



UČNI NAČRT PREDMETA / SUBJECT SPECIFICATION

Predmet:	Kirurgija – delo ob bolniku
SubjectTitle:	Surgery - workwithpatients

Študijski program Studyprogramme	Študijska smer Studyfield	Letnik Year	Semester Semester
Splošna medicina General medicine - EMŠP		6	11 in 12

Univerzitetna koda predmeta / Universitysubjectcode:

Predavanja Lectures	Seminar Seminar	Sem. vaje Tutorial	Klin. vaje Clinwork	Praktikum	Samost. delo Individ. work	ECTS
				240	120	12

Nosilec predmeta / Lecturer:

Red. prof. dr. Anton Crnjac

Jeziki /

Predavanja / Lecture:

Slovenski/slovene

Languages:

Vaje / Tutorial:

Slovenski/slovene

Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:

Prerequisites:

Vsebina:

Content (Syllabusoutline):

Študenti nadgrajujejo že pridobljeno kirurško znanje s praktičnim delom pod mentorstvom sobnega zdravnika v bolniških sobah, ambulantah in operacijskih dvoranah. Osnovni namen dela ob bolniku je prenesti dodatno izpopolnjeno teoretično znanje v vsakodnevne praktične aktivnosti posameznih kirurških področij, še posebej na področju akutnih stanj v kirurgiji. Študenti so vključeni v timsko obravnavo kirurškega bolnika. Sodelujejo pri kliničnem pregledu bolnika, pri načrtovanju diagnostičnih preiskav in pri kirurškem zdravljenju. Seznanijo se s pripravo bolnika na načrtovane kirurške posege, specifično in patofiziologijo posameznih kirurških bolezni, pooperativnem vodenju bolnika, potrebno analgezijo, perioperativno intenzivno terapijo in možnimi zapleti operativnega zdravljenja. Pod mentorstvom izvajajo preveze kirurških ran, nadzirajo delovanje različnih drenaž in katetrov, odstranjujejo šive in odvzemajo kri za laboratorijske preglede. Opravijo določeno število predpisanih manjših kirurških posegov, navedenih v kartonu praktikuma. Podrobnosti ambulantnega dela spoznajo pri delu v specialistični ambulanti različnih kirurških področij, posebnosti dela v dežurstvu pa pri spremljanju dela dežurnih ekip splošne kirurgije in travmatologije v popoldanskem ali nočnem času. Kot asistenti aktivno sodelujejo pri izvajanju elektivnih operacij. Poglobljeno znanje na področju invazivne radiološke diagnostike, transfuziologije, laboratorijske diagnostike in perioperativne intenzivne terapije pridobijo pri izvedbi posameznih enodnevnih vaj omenjenih področij.

Students upgrade already obtained surgical knowledge by practical work under the mentoring of room physician in sickrooms, outpatient clinics and operating theatres. The basic purpose of work by the patient's side is to transfer additionally advanced theoretical knowledge into daily practical activities of individual surgical areas, especially in the area of acute conditions in surgery. Students are included into a team treatment of a surgical patient. Students cooperate in clinical examination of a patient, in planning of diagnostic tests and in surgical treatment. Students acquaint themselves with the preparation of a patient to planned surgery, with the specification and pathophysiology of individual surgical diseases, with postoperative management of a patient, with the needed analgesia, perioperative intensive therapy and possible complications of operative treatment. Under the mentoring students implement bandages of surgical wounds, monitor operation of various drainages and catheters, remove stitches and take blood for laboratory examinations. They perform a certain number of prescribed minor surgical procedures, given in a record of practical training. Students meet with the details of ambulatory work at work in specialist outpatient clinics of various surgical areas, they meet with particularities of work on duty in monitoring the work of duty teams of general surgery and traumatology in the afternoon or night time. As assistants they actively cooperate in the implementation of elective surgery. In-depth knowledge in the area of invasive radiological diagnostics, transfusiology, laboratory diagnostics and perioperative

intensive therapy is gained in the implementation of individual one-day practices of the mentioned areas.

