, joint | stability, liga | ament | tests, pain in movement, | |
| | pain | in stretching | , pain in compr | ession, pain | n in sha | aking, special functions | |
| | (fist | closure, key | grip etc.) | tendon Tri | ömner | reflex natillary tendon Achilles | |
| | tend | lon) | tendon, tricepa | stendon, m | onnei | Tenex, patillary tendon, Achilles | |
| | Spin Becl | ial column, si hterew | lipped discs, sp | inal stenosi | s, deg | enerative processes, M. | |
| | • Spo | ndylodiscitis, | spondylolisthe | sis | | | |
| | • Tum | ors of the loo | comotor system | n (osteoid os | steoma | a, osteoblastoma, giant cell tumor, | |
| | Ane chore | urysmatic bo ndrosarcoma | ne cyst, osteosarcoma, Ewing sarcoma, plasmocytoma,) | | | | |
| | • Scol | liosis | | | | | |
| | • axia | l malposition | of the legs (X a | and bow leg | s) | | |
| | Gon | arthrosis, co rta injurioa kr | xarthrosis | r toot torp i | nnorlo | utorligoment | |
| | • Spo men | iscus injuries kr | iee joint, drawe S | r lest, lorn i | nner/o | uter ligament, | |
| | • Kypl | hosis (hyperk | kyphosis, kypho | oscoliosis), le | ordosi | s | |
| | Sho | ulder joint (R | etroversio/Ante | version, ext | ternal/i | internal rotation, | |
| | Dise Oct | eases of the f | oot, ankle joint | injuries | | | |
| | Chile | dhood hip joi | nt diseases | | | | |
| | | | | | | | |
| | Practical T | <u>raining</u> | mination (oning | lower and | | | |
| | • Offinition examples of the second s | nination in si | nall groups | , lower and | upper | extremities) with sen- | |
| | Visit | to the ward, | anamnesis and | d examinatio | on of p | previously assigned patients, | |
| | eval the | uation of X-ra | ays and prepara es | ation of a tre | eatmer | nt plan, subsequent presentation of | |
| | Rota | ation through | the departmen | ts: Orthopa | edic te | chnology, rehabilitation, | |
| 3 | OCCL Teaching m | ipational thei | apy. A plaster | course is off | tered. | | |
| | Lecture; Pra | actical Trainir | ıg en bloc | | | | |
| | | | - | | | | |
| 4 | Forms of e | xamination | es: Regular atte | andance of I | lecture | s and practical | |
| | training. Wr | itten examina | ation (duration: | 1 hour). | | | |
| | | | 、 | .,. | | | |

| Pal | liative care | | | | |
|-----|--|-------------------------------|-------------------------|--|--|
| Coo | de | Credits | Study Semes | ster | Duration |
| QB | 13 | 2,5 | 10th semeste | r | one semester |
| 1 | Courses a) Lecture b) Internsh seminar | (VL) hip, including (P) | Workload 75 h | Number of hours a) 20h b) 18h | Self-study 37h Preparation and follow-up of VL, internship and exam preparation |
| 2 | Content | | I | 1 | |
| | Lecture Neuro Palliative Care Multi-professional team in palliative care Acute situation and palliative sedation Palliative care and internal medicine Psychiatry and palliative care Palliative medical care structures Fields of competence Control of symptoms Changes in therapy: Ethical decision making & conversation Weight loss & lassitude | | | | |
| 3 | Teaching m | nethods | | | |
| | Lecture, pr | actical traini | ing, KF with le | ectures and sen | ninar |
| 4 | Forms of e | xamination | | | |
| | Examinatio | n prerequisit | tes: Regular a | ttendance of lec | tures and practical |
| | training. Final examination: Written examination. | | | | |

