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| **Naziv predmeta** | | **Izborni predmet: Znanost za društvo – odgovorno istraživanje i inovacije** | | | | | | | | | | | | | |
| **Kod** | MFMI… | | | Godina studija | | 1.-6. | | | | | | | | | |
| **Nositelj/i predmeta** | Prof. dr. sc. Ana Marušić, dr. med. | | | Bodovna vrijednost (ECTS) | | 2 | | | | | | | | | |
| Suradnici | dr. sc. Shelly Pranić; Ivan Buljan, mag. psych., Ružica Tokalić, dr. med. | | | Način izvođenja nastave (broj sati u semestru) | | P | | S | V | | | T | Nastavu je moguće održavati u popodnevnim satima | | |
| 10 | |  | 15 | | |  |
| Status predmeta | Izborni | | | Postotak primjene e-učenja | |  | | | | | | | | | |
| **OPIS PREDMETA** | | | | | | | | | | | | | | | |
| Ciljevi predmeta | Upoznati studenti s principima odgovornog istraživanja i inovacija, u okviru pravila europskog istraživačkog okvira | | | | | | | | | | | | | | |
| Uvjeti za upis predmeta i ulazne kompetencije potrebne za predmet | Nema uvjeta za upis. | | | | | | | | | | | | | | |
| Očekivani ishodi učenja na razini predmeta (4-10 ishoda učenja) | -kritičko razumijevanje odgovornog istraživanja i inovacija, posebice odgovornost prema društvu  -uporaba dostupnih alata za transparentnost istraživanja  -prepoznavanje građevnih jedinica registara kliničkih ispitivanja  - razumijevanje uloge liječnika i istraživača u širenju znanja i odgovornoj primjeni rezultate istraživanja u društvu  -izrada edukativnog materijala o medicinskim istraživanjima za javnost | | | | | | | | | | | | | | |
| Sadržaj predmeta detaljno razrađen prema satnici nastave | Svaki nastavni dan započet će s 2 sata predavanja, nakon kojeg slijede 3 sata praktičnoga rada, Svaki dan bit će posvećen jednoj od glavnih aspekata odgovornog istraživanja i inovacija.  **Prvi dan:**  Predavanje: Odgovorno istraživanje  Vježbe: Rasprava kroz konkretne primjere (case studies).  **Drugi dan:**  e-Predavanje: Odgovorne inovacije  Vježbe: Rasprava kroz konkretne primjere (case studies).  **Treći dan:**  e-Predavanje: Otvoreni pristup  Vježbe: Rasprava kroz konkretne primjere (case studies).  **Četvrti dan:**  e-Predavanje: Etika u istraživanjima  Vježbe: Rasprava kroz konkretne primjere (case studies).  **Peti dan:**  Predavanje: Uključivanje javnosti/društva i upravljanje istraživanjima i inovacijama  Znanstveni kafić: odgovorna provedba istraživanja (igra s kartama) | | | | | | | | | | | | | | |
| Vrste izvođenja nastave: | ☑ predavanja  ☐ seminari i radionice  ☑ vježbe  ☐ *on line* u cijelosti  ☐ mješovito e-učenje  ☐ terenska nastava | | | | | ☑ samostalni zadaci  ☐ multimedija  ☐ laboratorij  ☐mentorski rad  ☐       (ostalo upisati) | | | | | | | | | |
|
| Obveze studenata | Nazočnost na nastavi 80% predavanja, 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 | | 0,25 | |  | |  | | |  | | | | |  |
| Seminarski rad | | 0.75 | |  | |  | | | (Ostalo upisati) | | | | |  |
| Pismeni ispit | | 1,0 | |  | |  | | | (Ostalo upisati) | | | | |  |
|  | |  | |  | |  | | | (Ostalo upisati) | | | | |  |
|  | |  | |  | |  | | | (Ostalo upisati) | | | | |  |
| Ocjenjivanje i vrjednovanje rada studenata tijekom nastave i na završnom ispitu | Pisani ispit i praktični zadatci tijekom nastave. | | | | | | | | | | | | | | |
| Obvezna literatura (dostupna u knjižnici i putem ostalih medija) | **Naslov** | | | | | | | | | | **Broj primjeraka u knjižnici** | | | **Dostupnost putem ostalih medija** | |
| Marušić M, ur. Uvod u znanstveni rad u medicini. 5. izdanje. Zagreb:Medicinska naklada; 2013. | | | | | | | | | | 20 | | |  | |
|  | RRI tools | | | | | | | | | |  | | | <http://www.rri-tools.eu> | |
|  | European Commission. Responsible Research and Innovation. Europe's ability to respond to societal challenges. | | | | | | | | | |  | | | <https://ec.europa.eu/research/swafs/pdf/pub_public_engagement/responsible-research-and-innovation-leaflet_en.pdf> | |
| Dopunska literatura | Office of Research Integrity. General resources. Dostupno na: <http://ori.hhs.gov/general-resources-0>. | | | | | | | | | | | | | | |
