

## 2020/2021-es tanév I. félévére meghirdetni kívánt PhD kurzus

Kurzus magyar címe: COVID-19 pándémia  
Kurzus angol címe: COVID-19 pandemic  
Kurzus nyelve: angol

Tárgy Neptun kódja: OT-EGDI-T136  
Tárgyfelelős neve, elérhetősége: Dr. Sándor János, janos.sandor@med.unideb.hu, 20/9323140  
Tárgyfelelős Neptun kódja: AXQ6NP

Kreditpont: 1  
Követelmény: teszt vizsga  
Óraszám/félév: 15 óra  
Maximum hallgatói létszám: 50

Tárgy rövid leírása magyarul:

A kurzus összefoglalja a COVID-19 járvány legfontosabb jellemzőit a legfrissebb kutatási eredmények alapján az alábbi szempontokból:

A SARS-CoV-2 vírus járványtani tulajdonságát meghatározó mikrobiológiai jellemzői.

A SARS-CoV-2 vírus okozta fertőzések diagnosztikai nehézségei

A COVID-19 járványtani jellemzői

Védőoltások COVID-19 ellen

COVID-19 hatása Afrikában

A COVID-19 járvánnyal kapcsolatos munka jellemzői Afrikában

Az előadásokhoz kapcsolódnak összefoglaló közlemények, amiknek a feldolgozását a hallgatók önálló munka során végzik el. Az előadások időpontjáról a jelentkező hallgatókat e-mailen keresztül tájékoztatjuk. Az előadásokhoz kapcsolódó kiegészítő anyagok az előadásokat követően kerülnek feltöltésre az e-learning felületre. A tesztvizsga a kontaktórák és az önálló tananyag-feldolgozás témáit egyaránt lefedi.

Tárgy rövid leírása angolul:

The course summarizes the key features of the COVID-19 epidemic based on the latest research findings in the following aspects:

Microbiological characteristics which determine the epidemiological characteristics of SARS-CoV-2 virus.

Difficulties in diagnosing SARS-CoV-2 virus infections

Epidemiological characteristics of COVID-19

Vaccinations against COVID-19

Impact of COVID-19 in Africa

Epidemic control for the COVID-19 epidemic in Africa

The lectures are completed with compulsory reading materials. Students registered for the course will be informed about the dates of the lectures by e-mail. Presentations and reading materials related to the lectures will be uploaded to the e-learning system after the lectures. The test exam covers the topics of both lessons and compulsory readings.

Tudományterület: egészségtudományok  
Előzetes követelmény: nincs  
Végleges követelmény: tesztvizsga legalább elégséges szintű (50%-os) teljesítése

## COVID-19 pandemic (on-line PhD course)

### Webex links by days of the course:

#### 30 November 2020

<https://unideb.webex.com/unideb/j.php?MTID=mbc925c8904dc5c3c73df7275f9a9d66d>

#### 07 December 2020

<https://unideb.webex.com/unideb/j.php?MTID=m022c1846acc2a3b26bd4252d4efe9183>

#### 09 December 2020

<https://unideb.webex.com/unideb/j.php?MTID=mabd717c13568f94e966f08cbcf68f9d3>

#### 14 December 2020

<https://unideb.webex.com/unideb/j.php?MTID=m16f13f52deb59243fec76e8e9cb104e0>

### Lecture-1

#### **COVID-19 epidemiology: transmission, clinical characteristics and public health response**

##### **Oroszi Beatrix**

Working Group on Epidemiologic Monitoring, Ministry of Innovation and Technology, Budapest, Hungary

30 November 2020

16:00 – 16:45 (Webex course is launched 15 minutes before the lecture)

Reading materials:

1. Hu, B., Guo, H., Zhou, P. *et al.* Characteristics of SARS-CoV-2 and COVID-19. *Nat Rev Microbiol* (2020)  
<https://doi.org/10.1038/s41579-020-00459-7>
2. Elizabeth C. Lee, Nikolas I. Wada, M. Kate Grabowski, Emily S. Gurley and Justin Lessler. The engines of SARS-CoV-2 spread *Science* 370 (6515), 406-407.  
DOI: 10.1126/science.abd8755
3. O’Driscoll, M., Dos Santos, G.R., Wang, L. *et al.* Age-specific mortality and immunity patterns of SARS-CoV-2. *Nature* (2020).  
<https://doi.org/10.1038/s41586-020-2918-0>
4. European Centre for Disease prevention and Control. Rapid Risk Assessment: Increased transmission of COVID-19 in the EU/EEA and the UK – thirteenth update  
<https://www.ecdc.europa.eu/en/publications-data/covid-19-risk-assessment-increased-transmission-thirteenth-update>
5. Alwan NA, Burgess RA, Ashworth S, Beale R, Bhadelia N, Bogaert D et al. Scientific consensus on the COVID-19 pandemic: we need to act now *The Lancet* (2020),396 (10260), pp.e71-e72  
[https://doi.org/10.1016/S0140-6736\(20\)32153-X](https://doi.org/10.1016/S0140-6736(20)32153-X)

