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| **Naziv predmeta** | **Medicina budućnosti** |
| **Kod** | MFMI… | Godina studija | 3. ili više |
| **Nositelj/i predmeta** | Doc. dr. sc. Ivana Kolčić | Bodovna vrijednost (ECTS) |      2 |
| Suradnici | Izv. prof. Ozren Polašek | Način izvođenja nastave (broj sati u semestru) | P | S | V | T |  |
| 5 | 20 | 0 | 25 |
| Status predmeta |      Izborni | Postotak primjene e-učenja  |      0 |
| **OPIS PREDMETA** |
| Ciljevi predmeta | Cilj predmeta je prikazati mijenjajući krajobraz biomedicinskih znanosti i kliničke medicine |
| Uvjeti za upis predmeta i ulazne kompetencije potrebne za predmet | Nema  |
| Očekivani ishodi učenja na razini predmeta (4-10 ishoda učenja)  | Biti spremni za prihvaćanje promjena u medicini koja se kontinuirano mijenja; identificirati vjerodostojne izvore informacija; biti kompetentan u pretraživanju postojećih izvora podataka o najnovijim dostignućima i tehnološkom napretku u medicini; kritički razmišljati o mogućim pravcima razvoja medicine u bliskoj i dalekoj budućnosti; razumijevanje pokretača promjena u medicinskoj praksi |
| Sadržaj predmeta detaljno razrađen prema satnici nastave  | Medicina i društvo: prošlost i budućnost (2P)Najveće pogreške u povijesti medicine – lekcije koje ne smijemo zaboraviti (1S)Najveća dostignuća u medicini (1S)Uloga tehnologije u medicini budućnosti (1S)Budućnost transplantacijske medicine (1S)Budućnost kirurgije i robotike u medicini (1S)Genetika u medicini budućnosti (1S)Biobanke i budućnost medicine (1S)Genetika u javnoj domeni i privatna upotreba genetičkih usluga (2S)Tko želi živjeti zauvijek? (1S)Razvoj novih lijekova – trošak u odnosu prema koristima? (1S)Globalni izazovi za zdravlje i medicina budućnosti (2P)Promjene u društvu: zahtjevi i opterećenje na zdravstvenu zaštitu – demografske promjene, ekonomske i okolišne promjene (2S)Zarazne bolesti budućnosti i rezistencija na antibiotike (2S)Pandemija kroničnih nezaraznih bolesti – trendovi i očekivanja u budućnosti (2S)Liječnik budućnosti (2S)Budućnost medicine – gdje i kada možemo očekivati najveće promjene? (1P, 1S) |
| Vrste izvođenja nastave: | x predavanjax seminari i radionice ☐ vježbe ☐ *on line* u cijelosti☐ mješovito e-učenje☐ terenska nastava | x samostalni zadaci ☐ multimedija ☐ laboratorij☐mentorski rad☐       (ostalo upisati) |
|
| Obveze studenata | Nazočnost na nastavi 80% predavanja, 90% seminari i 100% vježbe |
| Praćenje rada studenata *(upisati udio u ECTS bodovima za svaku aktivnost tako da ukupni broj ECTS bodova odgovara bodovnoj vrijednosti predmeta):* | Pohađanje nastave | 0,5 |  |       |  |       |
| Seminarski rad | 0,75 |  |       |       (Ostalo upisati) |       |
| Usmeni ispit | 0,75 |  |       |       (Ostalo upisati) |       |
|  |       |  |       |       (Ostalo upisati) |       |
|  |       |  |       |       (Ostalo upisati) |       |
| Ocjenjivanje i vrjednovanje rada studenata tijekom nastave i na završnom ispitu | Kritička rasprava, izrađen i prezentiran seminarski rad |
| Obvezna literatura (dostupna u knjižnici i putem ostalih medija) | **Naslov** | **Broj primjeraka u knjižnici** | **Dostupnost putem ostalih medija** |
| PredavanjaOdabrani znanstveni radovi (PubMed)Ostali relevantni izvori s Interneta (YouTube, službene web stranice različitih znanstvenih instituta i organizacija) |       |  |
| Dopunska literatura  |  |
| Načini praćenja kvalitete koji osiguravaju stjecanje utvrđenih ishoda učenja | -Analiza kvalitete nastave od strane studenata i nastavnika, -Analiza prolaznosti na ispitima, -Izvješća Povjerenstva za kontrolu provedbe nastave, -Izvaninstitucijska evaluacija (posjet timova za kontrolu kvalitete Nacionalne agencije za kontrolu kvalitete, uključenje u TEEP). |
| Ostalo (prema mišljenju predlagatelja) |       |

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| **NAME OF THE COURSE** | Medicine of the future |
