TeComp

Report 4.2 Systems for electronic testing developed

October 2022

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Content

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WP4 The formation of online learning environment

4.2. Systems for electronic testing developed

Study programs at participating universities in Serbia are not accredited for distance learning.
Such accreditation would require special conditions and technical requirements related to the secure identification of students being tested remotely and preventing non-academic behavior during the remote testing process.
For that reason, final exams cannot be performed by electronic distance testing.
However, electronic testing is allowed to be used in some activities that are parts of pre-examination obligations, such as homework and colloquia.
Many courses and additional periodic online evaluations were organized for students in order to raise their engagement and ensure reaching learning outcomes.

Systems for electronic testing were developed in the Microsoft Teams and Moodle platforms and also in the LearningKey platform.

This was organized mostly for student self-evaluation, although some colloquia and exams were also held during the pandemic.

During the time of high pandemic and isolation, some of the exams with a smaller number of students were organized online.

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4.2.1. University of Kragujevac

Faculty of Science, University of Kragujevac does not have accreditations for online examining, but on many courses, additional periodic online evaluations were organized for students in order to raise their engagement and ensure reaching learning outcomes. The list of that courses with some basic details is given in the next table.

	Subject	Study program	Number of students (per one school year)	Type of evaluation	Used tool
1.	Probability and statistics 1	Bachelor studies in Mathematics	30	Homework and short tests	Moodle and LearningKey Platform
2.	Machine learning 1	Master studies in Informatics	7	Homework	Microsoft Teams
3.	Numerical analysis and symbolic programing	Bachelor studies in Informatics	70	Homework	Moodle Platform
4.	Selected chapters of geometry	Master studies in Mathematics	20	Homework	Microsoft Teams
5.	Selected chapters of elementary mathematics	Bachelor studies in Informatics	15	Homework and its online presentations	Microsoft Teams
6.	Elementary mathematics	Bachelor studies in Mathematics/Informatics	45	Homework and its online presentations	Microsoft Teams
7.	Analysis 1	Bachelor studies in Mathematics	40	Homework	Microsoft Teams
8.	Analysis 3	Bachelor studies in Mathematics	21	Homework	Microsoft Teams
9.	Partial integral equations	Bachelor studies in Mathematics	28	Homework	Microsoft Teams
10.	Analysis 4	Bachelor studies in Mathematics	26	Homework	Microsoft Teams
11.	Theory of Measure and Integration	Master studies in Mathematics	2	Homework	Microsoft Teams

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12.	Cloud computing	Master studies in Informatics	6	Homework	Moodle, BigBlueButton
13.	Didactics of programing and computer science	Bachelor studies in Informatics	30	Homework and its online presentations, seminars	Microsoft Teams
14.	Heuristic optimization methods	Master studies in Informatics	6	Homework, seminars	Microsoft Teams
15.	Software engineering	Bachelor studies in Informatics	50	Weekly monitoring of progress in project implementation	Microsoft Teams, BigBlueButton
16.	Computer simulations	Bachelor studies in Informatics	10	Homework	BigBlueButton
17.	Didactics of Mathematics	Bachelor studies in Mathematics	23	Homework and lesson plans	Microsoft Teams
18.	Psychological foundations of learning mathematics	Master studies in Mathematics	20	Seminars and their online presentations	Microsoft Teams
19.	Educational software	Bachelor studies in Mathematics	13	Seminars and their online presentations	Microsoft Teams
20.	The physical chemistry 1	Bachelor studies in Chemistry	45	Tests	https://quizizz.com/
21.	The physical chemistry 2	Bachelor studies in Chemistry	30	Tests	https://quizizz.com/
22.	Didactics of Chemistry 1	Bachelor studies in Chemistry	6	Tests	Google forms
23.	Didactics of Chemistry 2	Bachelor studies in Chemistry	6	Tests	Google forms
24.	Mathematical physics 2	Bachelor studies in Physics	10	Tests	Microsoft Teams, LearningKey Platform
25.	Synecology	Bachelor studies in Ecology	20	Colloquiums, Seminars, and their online presentations	Microsoft Teams

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4.2.2. University of Niš

As stated earlier, study programs of FSMUNI are not accredited for distance learning because such accreditation requires special conditions and technical requirements related to secure identification of students being tested remotely and preventing non-academic behavior during the remote testing process. For that reason, final exams cannot be performed by electronic distance testing. However, electronic testing is allowed to be used in some activities that are parts of pre-examination obligations, such as homework and the like.