| Pat | hology | | | | | |
|-----|--|------------------|-------------------------|--------------------|-------------------------------------|--|
| Coc | le | Credits | Study Seme | ster | Duration | |
| FR | 16 | 6 | 5th semester | | one semester | |
| чD | 10 | 0 | Jui semester | | one semester | |
| 1 | Courses | | Workload | Number of | Solf_study | |
| | oourses | A A N | 4001 | hours | | |
| | a) Lecture | (VL) | 180h | a) $18b$ | 102h Preparation and follow- | |
| | b) Internsh | iip (P) | | a) 401 | up of VL, P and exam | |
| | | | | b) 30h | preparation | |
| 2 | Content | | | | | |
| | Lecture | | | | | |
| | Inflammator | v pathology | : | | | |
| | Forn | ns: acute, cl | - nronic, special t | forms | | |
| | Spru | l | | | | |
| | Sarc | oidosis and | TBC | | | |
| | Ebol | а | | | | |
| | • CED | | | | | |
| | Amy | loidosis <u></u> | | | | |
| | Tumor path | ology: | | | | |
| | Carc | inogenesis | | | | |
| | • Tumo | or classifica | tion: Grading, s | staging, TNM clas | ss, Nomenclature: benign, malignant | |
| | • Inher | itances | | | | |
| | • Iumo | or suppress | or genes | | | |
| | • targe | ted theraple | es | | | |
| | | lumors_ | | | | |
| | <u>EINT.</u> | nmations | | | | |
| | | ursor lesion | s and tumors | | | |
| | Gastrointesti | nal tract: | | | | |
| | • mald | igestion, ma | alassimilation, r | nalabsorption | | |
| | Malformation | ormations | | · | | |
| | Oesc | phagitis, G | astritis | | | |
| | Diarr | hoea of unc | lear genesis | | | |
| | inflar | nmatory cha | anges of the co | lon, tumors | | |
| | Urinary tract | /kidney/mal | <u>e genitals (urop</u> | <u>pathology):</u> | | |
| | Inflar | nmatory cha | anges | | | |
| | Precursor lesions and tumors of the urinary tract/kidney/prostate/male | | | | | |
| | Genital hae | matopatholo | <u>ogy:</u> | | | |
| | • Meth | ods and ind | a creat biopov | ne marrow diagno | DSUCS | |
| | • Tech | topography | of the normal l | and infolings | | |
| | | Stroma KM. | Infiltrates | | | |
| | • dran | ilomatous n | nvelitis | | | |
| | • perni | cious anaer | nia (Vit B12/fol | ic acid deficiency | () | |
| | toxic aplasia | | | | | |
| | Acute leukaemia | | | | | |
| | chronic myeloproliferative diseases (CMPE) | | | | | |
| | <u>Cardiovascu</u> | ular patholo | <u>qv:</u> | · <u>·</u> | | |
| | • Dege | eneration | | | | |
| | Hear | t failure, my | ocarditis | | | |
| | Card | iomyopathie | es | | | |
| | Thro | mbosis, em | bolism, infarctio | on | | |
| | Arter | iosclerosis | | | | |
| | • Flap | detects, flap | o prostheses | | | |
| | Bypa | sses, stents | 6 | | | |
| | | | | | 36 | |

| Inter | nsnip |
|-------------|--|
| Inflam | nmatory pathology: |
| • | fatty liver |
| • | Renal infarction |
| • | Pancreatic necrosis and fat tissue necrosis |
| • | chronic atrophic gastritis with intestinal metaplasia |
| • | NZN, dermal nevus, pigment cell nevus |
| • | Anthracosis of the lungs |
| • | Amyloidosis of the kidney |
| • | Amyloidosis |
| • | lobar fibrinous pneumoni |
| • | lobar fibrinous pneumonia |
| • | Acute appendicitis |
| • | Lung abscess |
| | Intestine - Tbc |
| | Miliar - The Jung |
| tumo | ir pathology: |
| | macroscopic examples of lecture with pathogenesis |
| | |
| • | |
| • | |
| • | |
| • | Renal carcinoma |
| • | Phaeochromocytoma, NN-mark |
| • | Adrenal cortex adenoma |
| • | Adenomyomatosis prostate, (hyperplasia benign), prostate cancer |
| • | Adenoma of the colon mucosa, Adeno-Ca Colon |
| • | Magenulcus |
| • | Adenocarcinoma, stomach |
| • | LK- Metastasis of a signet ring Ca, stomach |
| • | Verruca plantaris |
| • | Carcinoma in situ, Portio |
| • | heart-shaped cornified collum or cervix - Ca |
| • | Myom uterus |
| cardi | ovascular pathology. |
| <u>ouru</u> | Myocardial infarction |
| | |
| | mixed thrembus |
| • | mixed uniombus |
| • | organised thrombus |
| • | fresh anaemic heart attack |
| • | Pulmonary oedema |
| • | chronic congested lung |
| • | haemorrhagic pulmonary infarction |
| • | Congested liver |
| • | Arteriosclerosis |
| Tooo | hing mothods |
| reac | |
| Lect | ure; practical course in the microscope room |
| Forn | ns of examination |
| Exar | nination prerequisites: Regular attendance of lectures and practical |
| COUR | ses Final examination written examination + examination on the |
| miar | |
| micr | oscope |

