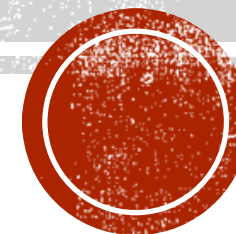




# ESTABLISHMENT AND DEVELOPMENT OF HYBRID LEARNING COURSES IN THE REPUBLIC OF SERBIA

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**Vice President of AIDASCO**

**Novi Sad, Republic of Serbia**

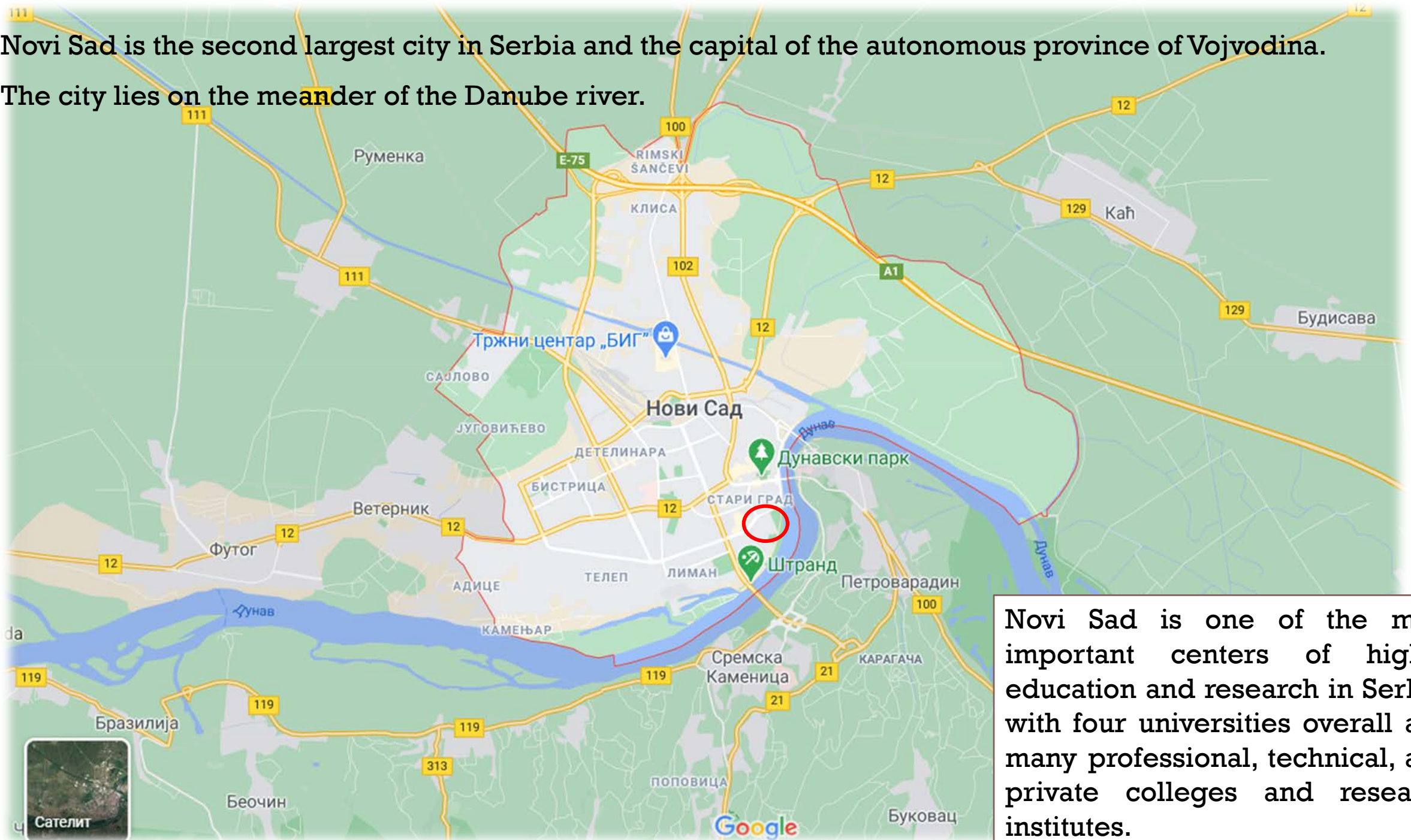
- Hybrid learning has become a useful method of learning during the period of pandemics around the world.
- Universities have established and developed their hybrid learning courses as the only option for students and professors to continue lessons online which they haven't finished in a classical, onsite, manner.



