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| **NAME OF THE COURSE** | “Test tube” baby |
| **Code** |  | Year of study | 1-6 |
| Course teacher | Assist. prof. Snježana Mardešić | Credits (ECTS) | 2 |
| Associate teachers | Associate prof. Katarina Vukojević | 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 | Understanding and gaining knowledge about the increasing occurrence of infertility, its causes and treatments. |
| 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) | Identify, describe and explain the most important causes of male and female infertility.Name and explain different types of assisted reproduction techniquesIdentify and explain the positive and negative sides of assisted fertilization.Critically judge educational materials (articles and lectures), participate in argumentative discussions and construct opinions. |
| Course content broken down in detail by weekly class schedule (syllabus) | Lectures Number of hours:Anatomy of genital tract 2Embryology of genital tract 1History of “test tube baby” 2Causes of male and female infertility 3Types of assisted reproduction techniques 2 Seminar Number of hours:IVF and age? 4Sperm selection: What can we learn from mother Nature? 4Surrogacy : moral and ethical issue 4Chromosomes in Humans 3 |
| Format of instruction | ☒ lectures☒ seminars and workshops |  |
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| Student responsibilities |       |
| 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)* | Oral examination (2 ECTS) |  |  |  |  |  |
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| Grading and evaluating student work in class and at the final exam | Students will have an assignment in which they need to analyze an article and write an essay and discuss it.  |
| Required literature (available in the library and via other media) | **Title** | **Number of copies in the library** | **Availability via other media** |
| Assisted Reproductive Technology National Summary Report, US DEPARTMENT OF HEALTH AND HUMAN SERVICES Centers for Disease Control and Prevention, 2014 |       | Online |
| Tan TY, Lau SK, Loh SF, Tan HH., Female ageing and reproductive outcome in assisted reproduction cycles. Singapore Med J. 2014 Jun;55(6):305-9. |       | Online |
| [Pokulniewicz M](http://www.ncbi.nlm.nih.gov/pubmed/?term=Pokulniewicz%20M%5BAuthor%5D&cauthor=true&cauthor_uid=26327892), [Issat T](http://www.ncbi.nlm.nih.gov/pubmed/?term=Issat%20T%5BAuthor%5D&cauthor=true&cauthor_uid=26327892), [Jakimiuk A](http://www.ncbi.nlm.nih.gov/pubmed/?term=Jakimiuk%20A%5BAuthor%5D&cauthor=true&cauthor_uid=26327892). In vitro fertilization and age. When old is too old? [Prz Menopauzalny.](http://www.ncbi.nlm.nih.gov/pubmed/26327892) 2015 Mar;14(1):71-3  |       | Online |
| [Sharma R](http://www.ncbi.nlm.nih.gov/pubmed/?term=Sharma%20R%5BAuthor%5D&cauthor=true&cauthor_uid=25928123) , [Agarwal A](http://www.ncbi.nlm.nih.gov/pubmed/?term=Agarwal%20A%5BAuthor%5D&cauthor=true&cauthor_uid=25928123), [Rohra VK](http://www.ncbi.nlm.nih.gov/pubmed/?term=Rohra%20VK%5BAuthor%5D&cauthor=true&cauthor_uid=25928123), [Assidi M](http://www.ncbi.nlm.nih.gov/pubmed/?term=Assidi%20M%5BAuthor%5D&cauthor=true&cauthor_uid=25928123), [Abu-Elmagd M](http://www.ncbi.nlm.nih.gov/pubmed/?term=Abu-Elmagd%20M%5BAuthor%5D&cauthor=true&cauthor_uid=25928123). [Turki RF](http://www.ncbi.nlm.nih.gov/pubmed/?term=Turki%20RF%5BAuthor%5D&cauthor=true&cauthor_uid=25928123). Effects of increased paternal age on sperm quality, reproductive outcome and associated epigenetic risks to offspring. [Reprod Biol Endocrinol.](http://www.ncbi.nlm.nih.gov/pubmed/25928123) 2015 Apr 19;13:35. |       | Online |