Temeljni literatura in viri / Textbooks:

- Smrkolj V. Kirurgija. Celje: Grafika Gracer, 2014.
- Sabiston textbook of surgery / [edited by] Courtney M. Townsend Jr. ... [et al.]. 19th ed. 2012.
- Učno gradivo posameznih predavateljev ali priporočena literatura posameznih področij kirurgije svetovana s strani predavateljev.

Dodatna literatura:

Egradivo: ZUNAJTELESNI KRVNI OBTOK: Antonič Miha

Žilne anastomoze in osnove oskrbe poškodb žilne stene; Antonič Miha, Nina Kobilica

Egradivo : KIRURŠKO ZDRAVLJENJE INFEKCIJSKEGA ENDOKARDITISA (Antonič Miha)

Cilji:

Osnovni cilj praktičnega dela v bolnišnici je nadgraditi študentovo teoretično znanje za prepoznavo kirurške patologije bolnikov v vsakdanji klinični praksi, še posebej pri obravnavi akutnih kirurških stanj in reševanju poškodb.

Posebni in poglobljeni cilj je poznavanje patofiziologije kirurških bolezni, rizičnih dejavnikov pri kirurških bolnikih, izvedbe ustrezne diagnostike, možnih načinov kirurškega zdravljenja, možnih pooperativnih zapletih ter potrebnih postopkih do dokončne kirurške oskrbe. Ob tem je študentu potrebno omogočiti izvedbo določenega števila enostavnih kirurških posegov (punkcije, drenaže, uvajanje sond in katetrov, oskrba manjših kirurških ran, imobilizacije), ki jih bo lahko samostojno izvedel pri oskrbi bolnikov.

Objectives:

The basic objective of practical work in a hospital is to upgrade the student's theoretical knowledge for the recognition of surgical pathology of patients in the treatment of acute surgical conditions and in rescuing injuries.

A special and in-depth objective is knowing pathophysiology of surgical diseases, risk factors in surgical patients, implementation of appropriate diagnostics, possible modes of surgical treatment, possible postoperative complications and needed procedures to the final surgical care. Besides this it is necessary to facilitate the implementation of a certain number of simple surgical interventions to a student (punctures, drainages, introduction of probes and catheters, care of minor surgical wounds, immobilizations) who will be able to implement them independently in the care for the patients.

Predvideni študijski rezultati:

Študenta usposobiti za samostojno delo pri kompleksni obravnavi kirurškega bolnika in izvedbi vseh potrebnih postopkov pred dokončno kirurško oskrbo.

Intended learning outcomes:

To train a student for independent work in the complex treatment of a surgical patient and the implementation of all necessary procedures prior to the final surgical care.

Metode poučevanja in učenja:

Šest tednov praktikuma na posameznih kirurških oddelkih. Nadgradnja že pridobljenega teoretičnega znanja s sprotnimi diskusijami o patologiji hospitaliziranih bolnikov ob bolniški postelji, na vizitah ali v sklopu predoperativne obravnave. Pridobivanje znanj o diagnostičnih postopkih in smernicah dela za ambulantno obravnavo bolnikov in poškodovancev. Učenje na podlagi poglobljenega preučevanja posameznih kliničnih primerov. Izdelava seminarja pod vodstvom mentorja iz posameznega področja kirurgije.

Learning and teaching methods:

Six weeks of practical training at the individual surgical wards. Upgrade of already acquired theoretical knowledge with regular discussions on pathology of hospitalized patients at a hospital bed, at visitations or within preoperative treatment. Acquisition of knowledge of diagnostic procedures and guidelines of work for ambulatory treatment of patients and the injured. Learning on the basis of in-depth studying of individual clinical cases. Formation of a seminar assignment under the guidance of a mentor in individual area of surgery.