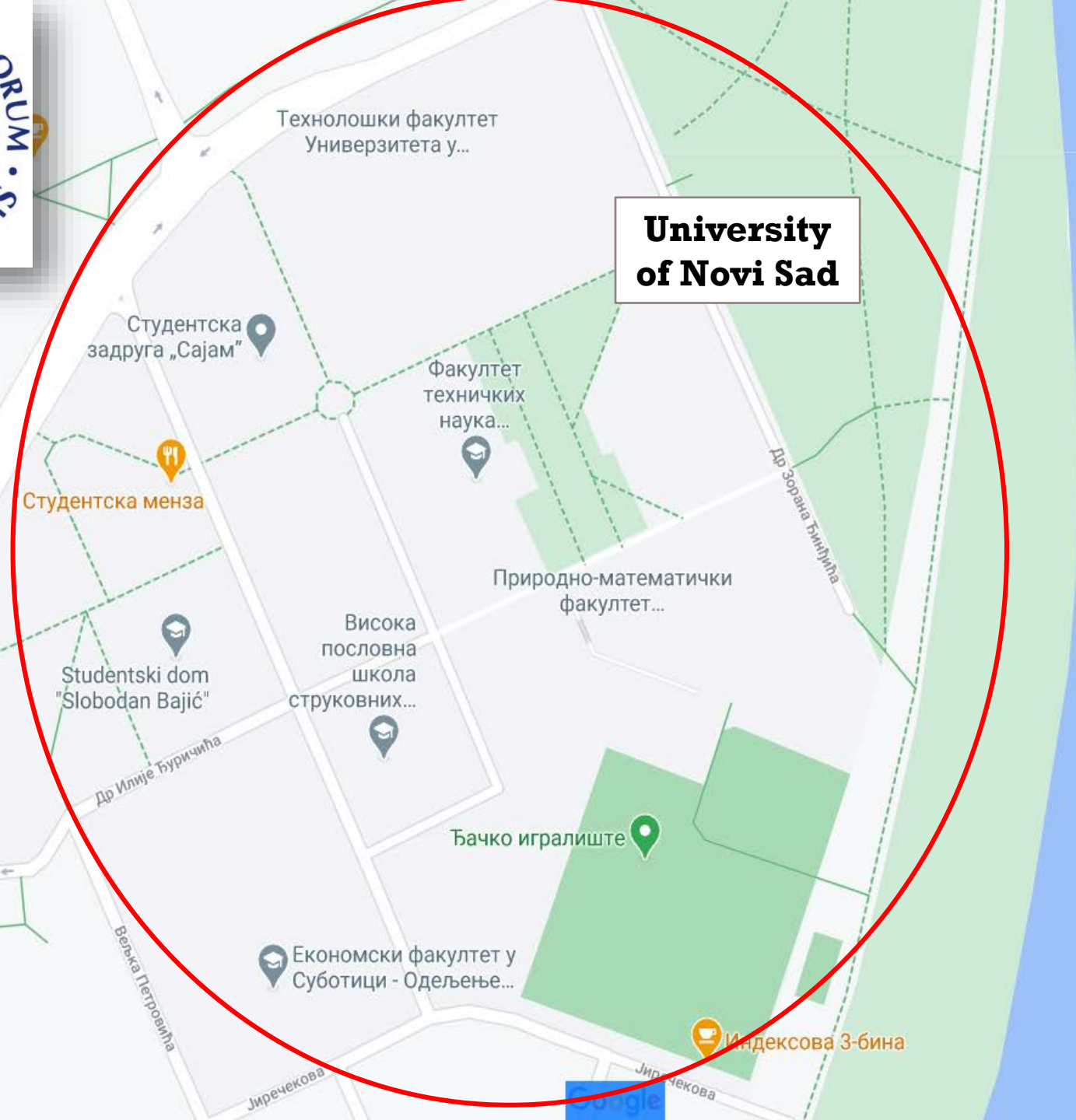
- During this presentation, special attention will be paid to present some interesting and useful solutions for hybrid learning courses that were established at the University of Novi Sad, Faculty of Sciences in the Republic of Serbia.