### Lecture-2

#### **SARS-CoV-2 vaccines in development. Preparation for a large-scale immunization program**

##### **Oroszi Beatrix**

Working Group on Epidemiologic Monitoring, Ministry of Innovation and Technology, Budapest, Hungary

30 November 2020

16:45 – 17:30 (Webex course is launched 15 minutes before the lecture)

Reading materials:

1. WHO: The push for a COVID-19 vaccine  
<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/covid-19-vaccines>
2. Dong Y, Dai T, Wei Y, Zhang L, Zheng M, Zhou F. A systematic review of SARS-CoV-2 vaccine candidates Signal Transduct Target Ther. 2020; 5: 237. Published online 2020 Oct 13.  
doi:[10.1038/s41392-020-00352-y](https://doi.org/10.1038/s41392-020-00352-y)
3. Poland GA, Ovsyannikova IG, Kennedy RB. SARS-CoV-2 immunity: review and applications to phase 3 vaccine candidates. Lancet. 2020 Oct 13  
doi: [10.1016/S0140-6736\(20\)32137-1](https://doi.org/10.1016/S0140-6736(20)32137-1)
4. Key aspects regarding the introduction and prioritisation of COVID-19 vaccination in the EU/EEA and the UK. ECDC Technical Report 26 Oct. 2020  
<https://www.ecdc.europa.eu/en/publications-data/key-aspects-regarding-introduction-and-prioritisation-covid-19-vaccination>

### Lecture-3

#### **The new pandemic agent: SARS-CoV-2 and what's behind it**

**Kis Zoltán**

Department of Microbiological Reference Laboratory, National Center of Public Health, Budapest, Hungary

30. November 2020.

18:00 – 18:45 (Webex course is launched 15 minutes before the lecture)

Reading materials:

Ben Hu et al. Characteristics of SARS- CoV-2 and COVID-19

<https://www.nature.com/articles/s41579-020-00459-7>

### Lecture-4

#### **Diagnostic of the SARS-CoV-2: challenges and difficulties**

**Kis Zoltán**

Department of Microbiological Reference Laboratory, National Center of Public Health, Budapest, Hungary

30. November 2020.

18:45 – 19:30 (Webex course is launched 15 minutes before the lecture)

Reading materials:

Ravi N et al, Diagnostics for SARS-CoV-2 detection: A comprehensive review of the FDA-EUA COVID-19 testing landscape

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7368663/>

Vandenberg et al, Considerations for diagnostic COVID-19 tests

<https://www.nature.com/articles/s41579-020-00461-z>

### 5.

#### **Impact of COVID-19 in Africa**

**Olaoluwa Akinwale**

Department of Public Health and Epidemiology, Nigerian Institute of Medical Research, Lagos, Nigeria

07 December 2020

18:00 – 18:45 (Webex course is launched 15 minutes before the lecture)

Reading materials:

Policy Brief: Impact of COVID-19 in Africa

[https://www.un.org/sites/un2.un.org/files/sg\\_policy\\_brief\\_on\\_covid-19\\_impact\\_on\\_africa\\_may\\_2020.pdf](https://www.un.org/sites/un2.un.org/files/sg_policy_brief_on_covid-19_impact_on_africa_may_2020.pdf)

6.

**Activities against COVID-19 in Africa**

**Olaoluwa Akinwale**

Department of Public Health and Epidemiology, Nigerian Institute of Medical Research, Lagos, Nigeria

09 December 2020

18:00 – 18:45 (Webex course is launched 15 minutes before the lecture)

Reading materials:

Response to the Novel Corona Virus (COVID-19) Pandemic across Africa: Successes, Challenges, and Implications for the Future

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7533592/pdf/fphar-11-01205.pdf>

7.

**Course summary and test exam**

**Sándor János**

Department of Public Health and Epidemiology, Faculty of Medicine, University of Debrecen, Debrecen, Hungary

14 December 2020

17:00 – 18:00 (Webex course is launched 15 minutes before the exam)