Načini ocenjevanja:

Delež (v %)/
Weight (in %)

Assessment:

Pogoji za pristop k preverjanju znanja

Pogoj so opravljene in evidentirane vse obveznosti iz kartona praktikuma. V okviru 6 tedenskega praktikuma mora biti zagotovljena vsaj 90 % udeležba študenta. Študent mora biti prisoten na seminarjih in mora imeti opravljen, in s strani mentorja potrjen, seminar s pozitivno oceno mentorja

Requirements for access to knowledge

checking Requirements are all completed and recorded obligations from the record of practical training. Within the six weeks of practical training at least 90% attendance of a student has to be ensured. A student has to attend the seminars and has to have a completed, and by

		his/her mentor confirmed, seminar assignment with a positive mark given by the mentor.
Oblike in način preverjanja in ocenjevanja znanja <u>Izpit je sestavljen iz :</u> <u>pisnega dela:</u> 10 vprašanj esejskega tipa ali - obravnavo posameznega kliničnega primera (opis bolezni, potrebne usmerjene preiskave, diferencialna diagnoza, terapija). <u>praktični del izpita ob pacientu</u> <u>zaključni ustni del izpita</u> Pogoj za pristop k ustnemu delu izpita je pozitivno opravljen pisni del izpita. Če študent ne opravi ustnega izpita ponavlja izpit v celoti Ocenjevalna lestvica pri pisnem izpitu: 56 % do 65 % - 6 66 % do 75 % - 7 76 % do 85 % - 8 86 % do 95 % - 9 96 % do 100 % - 10 Razmerje: pisni : ustni izpit Pisni izpit – 40 % Praktični izpit-20% Ustni izpit – 40 %	40 % 20% 40%	Forms and mode of checking and marking knowledge The exam consists of: - written part: 10 essay-type questions - or - treatment of an individual clinical case (description of a disease, necessary targeted medical examinations, differential diagnosis, therapy) - practical part of the exam by the patient's side - final oral part of the exam A requirement for access to the oral part of the exam is a positively completed written part of the exam. In case a student fails the oral exam, he/she takes the entire exam again. Grading scale in the written exam: 56% to 65% - 6 66% to 75% - 7 76% to 85% - 8 86% to 95% - 9 96% to 100% - 10 The ratio: written exam: oral exam Written exam – 40% Practical exam – 20% Oral exam – 40%
Druge informacije Praktikum se prične po objavljenem seznamu in razporeditvi študentov po posameznih oddelkih Klinike za kirurgijo UKC Maribor, prvi dan ob 8.00 uri v veliki predavalnici na 16. etaži kirurške stolpnice. Študenti, ki bodo opravljali praktikum v drugih bolnišnicah, upoštevajo navodila mentorjev v teh ustanovah in morajo opraviti predpisan obseg vsebin. Študenti izdelajo seminarsko nalogo pod nadzorom glavnega mentorja in po navodilih za pisanje člankov v ZV ali AMB. Seminarsko nalogo predstavijo v zato posebej predvidenih terminih. Predstavitve seminarskih nalog se morajo udeležiti vsi študentje, neposredni in glavni mentorji.	Other pieces of information Practical training starts after the published list and arrangement of the students by individual wards of the Clinic for Surgery of the University Clinical Centre Maribor. On the first day it begins at 8 a.m. in the large lecture room on the 16th floor of the surgical skyscraper. The students who will perform practical training in other hospitals take into consideration the instructions of the mentors in these institutions and have to complete the prescribed volume of content. The students make a seminar assignment under the monitoring of the main mentor and according to instructions for writing articles in the journal ZV (the medical journal Zdravniški Vestnik) or the journal AMB (the medical journal Acta Medico-Biotechnica). The seminar assignment is presented on for this especially scheduled dates. All students, immediate and main mentors have to attend the presentation of seminar assignments.	