- Novi Sad is the second largest city in Serbia and the capital of the autonomous province of Vojvodina.
- The city lies on the meander of the Danube river.



Novi Sad is one of the most important centers of higher education and research in Serbia, with four universities overall and many professional, technical, and private colleges and research institutes.



- The second largest University in Republic of Serbia
- 14 Faculties
- 4 Institutes
- 6 University centers





The whole University of Novi Sad has more than 50 000 students, more than 4500 students attend some of the 50 accredited study programs of the Faculty of Sciences.



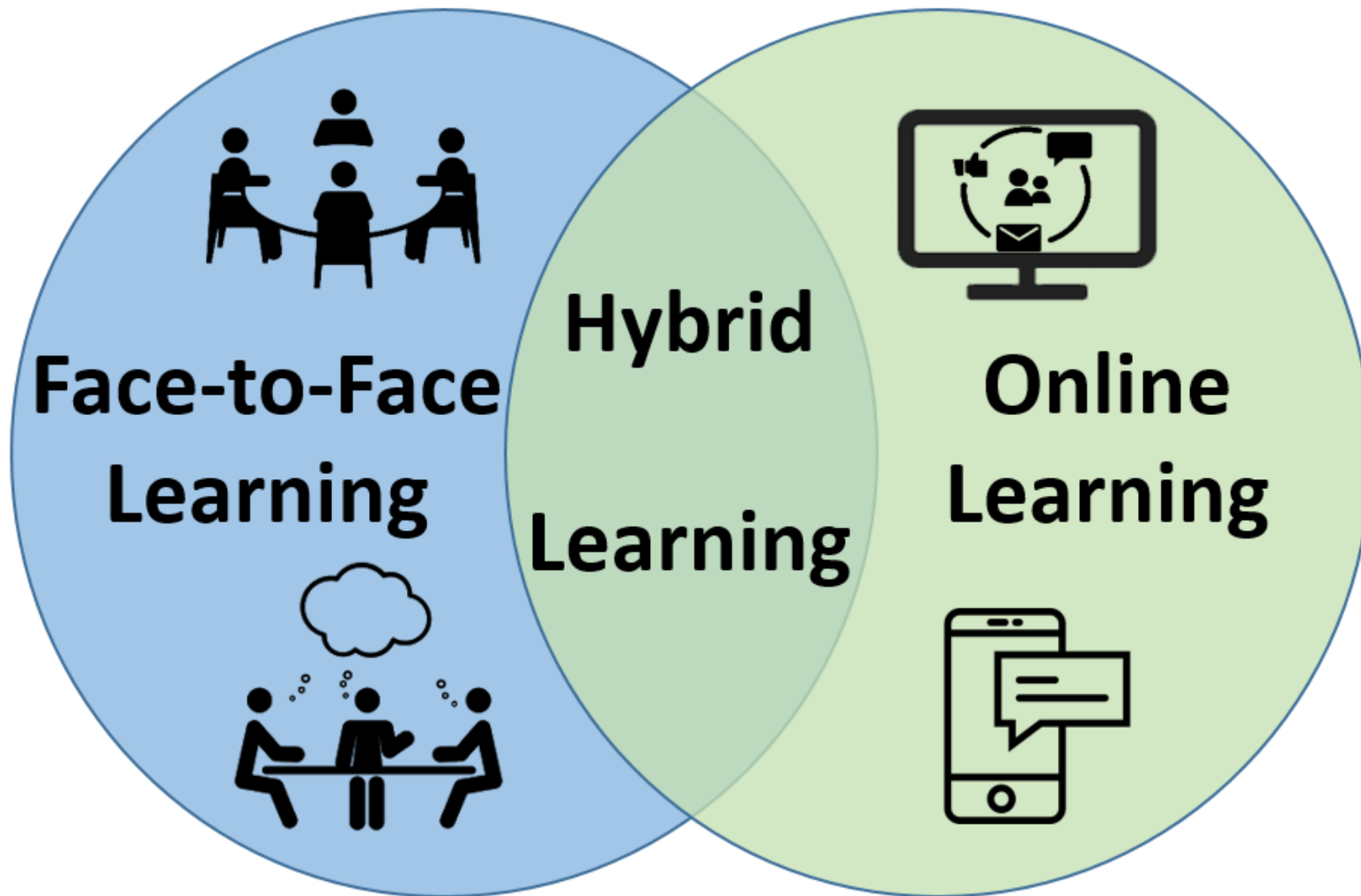


## **FACULTY OF SCIENCES CONSISTS 5 DEPARTMENTS**

When we speak about challenges that emerged due to the Covid19 pandemic, the most demanding situation was for the faculties performing experimental exercises.