| Psy | Psychiatry and Psychotherapy (incl. CYP) | | | | | |
|------------|---|-------------------------------|-------------------|---------------------|---------------------------------|--|
| Code Credi | | Credits | Study Semes | ter | Duration | |
| FΒ | FB 18 6 8 | | 8th semester | | one semester | |
| 1 | Courses | I | Workload | Number of | Self-study | |
| | a) Lecture | (VL) | 180h | hours | 120h Preparation and follow- | |
| | b) Practica | l Training | | a) 30h | up of VL, P and exam | |
| 2 | (BP) inc | I. seminar | | b) 30h | preparation | |
| 2 | Locture | | | | | |
| | • Psvo | chopharmac | otherapy | | | |
| | Psvo | chotherapy | emerapy | | | |
| | Unip | olar depress | sion/ bipolar de | epression | | |
| | Psyc | chotropic dru | igs in pregnan | cy and breastfee | eding | |
| | Delir | ſ | | | | |
| | Obs | essive-comp | oulsive disorde | ers | | |
| | Autis | sm | | | | |
| | Lega | al basis | | | | |
| | | zopnrenia atv diagradara | | | | |
| | Anxi Trau | ma sequelae | | | | |
| | Opia | ites/illegal dru | Jas | | | |
| | Alco | hol addiction | | | | |
| | • pers | onality disord | lers/borderline | | | |
| | ADH | ID J | | | | |
| | Neur | ropsychiatry | | | | |
| | Dementia | | | | | |
| | Clinical pictu | Jres: | | | | |
| | • Dem | ientia or orga | nic mental disc | orders | | |
| | Psychological and behavioural disorders caused by psychotropic substances | | | | | |
| | (alcohol addiction or drug addiction or dependence on medication) | | | | | |
| | Schizophrenia, schizotypal and delusional disorders | | | | | |
| | Anxiety disease/affective disorders (delusional/non-delusional depression or mania) | | | | | |
| | Pers | onality and b | ehaviour disor | ders (borderline p | ersonality disorder) | |
| | Sleep disturbance, eating disorders, neurotic disorders, self-destructive behaviour | | | | | |
| | Psychotropic drugs | | | | | |
| | Antic | depressants (| tricyclics, SSR | I, MAO inhibitors, | NSRI (e.g. venlafaxine), others | |
| | (e.g. | mirtazapine) |) | (| | |
| | • Antipsychotics (butyrophenones (e.g. haloperidol, melperon), thioxanthenes | | | | | |
| | sulpiride, amisulpride), "atypical" ones (e.g. clozapine, olanzapine, risperidone) | | | | | |
| | • Tran | quillizer | | | | |
| | • moo lamo | d stabilisers (otrigine)) | (lithium, anti-ep | oileptic drugs (car | bamazepine, valproicacid, | |
| | • Med | icines in alco | hol withdrawal | | | |
| 3 | Teaching m | ethods | | | | |
| | Lecture; pra | actical traini | ng incl. semir | nar | | |

| 4 | Forms of examination |
|---|---|
| | Examination prerequisites: Regular attendance of lectures and active participation in practical training. |
| | Final examination: Written examination. |

| Psychosomatic medicine | | | | | | | |
|------------------------|--|---------------|--------------------------------|-----------|----------------------------------|--|--|
| CodeCreditsFB 194 | | Credits 4 | Study Semester 8th semester | | Duration one semester | | |
| 1 | Courses | | Workload | Number of | Self-study | | |
| | a) Lecture | (VL) | 120h | hours | 78h Preparation and follow-up of | | |
| | b) Practica | l Training | | a) 12h | VL, BP and exam preparation | | |
| | (BP) inc | l. seminar | | b) 30h | | | |
| 2 | Content | | | | | | |
| | Lecture: | | | | | | |
| | Fundamentals of health and illness in psychosomatic medicine Depressive reaction ("adaptation disorder"), depressive episode ("unipolar depression") Anxiety disorders Acute stress response and post-traumatic stress disorder Somatoform disorders Dissociative disorders Psychogenic eating disorders Biopsychosocial factors in selected physical diseases Psychosomatics of pain perception | | | | | | |
| | Internship including seminar: Presentation and introduction Demonstration: Psychosomatic complex treatment Demonstration: Psychosomatic medical history Live interview with a patient by the lecturer before the group Seminar: Breaking bad news (BBN) Knowledge transfer, video, role plays, group discussion Exercise: Relaxation techniques Practical exercises of progressive muscle relaxation (PMR) and/or autogenic training (AT). Exercise: BBN with acting patient Demonstration: Exploration of occupational fields Work in the field of psychosomatic medicine and psychotherapy. Participation in conferences and diagnostic discussions or active involvement in art therapy Exercise: Balintgroup Guided group discussion on own examples of critical treatment situations Exercise: Psychosomatic initial interview Live interview with simulated patients, possibility to repeat individual situations, feedback, discussion Feedback round | | | | | | |
| 3 | Teaching m | ethods | ing inclusion | | | | |
| | Lecture; pr | actical train | ing inci. semir | Idl | | | |
| 4 | Forms of examination | | | | | | |
| | Examination prerequisites: Regular participation and active involvement | | | | | | |
| | in the practical training. Final examination: Written examination. | | | | | | |