| [Deonandan R](http://www.ncbi.nlm.nih.gov/pubmed/?term=Deonandan%20R%5BAuthor%5D&cauthor=true&cauthor_uid=26316832). Recent trends in reproductive tourism and international surrogacy: ethical considerations and challenges for policy. [Risk Manag Healthc Policy.](http://www.ncbi.nlm.nih.gov/pubmed/26316832) 2015 Aug 17;8:111-9 |       | Online |
| [Saxena P](http://www.ncbi.nlm.nih.gov/pubmed/?term=Saxena%20P%5BAuthor%5D&cauthor=true&cauthor_uid=23293432), [Mishra A](http://www.ncbi.nlm.nih.gov/pubmed/?term=Mishra%20A%5BAuthor%5D&cauthor=true&cauthor_uid=23293432), [Malik S](http://www.ncbi.nlm.nih.gov/pubmed/?term=Malik%20S%5BAuthor%5D&cauthor=true&cauthor_uid=23293432). Surrogacy: Ethical and legal issues. [Indian J Community Med.](http://www.ncbi.nlm.nih.gov/pubmed/23293432)2012 Oct;37(4):211-3 |       | Online |
| [Sakkas D](http://www.ncbi.nlm.nih.gov/pubmed/?term=Sakkas%20D%5BAuthor%5D&cauthor=true&cauthor_uid=26386468), [Ramalingam M](http://www.ncbi.nlm.nih.gov/pubmed/?term=Ramalingam%20M%5BAuthor%5D&cauthor=true&cauthor_uid=26386468), [Garrido N](http://www.ncbi.nlm.nih.gov/pubmed/?term=Garrido%20N%5BAuthor%5D&cauthor=true&cauthor_uid=26386468), [Barratt CL](http://www.ncbi.nlm.nih.gov/pubmed/?term=Barratt%20CL%5BAuthor%5D&cauthor=true&cauthor_uid=26386468). Sperm selection in natural conception: what can we learn from Mother Nature to improve assisted reproduction outcomes? [Hum Reprod Update.](http://www.ncbi.nlm.nih.gov/pubmed/26386468) 2015 Nov;21(6):711-26 |       | Online |
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| Optional literature (at the time of submission of study programme proposal) | Sadler TW. , Langman’s Medical Embryology, Lippincott Williams and Wilkins, USA, 2012Netter FH. Atlas of human anatomy. Basel: Novartis, 1998Handouts from lectures |
| Quality assurance methods that ensure the acquisition of exit competences | Quality control analysis by the students and peers, Passing exams proportion analysis, University of Split Committee for the teaching quality control report, Extramural evaluation (National agency team for quality control, TEEP) |
| Other (as the proposer wishes to add) |  |

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| **Naziv predmeta** | **Dijete „iz epruvete“** |
| Kod | MFMI… | Godina studija | sve. |
| Nositelj/i predmeta | Doc. dr. sc. Snježana Mardešić, dr. med., | Bodovna vrijednost (ECTS) | 2 |
| Suradnici | izv. prof. dr. sc. Katarina Vukojević, doc. dr. sc. Sandra Kostić | Način izvođenja nastave (broj sati u semestru) | P | S | V | T |  |
| 10 | 15 |  |  |
| Status predmeta | Izborni | Postotak primjene e-učenja  |  |
| **OPIS PREDMETA** |
| Ciljevi predmeta | Razumijevanje i stjecanje znanja o sve većoj pojavi neplodnosti, njenim uzrocima i načinu liječenja. |
| Uvjeti za upis predmeta i ulazne kompetencije potrebne za predmet | nema |
| Očekivani ishodi učenja na razini predmeta (4-10 ishoda učenja)  | Identificirati, opisati i objasniti najvažnije uzroke muške i ženske neplodnosti.Navesti i objasniti različite vrste tehnika potpomognute oplodnje.Identificirati i objasniti pozitivne i negativne strane potpomognute oplodnje.Kritički proučiti edukativne materijale (članke i predavanja), sudjelovati u raspravama i izgraditi konstruktivno mišljenje. |
| Sadržaj predmeta detaljno razrađen prema satnici nastave  | Predavanja: Broj sati:Anatomija genitalnog trakta 2Embriologija genitalnog trakta 1Dijete „iz epruvete“ kroz povijest 2 Uzroci muške i ženske neplodnosti 3Vrste i tehnike potpomognute oplodnje 2Seminari:IVF i dob? 4 „Spermalna selekcija“: (Što možemo naučiti od majke prirode?) 4 Surogat majčinstvo: moralni i etički problem 4 Kromosomi kod ljudi 3 |