The curriculum on three of these departments (Chemistry, Physics and Biology) heavily relies on experimental exercises.





## **THE FIRST CHALLENGE DURING THE COVID19 PANDEMIC WAS TECHNICAL**

Faculty managements worldwide had to decide which distance learning and conference tools they will utilize. A distance learning platform based on the Moodle service has been in use at the Faculty of Sciences for more than 10 years now.



# MOODLE

## ePMF - Sistem za podršku e-učenju

### My courses

Analitička hemija okoline

Statistička obrada rezultata u hemiji

VRH

Hemometrika

Osnovi instrumentalne analize - DON

Osnovi instrumentalne analize

Osnovi instrumentalne analize - Hemičar

Hromatografske metode



Enrollment Code

Enroll



Počena stranica



Kalendar



Bedževi



Svi kursevi

- **688 courses on Moodle service of the Faculty of Sciences before pandemics**
- **877 courses after two weeks of pandemics**





# DISTANT LEARNING PLATFORMS AND TECHNICAL PREPARENES AREN'T ENOUGH FOR EFFICIENT ONLINE TEACHING



QUARANTINE & CHILL



# DISTANT LEARNING PLATFORMS AND TECHNICAL PREPARENES AREN'T ENOUGH FOR EFFICIENT ONLINE TEACHING



QUARANTINE  & CHILL 





## **TOOLS THAT WERE RECOMMENDED FOR OUR STAFF WERE:**

- Microsoft Teams
- WebEx
- Zoom
- Discord
- FreeConferenceCall
- Jitsi





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# **OPEN-SOURCE SOFTWARE SOLUTIONS**



# OBS Studio

Latest Releases  26.1.1  26.1.2  26.1.1

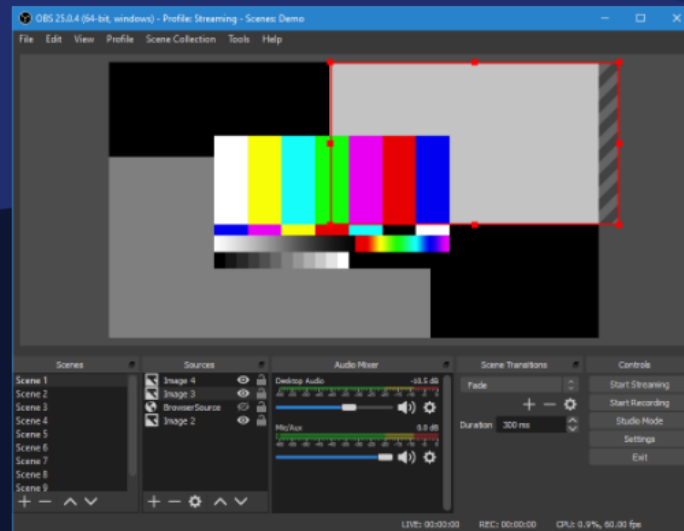
[Windows](#)

[macOS 10.13+](#)

[Linux](#)

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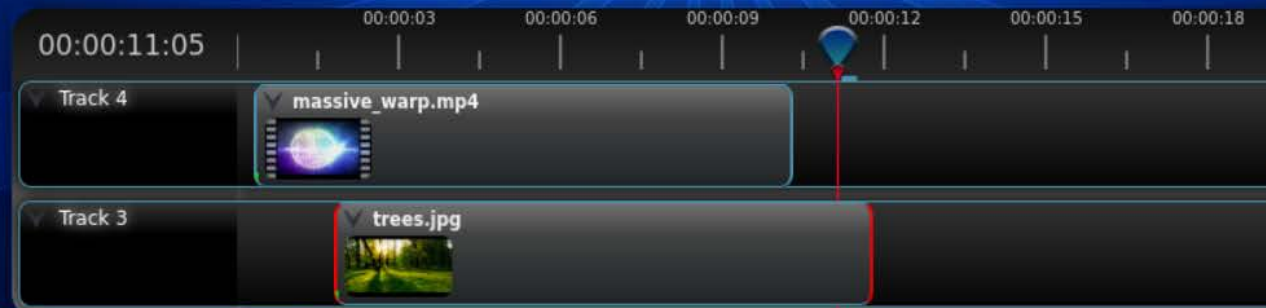