When creating electronic quizzes in areas such as mathematics, physics, or computer science, there is often a need to use mathematical symbols and complex mathematical formulas in question formulation, and in such situations, classical HTML-based quiz creation programs do not give satisfactory results. In such situations, various TeX (LaTeX) packages can be used to create quizzes in pdf format, with mathematical symbols and formulas incorporated in question formulation. In this activity, our choice was the AcroTeX eDucation Bundle, which offers a multiplicity of possibilities to the user to integrate interactive mathematical and scientific content into PDF files, including interactive exercises, tests, and quizzes inside a PDF file. Using AcroTeX we can pose both multiple choice questions and objective style (fill-in-the-blank) questions, whereby an objective style question can be a text fill-in question that requires entering a word or phrase as the answer, and a math fill-in question that requires a mathematical expression as the answer.

In the AcroTEX system, document-level JavaScript is also used to score and grade the student responses. Evaluation of the quizzes created by the AcroTeX package is originally done on the client side, within the web browser or Acrobat Reader. One of the great advantages here is that the document can be downloaded, brought into Acrobat Reader, and reviewed online (the performance of the document is much better within Acrobat Reader than within a web browser). This kind of quiz is ideal for a do-it-yourself tutorial system, read by a well-motivated student who has the discipline to read the material and to take the quizzes in the spirit in which they are given. However, some educators may wish to use the quizzes created by the exerquiz package for classroom credit. It is necessary, therefore, for the student to be able to submit quiz results to a web server which, in turn, should store the results in a database. The first type of quiz, with built-in JavaScript that evaluates the answers within the pdf document, was used

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for self-testing students attending the subject Mathematics 1 (Bachelor studies in Computer Science).

Online quizzes for testing students attending the subject Discrete Structures 1 (Bachelor studies in Computer Science) were created using Microsoft Teams and the Forms application.

4.2.3 University of Novi Sad

At the University of Novi Sad, Faculty of Science, organizing exams online is not legal since our study programs are not accredited for distance learning. However, during the situation of the pandemic, some knowledge verification methods were organized online, mostly pre-examination tests and also some exams (but for small groups.) Moreover, tests for self-evaluation of student knowledge were organized in several courses and three ways of organizing self-evaluation were developed using Moodle, Microsoft Teams, and LearningKey platforms.

Pre-examination tests were not performed in large and medium groups. There have been a few experiments with fast responses via a computer program, but without much success. In small groups (about 5 students) it was much easier, and they were done mostly by doing homework which was very well accepted by the students. On the other hand, homework that was a means of better understanding the material was not so well accepted. Students complained that there was too much of it in the level of the whole study program because "all teachers were taking care only of his/her subject and were not aware that students have other duties to fulfill" so it piled up and prevented them from following online lectures. This fact was also confirmed by the teachers since for many, checking electronic homework took much more time than a classical one with live communication with students. (Small pictorial description - the fastest way to get the most accurate answer is when you point your finger at something and ask, "Why is this true now?" or "How am I going to fix this?"). Perhaps the solution was to significantly reduce the amount of material. Namely, the suggestion from the Conference of Universities of Serbia to reduce the volume of teaching syllabi during the pandemic by about 20% (which seems reasonable) came too late because we planned to finish classes by May 15 so that students would have time to prepare for the remaining April examinations (that was postponed) and regular pre-examination tests.

A pilot examination was organized for some exams in a way that oral communication was held where the teacher talked with the student all the time using a microphone and a camera. In that variant, students were examined one by one. Students were allowed to use a book or notebook, and after receiving a topic on which a discussion will be

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organized, they were allowed to think about the topic for a few minutes. After that, they are asked a series of quick questions in order to establish how much the students understood and learned about the topic. In this way of examining, the student's understanding of the topic was assessed.