| Vrste izvođenja nastave: | ☐ *predavanja i seminari* |  |
|
| 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 |  |  |  |  |  |
| Esej |  |  |  |  |  |
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| Ocjenjivanje i vrjednovanje rada studenata tijekom nastave i na završnom ispitu | Analiza članka |
| Obvezna literatura (dostupna u knjižnici i putem ostalih medija) | **Naslov** | **Broj primjeraka u knjižnici** | **Dostupnost putem ostalih medija** |
| Assisted Reproductive Technology National Summary Report, US DEPARTMENT OF HEALTH AND HUMAN SERVICES Centers for Disease Control and Prevention, 2014 |       | *online* |
|  | Tan TY, Lau SK, Loh SF, Tan HH., Female ageing and reproductive outcome in assisted reproduction cycles. Singapore Med J. 2014 Jun;55(6):305-9. |
|  | [Pokulniewicz M](http://www.ncbi.nlm.nih.gov/pubmed/?term=Pokulniewicz%20M%5BAuthor%5D&cauthor=true&cauthor_uid=26327892), [Issat T](http://www.ncbi.nlm.nih.gov/pubmed/?term=Issat%20T%5BAuthor%5D&cauthor=true&cauthor_uid=26327892), [Jakimiuk A](http://www.ncbi.nlm.nih.gov/pubmed/?term=Jakimiuk%20A%5BAuthor%5D&cauthor=true&cauthor_uid=26327892). In vitro fertilization and age. When old is too old? [Prz Menopauzalny.](http://www.ncbi.nlm.nih.gov/pubmed/26327892) 2015 Mar;14(1):71-3  |
|  | [Sharma R](http://www.ncbi.nlm.nih.gov/pubmed/?term=Sharma%20R%5BAuthor%5D&cauthor=true&cauthor_uid=25928123) , [Agarwal A](http://www.ncbi.nlm.nih.gov/pubmed/?term=Agarwal%20A%5BAuthor%5D&cauthor=true&cauthor_uid=25928123), [Rohra VK](http://www.ncbi.nlm.nih.gov/pubmed/?term=Rohra%20VK%5BAuthor%5D&cauthor=true&cauthor_uid=25928123), [Assidi M](http://www.ncbi.nlm.nih.gov/pubmed/?term=Assidi%20M%5BAuthor%5D&cauthor=true&cauthor_uid=25928123), [Abu-Elmagd M](http://www.ncbi.nlm.nih.gov/pubmed/?term=Abu-Elmagd%20M%5BAuthor%5D&cauthor=true&cauthor_uid=25928123). [Turki RF](http://www.ncbi.nlm.nih.gov/pubmed/?term=Turki%20RF%5BAuthor%5D&cauthor=true&cauthor_uid=25928123). Effects of increased paternal age on sperm quality, reproductive outcome and associated epigenetic risks to offspring. [Reprod Biol Endocrinol.](http://www.ncbi.nlm.nih.gov/pubmed/25928123) 2015 Apr 19;13:35. |
|  | [Deonandan R](http://www.ncbi.nlm.nih.gov/pubmed/?term=Deonandan%20R%5BAuthor%5D&cauthor=true&cauthor_uid=26316832). Recent trends in reproductive tourism and international surrogacy: ethical considerations and challenges for policy. [Risk Manag Healthc Policy.](http://www.ncbi.nlm.nih.gov/pubmed/26316832) 2015 Aug 17;8:111-9 |
|  | [Saxena P](http://www.ncbi.nlm.nih.gov/pubmed/?term=Saxena%20P%5BAuthor%5D&cauthor=true&cauthor_uid=23293432), [Mishra A](http://www.ncbi.nlm.nih.gov/pubmed/?term=Mishra%20A%5BAuthor%5D&cauthor=true&cauthor_uid=23293432), [Malik S](http://www.ncbi.nlm.nih.gov/pubmed/?term=Malik%20S%5BAuthor%5D&cauthor=true&cauthor_uid=23293432). Surrogacy: Ethical and legal issues. [Indian J Community Med.](http://www.ncbi.nlm.nih.gov/pubmed/23293432)2012 Oct;37(4):211-3 |
| Dopunska literatura  | Sadler T.W. Langmanova medicinska embriologija., Lippincott Williams and Wilkins, USA, 2012 |
| Načini praćenja kvalitete koji osiguravaju stjecanje utvrđenih ishoda učenja | **-** Analiza kvalitete nastave od strane studenata i nastavnika, - Analiza prolaznosti na ispitima- Izvješće 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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