Reference nosilca / Lecturer's references:
ANTON CRNJAC:
ANTON CRNJAC:

- PRIMOŽIČ, Mateja, KRAVANJA, Gregor, KNEZ, Željko, CRNJAC, Anton, LEITGEB, Maja. Immobilized laccase in the form of (magnetic) cross-linked enzyme aggregates for sustainable diclofenac (bio)degradation. *Journal of cleaner*

- production. [Print ed.]. 1 Dec. 2020, vol. 275, str. 1-16. ISSN 0959-6526. DOI: [10.1016/j.jclepro.2020.124121](https://doi.org/10.1016/j.jclepro.2020.124121). [COBISS.SI-ID [27965955](#)], [JCR, SNIP, WoS do 8. 11. 2022: št. citatov (TC): 41, čistih citatov (CI): 39, čistih citatov na avtorja (CIAu): 7,80, Scopus do 4. 1. 2023: št. citatov (TC): 46, čistih citatov (CI): 44, čistih citatov na avtorja (CIAu): 8,80]
2. KAMARAJAH, S.K., NEPOGODIEV, Dmitri, BEKELE, A., CECCONELLO, I., EVANS, R.P.T., GUNER, A., GOSSAGE, J.A., HARUSTIAK, T., HODSON, J., ISIK, A., et al., GAČEVSKI, Goran (927), CRNJAC, Anton (927), HORVAT, Samo (927), et al., Oesophago-Gastric Anastomotic Audit (OGAA) Collaborative. Mortality from esophagectomy for esophageal cancer across low, middle, and high income countries: an international cohort study. *European journal of surgical oncology*. 2021, vol. 47, issue 6, str. 1481-1488, ilustr. ISSN 1532-2157. <https://www.sciencedirect.com/science/article/pii/S0748798320312257?via%3Dihub>, <https://doi.org/10.1016/j.ejso.2020.12.006>, DOI: [10.1016/j.ejso.2020.12.006](https://doi.org/10.1016/j.ejso.2020.12.006). [COBISS.SI-ID [59513347](#)], [JCR, SNIP, WoS do 3. 11. 2022: št. citatov (TC): 7, čistih citatov (CI): 7, čistih citatov na avtorja (CIAu): 0,25, Scopus do 9. 12. 2022: št. citatov (TC): 6, čistih citatov (CI): 6, čistih citatov na avtorja (CIAu): 0,22]
3. SKOK, Kristijan, HLADNIK, Gaja, GRM, Anja, CRNJAC, Anton. Malignant pleural effusion and its current management : a review. *Medicina*. 2019, vol. 55, iss. 8, str. [1]-21, ilustr. ISSN 1648-9144. <https://doi.org/10.3390/medicina55080490>, <https://www.mdpi.com/1010-660X/55/8/490>, DOI: [10.3390/medicina55080490](https://doi.org/10.3390/medicina55080490). [COBISS.SI-ID [6754879](#)], [JCR, SNIP, WoS do 24. 11. 2022: št. citatov (TC): 32, čistih citatov (CI): 32, čistih citatov na avtorja (CIAu): 8,00, Scopus do 28. 12. 2022: št. citatov (TC): 34, čistih citatov (CI): 34, čistih citatov na avtorja (CIAu): 8,50]
4. SKOK, Kristijan, VIDOVIČ, Damjan, GAČEVSKI, Goran, VEINGERL, Bojan, AUDA, Jure, CRNJAC, Anton. Surgical treatment in severely immunocompromised patient with invasive fungal infection = Kirurško zdravljenje imunokompromitiranega bolnika z invazivno glivično okužbo. *Acta medico-biotechnica : AMB*. [Tiskana izd.]. 2020, vol. 13, [no.] 1, str. 59-63, ilustr. ISSN 1855-5640. http://actamedbio.mf.um.si/revija/2020/01_amb24_clanek_189-18.pdf. [COBISS.SI-ID [20154115](#)]