	Subject	Study program	Number of students (per one school year)	Type of evaluation	Used tool
1.	Boolean algebra and optimization	Bachelor studies in Mathematics and Applied Mathematics	26	Homework online, part of the exam online	Moodle and LearningKey Platform
2.	Selected topics in Applied Algebra	Master studies in Applied Mathematics	1-4	Seminar paper	Webex
3.	Mathematical Analysis 1	Bachelor studies in Computer Science	38	Homework and Seminar papers online.	Moodle
4.	Mathematical Analysis 2	Bachelor studies in Computer Science	33	Homework and self-evaluation tests online.	Moodle and Learning Key Platform
5.	Decision Theory	Master studies in Applied Mathematics	5	Self-evaluation tests online with time limits	Moodle
6.	Seminar paper – Mathematical Modelling	Bachelor studies in Applied Mathematics	5	Seminar paper	Moodle
7.	Numerical methods and optimization	Bachelor studies in Computer Science	48	Quizzes for self-evaluation	Moodle
8.	Financial mathematics 1	Bachelor studies in Applied Mathematics	26	Quizzes for self-evaluation	Moodle
9.	General algebra	Doctoral studies in Mathematics	2	Homework and knowledge verification in parts	Webex

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10.	Methodology of Mathematics 1	Integrated studies for Mathematics Teachers (bachelor and master)	20	Homework	Moodle
11.	Methodology of Mathematics 2	Integrated studies for Mathematics Teachers (bachelor and master)	14	Homework	Moodle,
12.	Research in Education	Integrated studies for Mathematics Teachers (bachelor and master)	13	Homework	Moodle,
13.	School practice 3	Integrated studies for Mathematics Teachers (bachelor and master)	7	Homework	Moodle,

4.2.4 University of Gjirokastra

The Faculty of Natural Science and the Department of Education and Teaching Methodology conducted all their activity online during the pandemic situation, which means all the subjects (study lectures, seminars, laboratory and practical work, giving and submitting tasks and formative and summative evaluation) of the above Faculty and Department were held via online platforms: MS Teams, Google Classroom, Google Meet, Zoom Whatsapp, Clean Score during the first year and MS Teams and Clean Score for the remaining period. About 650 students of FNS and DETM benefited from the opportunities that distance learning offered during the aforementioned period.

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4.2.5 University of Korce

As mentioned before, Korça University does not have accreditations for online examining. Nonetheless, professors of the Faculty of Natural and Human Sciences have used different online tools to evaluate students parodically during their courses. This was done mostly using MS Teams and the tools it provides (applications such as Forms and Stream)

The list of that courses with some basic details is given in the Table 1.

	Subject	Study program	No. of students	Type of evaluation	Tool Used
1.	Mathematical Analysis 1	Bachelor in Mathematics-Informatics/ Mathematics Physics	15	Short tests	Microsoft Teams
2.	Mathematical Analysis 2	Bachelor in Mathematics-Informatics/ Mathematics Physics	15	Short tests	Microsoft Teams
3.	History of development of mathematical thought	Masters in teaching mathematics, physics and informatics	35	Homework Quizzes	Microsoft Teams Learning Key Study.com
4.	Methodology of teaching mathematics	Masters in teaching mathematics, physics and informatics	35	Homework, Quizzes Course project	Microsoft Teams Learning Key
5.	Algebra 1	Bachelor in Mathematics-Informatics/ Mathematics Physics	15	Homework	Microsoft Teams
6.	Algebra 2	Bachelor in Mathematics-Informatics/ Mathematics Physics	15	Homework	Microsoft Teams Learning Key
7.	Statistics and Probability	Bachelor in Information Technology	40	Homework Short tests	Microsoft Teams Google Forms
8.	Mathematics in secondary	Masters in teaching mathematics, physics	35	Homework Course project	Microsoft Teams Learning Key