| **Code** | MFMI… | Year of study | 3rd or more |
| Course teacher | Assist. Professor Ivana Kolcic | Credits (ECTS) | 2 |
| Associate teachers | Professor Ozren Polasek | Type of instruction (number of hours) | L | S | E | T |
| 5 | 20 | 0 | 25 |
| Status of the course | Elective | Percentage of application of e-learning | 0% |
| **COURSE DESCRIPTION** |
| Course enrolment requirements and entry competences required for the course | None |
| Learning outcomes expected at the level of the course (4 to 10 learning outcomes) | To be prepared to embrace the changes in ever-changing field of medicine; to identify credible sources of information; to be competent in searching the existing data sources on the latest developments and technological advances in medicine; to think critically about the possible directions of development of medicine in the near and more distant future; to understanding the forces behind the changes in medical practices |
| Course content broken down in detail by weekly class schedule (syllabus) | Medicine and society: the past and the future (2h lecture)Biggest medicinal mistakes of the past - lessons not to be forgotten (1h seminar)Top 10 achievements in medicine (1h seminar)The future of technology in medicine (1h seminar)The future of surgery and robotics (1h seminar)The future of transplantation medicine (1h seminar)The future of genetics (1h seminar)Biobanks and future medicine (1h seminar)Genetics in the public domain and personal use (2h seminar)Who wants to live forever? (1h seminar)Development of new medications– cost vs. gain? (1h seminar)Global health challenges and medicine in the future (2h lecture)Changing landscapes of modern society and demands on health care – demographical changes, economic, environmental changes (2h seminar)Infectious diseases of the future and antimicrobial resistance (2h seminar)Pandemics of chronic non-communicable diseases – current trends and future expectations (2h seminar)Physician of the future (2h seminar)Future of the medicine – where and when to expect the biggest change? (1h lecture, 1h seminar) |
| Format of instruction | X lecturesX seminars and workshops☐ exercises ☐ *on line* in entirety☐ partial e-learning☐ field work | x independent assignments☐ multimedia ☐ laboratory☐ work with mentor☐       (other) |
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| Student responsibilities | In accordance to Rules of studying and Deontological code for USSM students. |
| Screening student work *(name the proportion of ECTS credits for each* *activity so that the total number of ECTS credits is equal to the ECTS value of the course)* | Class attendance | 0.5 | Research |       | Practical training |       |
| Experimental work |       | Report |       |       (Other) |       |
| Essay |       | Seminar essay | 0.75 |       (Other) |       |
| Tests |       | Oral exam | 0.75 |       (Other) |       |
| Written exam |       | Project |       |       (Other) |       |
| Grading and evaluating student work in class and at the final exam | Critical discussions, seminar presentation |
| Required literature (available in the library and via other media) | **Title** | **Number of copies in the library** | **Availability via other media** |
| Lectures - handouts |       |       |
| Selected scientific papers (PubMed) |       |       |
| Other relevant sources from the Internet (YouTube, official web pages of different scientific institutes and organizations) |       |       |
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| Optional literature (at the time of submission of study programme proposal) |  |
| Quality assurance methods that ensure the acquisition of exit competences | * Teaching quality analysis by students and teachers
* Exam passing rate analysis
* Committee for control of teaching reports
* External evaluation
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| Other (as the proposer wishes to add) |       |