<https://obsproject.com/>



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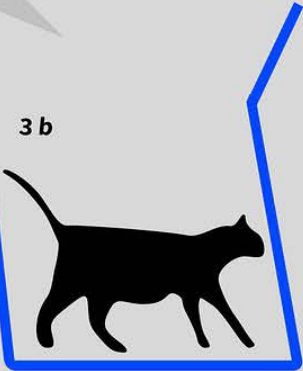
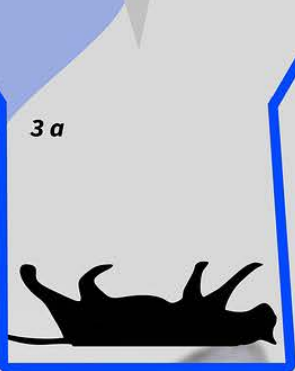
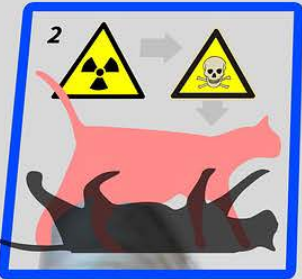
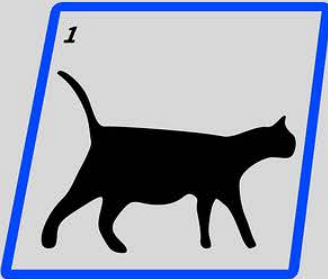