		education	and informatics			
9.	MATLAB	Bachelor in Mathematics-Informatics/ Mathematics Physics	20	Homework Quizzes Final Project	Microsoft Teams Microsoft Stream Learning Key
10.	Elementary Mathematics	Bachelor in Mathematics-Informatics/ Mathematics Physics	15	Homework	Microsoft Teams
11.	Discrete Mathematics	Bachelor in Information Technology	40	Homework	Microsoft Teams Learning Key
12.	Cryptography	Bachelor in Information Technology	30	Homework Quizzes	Microsoft Teams Learning Key
13.	Algebra 3	Bachelor in Mathematics-Informatics/ Mathematics Physics	20	Homework	Microsoft Teams
14.	Algebra 4	Bachelor in Mathematics-Informatics/ Mathematics Physics	20	Homework	Microsoft Teams
15.	Physics 1	Bachelor in Mathematics-Informatics/ Mathematics Physics	15	Homework	Microsoft Teams Learning Key
16.	Physics 2	Bachelor in Mathematics-Informatics/ Mathematics Physics	15	Homework	Microsoft Teams Learning Key
17.	Number theory	Bachelor in Mathematics-Informatics/ Mathematics Physics	20	Homework	Microsoft Teams
18.	Differential Equations	Bachelor in Mathematics-Informatics/ Mathematics Physics	20	Homework	Microsoft Teams

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4.2.6 University of Belgrade

Although the University of Belgrade does not have accredited courses for distance learning, during the pandemic period we were forced to implement most of the teaching activities in that way. Thanks to that, the knowledge and skills acquired during the realization of the TeComp project came to full expression and realized their planned potential. After returning to direct communication with students, some online teaching methods have been retained in order to improve student engagement and achieve planned learning outcomes. Teachers and associates at the University of Belgrade used different platforms and applications, and the list of courses with some basic information about the way of work and the number of students is given in the following table.

	Subject	Study program	Number of students (per one school year)	Type of evaluation	Used tool
1.	Biomedical Ecophysiology	MSc, Biology	10	Homework and short tests	Google Classroom and LearningKey Platform, Quizziz
2.	Endocrinology	BSc, Biology	95	Homework, short tests and seminar presentations	Google Classroom, Quizziz
3.	Physiology of animals	BSc, Biology	30	Homework	Google Classroom
4.	Ethnobotany and phytochemistry	BSc, Biology	60	Homework, Short tests	Google Classroom, Quizziz
5.	Basis of medical genetics	BSc, Biology	26	Homework and its online presentations	Google Classroom

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6.	Computers and society	BSc, Informatics	26	Homework, presentations of group work results	Microsoft Teams, LearningKey Platform
7.	Methodology of teaching physics 1	BSc, General Physics	10	Homework and its online presentations	Microsoft Teams
8.	Methodology of teaching physics 2	BSc, General Physics	10	Homework and its online presentations	Google Classroom
9.	Pedagogical research in physics	MSc, General Physics	7	Homework and its online presentations	Microsoft Teams
10.	Applied methodology of teaching physics	BSc, General Physics	5	Homework and its online presentations	Microsoft Teams
11.	Modern teaching tools	BSc, MSc, General Physics	5	Homework and its online presentations	Microsoft Teams
12.	Educational standards	BSc, General Physics	5	Homework, Short tests	Google Classroom, Microsoft Teams, Quizziz
13.	Distance learning	MSc, General Physics	5	Homework and its online presentations, seminars, short tests	Google Classroom, Microsoft Teams, Quizziz

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Appendix 1

Testing in Microsoft Teams

In Teams, two kinds of tests can be given out: assignments and forms. Both can be used for self-assessment, as well as conventional testing, with automatic grading being available in Forms. This document deals with the creation and review of assignments from the teacher's point of view.