| Credits | | Credits | Study Seme | e ster r | Duration one semester | | | | | | |
|--|--------------------------------|-------------------------|--------------------------------|--------------------|--|---|-------|--------------|-----|--|---|
| U | 12 | 0,0 | our semeste | • | | | | | | | |
| | Courses | | Workload | Number of | Self-study | | | | | | |
| | a) Lecture | (VL) | 105 h | hours | 77h Preparation and follow-up of | | | | | | |
| | | | | a) 28h | VL and exam preparation | | | | | | |
| 2 Content | | | | | | | | | | | |
| | Lecture: | | | | | | | | | | |
| | • Reh | nabilitation | | | | | | | | | |
| | | Definition | ical cocupation | al agaid payab | | | | | | | |
| | | Types (med | ical, occupation | hai, sociai, psych | ological) | | | | | | |
| | | Rehabilitatio | n chain | | | | | | | | |
| | | Follow-up tr | eatment | | | | | | | | |
| | | Rehabilitatio | on organisation | S | | | | | | | |
| | \triangleright | Basic princi | oles (holistic ap | proach, early int | ervention and long-term orientation, | | | | | | |
| | | team princip | le, multi- and i | nterdisciplinary a | pproach, acceptance of disabled | | | | | | |
| | | people, reha | abilitation befor | e retirement and | rehabilitation before care, rehabilitatior | | | | | | |
| | | as help for s | elf-help, outpa | tient before day-o | care & day-care before inpatient) | | | | | | |
| | \triangleright | therapy tear | n | | | | | | | | |
| | \succ | Neurorehab | urorehabilitation ase model | | | | | | | | |
| | | Phase mode | | | | | | | | | |
| | | Immobility consequences | | | | | | | | | |
| Example of a rehabilitation concept Physical medicine Definition Therapeutic Products | | | | | | | | | | | |
| | | | | | | Remedies and aids Principles of action (stimulus-response, relief + protection, inhibition + 1 habituation, sensomotoric, functional, trophic and plastic adaptation, neuroplasticity, behavioural change) | | | | | |
| | | | | | | | | | | | of + protection inhibition + facilitation |
| ic and plastic adaptation | | | | | | | | | | | |
| | | | | | | | | | | | |
| Specialist for rehabilitation + physical medicine Naturopathy and associated fields | | | r rehabilitation | + physical medic | licine | | | | | | |
| | | | | | | | | | | | |
| | Definition | | | | | | | | | | |
| | \succ | Overview (n | utritional, respi | ration/exercise, h | nydro/thermal, phyto-, | | | | | | |
| | | order therap | y) | | | | | | | | |
| | \succ | Naturopathy | / | | | | | | | | |
| | \triangleright | Complemen | tary Medicine | | | | | | | | |
| | | Alternative N | Medicine | | | | | | | | |
| | | | liaina | | | | | | | | |
| | | | licine | | | | | | | | |
| | > \ | | | | | | | | | | |
| | | | y phical medicing | | | | | | | | |
| | | TCM | | , | | | | | | | |
| | | Ayurvedic m | nedicine | | | | | | | | |
| Fields of competence | | | | | | | | | | | |
| | | | | | | | • Car | diac arrhvth | mia | | |
| | | | | | | | | | | | |

| 3 | Teaching methods Lecture, KF with lectures | | | | |
|---|---|--|--|--|--|
| 4 | Forms of examination | | | | |
| | Examination prerequisites: Regular participation in lectures. | | | | |
| | Final examination: Written examination. | | | | |

| Urology | | | | | | | | |
|--------------|--|----------------|------------------------|---------------------------------------|---|--|--|--|
| Code Credits | | Study Semester | | Duration | | | | |
| FB 21 2 | | 7th semester | | one semester | | | | |
| 1 | a) Lecture (VL) b) Internship (P) | | Workload 60h | Number of hours a) 12h b) 5h | Self-study 43h Preparation and follow-up of VL, P and exam preparation | | | |
| 2 | 2 Content | | | | | | | |
| | Content Lecture Urogenital malformations (renal abnormalities, numerical malformations of the kidney, ureteral abnormalities, genital abnormalities, intersex) Pediatric urology (micturition disorders, enuresis, congenital malformations) Genital diseases (varicocele, hydrocele testis) Benign prostatic syndrome Urological oncology (kidney, ureter, bladder, prostate and testicular tumors, rare tumors, childhood tumors) Urolithiasis Infectiology in urology Bladder dysfunction (incontinence, benign prostate syndrome, urinary tract infection) Andrology female urology reconstructions (reconstruction of the pelvic floor, repair of ureteral damage or narrowing of the urethra, bladder replacement surgery) Emergencies in urology | | | | | | | |
| 3 | Teaching methods Lecture; small group practical training (2 days). | | | | | | | |
| 1 | | | | | | | | |
| 4 | Forms or examination Examination prerequisites: Regular attendance of lectures and practical training. Written examination. | | | | | | | |