# Adjust the course materials to online activities





# EXPERIMENTAL EXERCISES



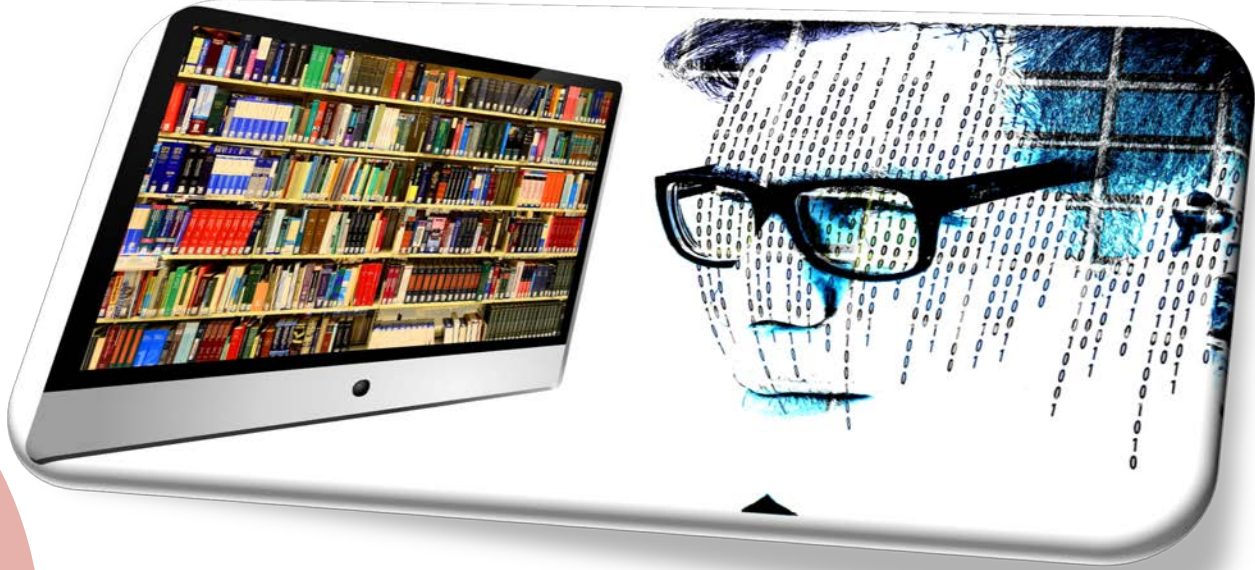
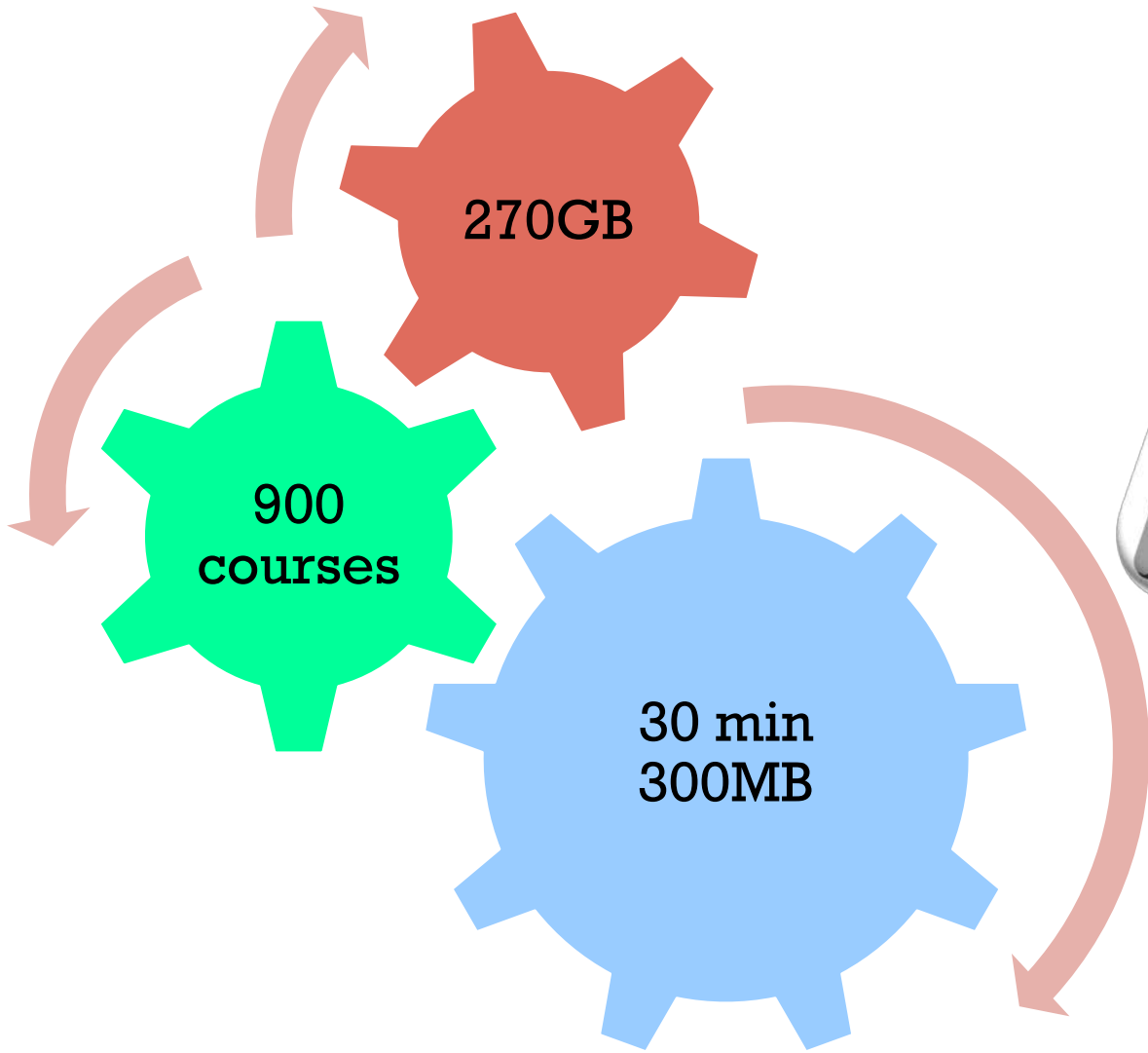


## RECORDINGS OF THE EXPERIMENTS

- Equipment for video recording is expensive
- Software packages for screen recording and video editing
- The size of the resulting video files