| 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** | | Elective course: Science for society – responsible research and innovation | | | | | | | | | | | | |
| **Code** |  | | | | Year of study | | | | 1-6 | | | | | |
| Course teacher | Prof. Ana Marušić | | | | Credits (ECTS) | | | | 2 | | | | | |
| Associate teachers | dr. Shelly Pranić, Ivan Buljan, dr. Ružica Tokalić | | | | Type of instruction (number of hours) | | | | L | S | | E | | F |
| 10 |  | | 15 | |  |
| Status of the course | Elective | | | | Percentage of application of e-learning | | | |  | | | | | |
| **COURSE DESCRIPTION** | | | | | | | | | | | | | | |
| Course objectives | To familiarize students with the responsible research and innovation (RRI), which is in the heart of research effort worldwide, including EU research programmes. | | | | | | | | | | | | | |
| Course enrolment requirements and entry competences required for the course | There are no requirements – the course is opened to all students. | | | | | | | | | | | | | |
| Learning outcomes expected at the level of the course (4 to 10 learning outcomes) | - Critical understanding of the responsible research and innovation, especially the responsibility of science to society  - Use available tools for research transparency  - Recognition of structure of clinical trial registries  - Understanding the role of medical doctors and researcher in knowledge dissemination and responsible application of research in society  - Creation of educational material about medical research for the public. | | | | | | | | | | | | | |
| Course content broken down in detail by weekly class schedule (syllabus) | Each day will start with 2 hours of lectures, followed by 3 hours of practical work. Each day will be dedicated to important aspects of responsible research and innovation.  **Day 1**  Lecture: Responsible research  Practical: Discussion of case studies  **Day 2**  e-Lecture: Responsible innovation  Practical: Discussion of case studies  **Day 3**  e-Lecture: Open access  Practical: Discussion of case studies  **Day 4**  e-Lecture: Ethics in research  Practical: Discussion of case studies  **Day 5**  Lecture: Including public in research, responsible governance of research and innovation  Science Café: card game on responsible conduct of research | | | | | | | | | | | | | |
| Format of instruction | ☒ lectures  ☒ exercises  ☐ mixed e-learning  ☒ independent assignments | | | | |  | | | | | | | | |
|
| Student responsibilities | Presence at teaching activities: 80% lectures, 100% exercises. | | | | | | | | | | | | | |
| 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 | | 0.25 | Individual assignments (Course essay) | | | 0.75 | Final essay | | | | | 1,0 | |
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| Grading and evaluating student work in class and at the final exam | Written test and course assignments | | | | | | | | | | | | | |
| Required literature (available in the library and via other media) | **Title** | | | | | | | | **Number of copies in the library** | | **Availability via other media** | | | |
| Marušić M, ur. Principles of Research in Biomedicine and Health. Zagreb: Medicinska naklada; 2015. | | | | | | | | 5 | | - | | | |
| RRI tools | | | | | | | | - | | <http://www.rri-tools.eu> | | | |
| European Commission. Responsible Research and Innovation. Europe's ability to respond to societal challenges. | | | | | | | | - | | <https://ec.europa.eu/research/swafs/pdf/pub_public_engagement/responsible-research-and-innovation-leaflet_en.pdf> | | | |
| Optional literature (at the time of submission of study programme proposal) | Office of Research Integrity. General resources. Dostupno na: <http://ori.hhs.gov/general-resources-0>. | | | | | | | | | | | | | |
| Quality assurance methods that ensure the acquisition of exit competences | Quality assessment during classes by students and teachers.  Analysis of course examination success.  Report of the Committee for quality assurance.  External evaluation (reaccreditation assessment from the Agency for Higher Education and Research) | | | | | | | | | | | | | |
| Other (as the proposer wishes to add) |  | | | | | | | | | | | | | |