Faculty of Medicine in Rijeka

Curriculum
2025/2026

For course

COVID-19: nova patofiziološka noksa

Study program:	**Medicina (R)** (elective) University integrated undergraduate and graduate study
Department:	**Department of Physiology, Immunology and Pathophysiology**
Course coordinator:	**prof. dr. sc. Mrakovčić-Šutić Ines, dr. med.**
Year of study:	**3**
ECTS:	**1.5**
Incentive ECTS:	**0 (0.00%)**
Foreign language:	**No**

Course information:

S obzirom da se radi o novoj patofiziološkoj noksi koja je u izuzetno kratko vrijeme polučila ogroman utjecaj na zdravstvo u cjelini i prouzročila razvoj složene patofiziološke slike bolesti, mišljenja smo da kao Zavod za fiziologiju i imunologiju, trebamo ponuditi studentima da u okviru izbornog kolegija dobiju pregled najnovijih dostupnih saznanja iz relevantne literature o COVID-19 agensu, te je upravo to cilj ovog izbornog kolegija. Predviđeno je gostovanje kliničara sa najnovijim kliničkim podacima.

- Karakteristike virusa
- Patofiziologija bolesti
- COVID-19 i imunološki sustav
- Znaci i stupnjevi bolesti
- Laboratorijski nalazi
- Liječenje
- Komplikacije bolesti
- Uloga komorbiditeta u prognozi bolesti
- Uloga dobi u prognozi bolesti
- COVID-19 i reumatske bolesti
- COVID-19 i šećerna bolest
- COVID-19 i upalne bolesti crijeva
- Razumijeti karakteristike virusne infekcije COVID-om 19
- Razumijeti patofiziološku sliku bolesti
- Razumijeti specifične laboratorijske testove
- Razumijeti smjernice terapije

List of assigned reading:

Nastavni sadržaji prezentirani tijekom nastave

List of optional reading:

1. King's Critical Care – Evidence Summary Clinical Management of COVID-19
2. Shi Y, Wang Y, Shao C i sur. COVID-19 infection: the perspectives on immune responses. Cell Death Differ. 2020 May;27(5):1451-1454
3. Tufan A, Avanoğlu Güler A, Matucci-Cerinic M. COVID-19, immune system response, hyperinflammation and repurposing antirheumatic drugs. Turk J Med Sci. 2020 Apr 21;50(SI-1):620-632
4. Sarzi-Puttini P, Giorgi V, Sirotti S. i sur. COVID-19, cytokines and immunosuppression: what can we learn from severe acute respiratory syndrome? Clin Exp Rheumatol. 2020 Mar-Apr;38(2):337-342
5. Sohrabi C, Alsafi Z, O'Neill N, Khan M, Kerwan A, Al-Jabir A, Iosifidis C, Agha R. World Health Organization declares global emergency: A review of the 2019 novel coronavirus (COVID-19). Int J Surg. 2020 Apr;76:71-76
6. Khan S, Siddique R, Shereen MA, Ali A, Liu J, Bai Q, Bashir N, Xue M. Emergence of a Novel Coronavirus, Severe Acute Respiratory Syndrome Coronavirus 2: Biology and Therapeutic Options. J Clin Microbiol. 2020 Apr 23;58(5).
7. Guo YR, Cao QD, Hong ZS, Tan YY, Chen SD, Jin HJ, Tan KS, Wang DY, Yan Y[7]. The origin, transmission and clinical therapies on coronavirus disease 2019 (COVID-19) outbreak - an update on the status. Mil Med Res. 2020 Mar 13;7(1):11
8. Singhal T. A Review of Coronavirus Disease-2019 (COVID-19). Indian J Pediatr. 2020 Apr;87(4):281-286.
9. Adhikari SP, Meng S, Wu YJ, Mao YP, Ye RX, Wang QZ, Sun C, Sylvia S, Rozelle S, Raat H, Zhou H. Epidemiology, causes, clinical manifestation and diagnosis, prevention and control of coronavirus disease (COVID-19) during the early outbreak period: a scoping review. Infect Dis Poverty. 2020 Mar 17;9(1):29
10. Yan Y, Shin WI, Pang YX, Meng Y, Lai J, You C, Zhao H, Lester E, Wu T[7], Pang CH[7]. The First 75 Days of Novel Coronavirus (SARS-CoV-2) Outbreak: Recent Advances, Prevention, and Treatment. Int J Environ Res Public Health. 2020 Mar 30;17(7).