# Faculty of Sciences generated several TB of video materials per week





Co-funded by the  
Erasmus+ Programme  
of the European Union



# NETCHEM PROJECT

<http://mdl.netchem.ac.rs/course/view.php?id=20>

<http://mdl.netchem.ac.rs/course/view.php?id=27>



Home About project Documents News & Disseminations Events Gallery Platform



Home



## Latest News

The Erasmus + project NETCHEM was chosen as the best example of good practice

NETCHEM project was selected as the best example of good practice from 287 projects that were approved for realization in 2015 and 2016. Upon completion of their implementation, the NETCHEM Project was evaluated by the EACEA, based on the quality of achievements results of the project, as the best example of good practice. The presentation of the



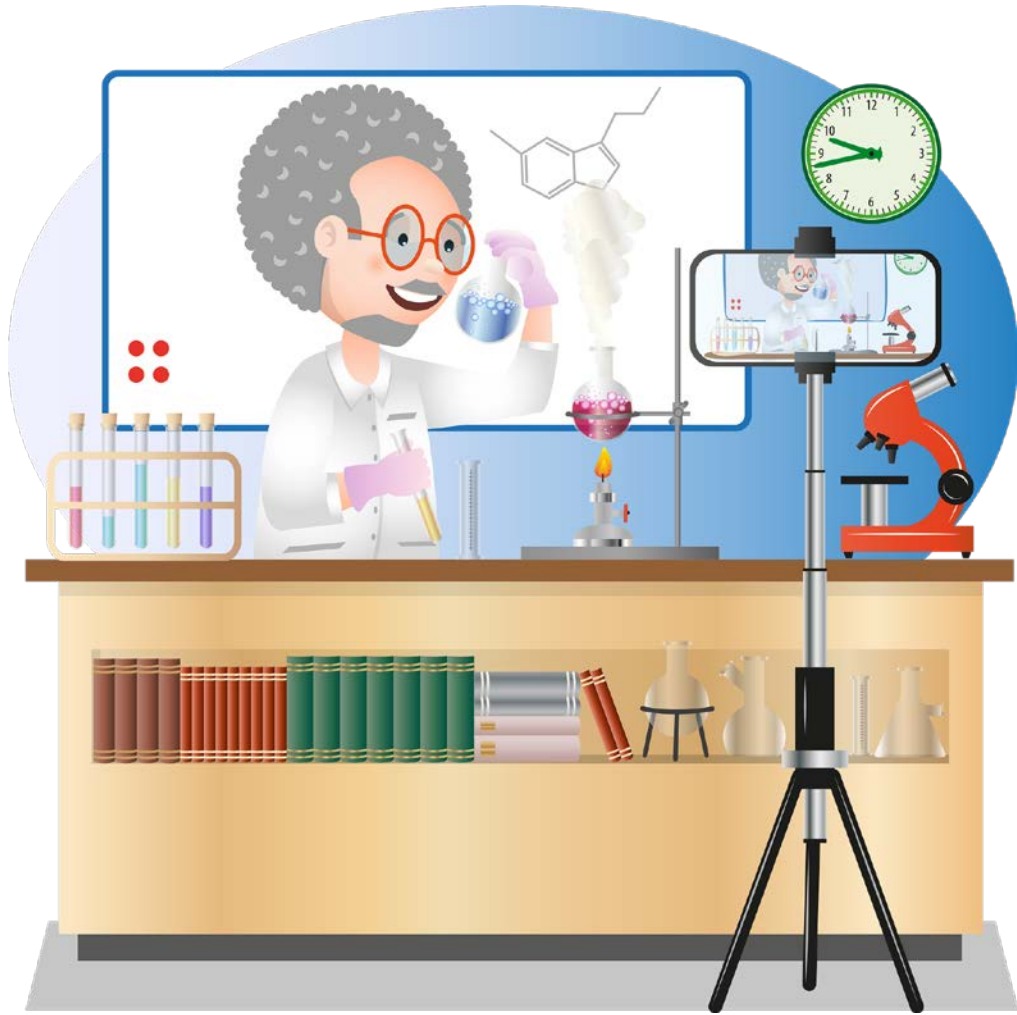
## NETCHEM Remote Access



<http://www.netchem.ac.rs/>



# Semester



# Examination period