Curriculum:

Lectures list (with titles and explanation):

P1: Uvod; COVID-19: povijesni prikaz i aktivnosti SZO

Razumijeti početak pandemije COVID-19. Epidemiološke karakteristike

P2: Patofiziologija COVID-19

Karakteristike patofizioloških promjena tijekom COVID-19 infekcije

P3: PostCOVID syndrom

Simptomi i terapeutske smjernice tijekom razvijenog PostCovid-19 sy

P4: COVID-19 i poremećaji zgrušavanja

Razumijeti i objasniti poremećaje zgrušavanja tijekom COVID-19 infekcije i cijepljenja

P5: COVID-19 Vakcine

Objasniti specifičnosti pojedinih vakcina

P6: COVID-19 i respiracijske bolesti

Pneumonia tijekom COVID-19 infekcije; Covid-19 i astma; Covid-19 i KOBP

P7: COVID-19 i kardiovaskularni poremećaji

Ishemična srčana bolest i COVID-19; Aritmije i Covid-19; Srčana dekompenzacija i Covid-19

Seminars list (with titles and explanation):

S1: COVID-19 i sportske aktivnosti

Povratak sportu nakon Covid-19 infekcije; Komplikacije vezane uz Covid-19 u profesionalnom sportu

S2: COVID-19 i metabolički sindrom

Covid-19 i pretilost; Covid-19 i diabetes mellitus

S3: COVID-19 i Vitamin D

Važnost Vitamina D tijekom Covid-19 infekcije

S4: COVID-19 i trudnoća

Osobitosti Covid-19 infekcije u trudnica; Covid-19 i dojenje

S5: COVID-19 i IBD

Karakeristike Covid-19 infekcije u IBD. Promjene mikrobiote crijeva tijekom Covid-19

Student obligations:

Redovito pohađanje nastave, pisanje seminarskog rada.

Exam (exam taking, description of the written/oral/practical part of the exam, point distribution, grading criteria):

Završna ocjena znanja studenta formira se na temelju ocjene stečene tijekom nastave (70% ukupne ocjene) i na temelju provjere znanja na završnom ispitu (30% ukupne ocjene). Tijekom nastave, studentov rad biti će vrednovan i ocijenjen na temelju izrade seminarskog rada kojeg studenti izrađuju u malim grupama te ga prezentiraju tijekom održavanja seminara.

Other notes (related to the course) important for students:

-

COURSE HOURS 2025/2026

COVID-19: nova patofiziološka noksa

Lectures (Place and time or group)	**Seminars** (Place and time or group)
15.04.2026	

P1: Uvod; COVID-19: povijesni prikaz i aktivnosti SZO:
• ONLINE (18:00 - 21:45) [214]
  ○ CNPN
 	
P2: Patofiziologija COVID-19:
• ONLINE (18:00 - 21:45) [214]
  ○ CNPN	

prof. dr. sc. Mrakovčić-Šutić Ines, dr. med. [214]	
20.04.2026	
P3: PostCOVID syndrom: • ONLINE (17:00 - 19:15) [214] ○ CNPN	
prof. dr. sc. Mrakovčić-Šutić Ines, dr. med. [214]	
18.06.2026	

P4: COVID-19 i poremećaji zgrušavanja:
• ONLINE (17:00 - 21:30) [214]
  ○ CNPN
 	
P5: COVID-19 Vakcine:
• ONLINE (17:00 - 21:30) [214]
  ○ CNPN	

prof. dr. sc. Mrakovčić-Šutić Ines, dr. med. [214]	
19.06.2026	

P6: COVID-19 i respiracijske bolesti:
• ONLINE (17:00 - 21:30) [214]
  ○ CNPN
 	
P7: COVID-19 i kardiovaskularni poremećaji:
• ONLINE (17:00 - 21:30) [214]
  ○ CNPN	

prof. dr. sc. Mrakovčić-Šutić Ines, dr. med. [214]	
23.06.2026	

	S1: COVID-19 i sportske aktivnosti:
	• ONLINE (17:00 - 20:45) [214]
	  ◦ CNPN
	
	S2: COVID-19 i metabolički sindrom:
	• ONLINE (17:00 - 20:45) [214]
	  ◦ CNPN
	
	S3: COVID-19 i Vitamin D:
	• ONLINE (17:00 - 20:45) [214]
	  ◦ CNPN
	
	S4: COVID-19 i trudnoća:
	• ONLINE (17:00 - 20:45) [214]
	  ◦ CNPN
	
	S5: COVID-19 i IBD:
	• ONLINE (17:00 - 20:45) [214]
	  ◦ CNPN

prof. dr. sc. Mrakovčić-Šutić Ines, dr. med. [214]	

List of lectures, seminars and practicals:

LECTURES (TOPIC)	Number of hours	Location
P1: Uvod; COVID-19: povijesni prikaz i aktivnosti SZO	2	ONLINE
P2: Patofiziologija COVID-19	3	ONLINE
P3: PostCOVID syndrom	3	ONLINE
P4: COVID-19 i poremećaji zgrušavanja	3	ONLINE
P5: COVID-19 Vakcine	3	ONLINE
P6: COVID-19 i respiracijske bolesti	3	ONLINE
P7: COVID-19 i kardiovaskularni poremećaji	3	ONLINE

SEMINARS (TOPIC)	Number of hours	Location
S1: COVID-19 i sportske aktivnosti	1	ONLINE
S2: COVID-19 i metabolički sindrom	1	ONLINE
S3: COVID-19 i Vitamin D	1	ONLINE
S4: COVID-19 i trudnoća	1	ONLINE
S5: COVID-19 i IBD	1	ONLINE

EXAM DATES (final exam):