Creating an assignment

To create an assignment, choose the "Assignments" page in a team, and click the "Create" button (Figure 1). Choose to create an assignment.
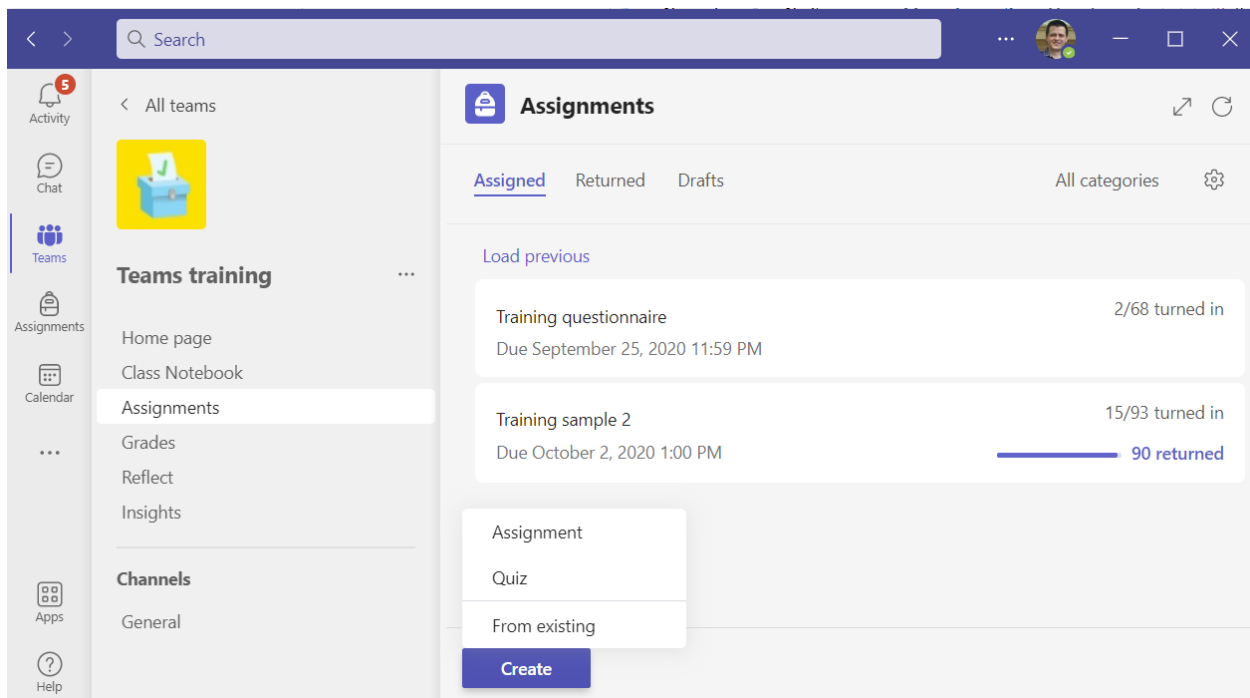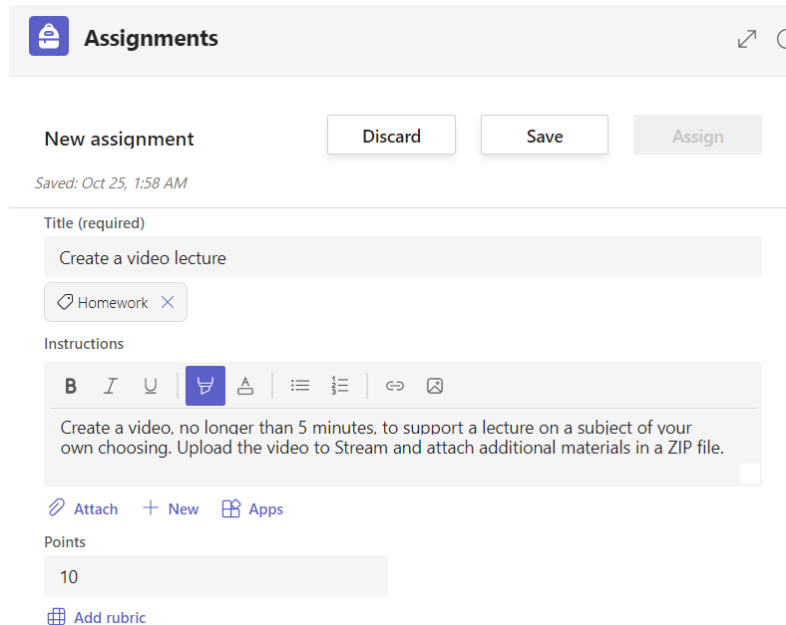
Figure 1. Choosing the type of the test to be created

Next, provide the following data (Figure 2):

- Assignment title and optional category tags;
- Instructions, either as plain text or hypertext with formatting, hyperlinks and images;
- Optional attachments, such as existing files, new Office content from Word, Excel, PowerPoint, OneNote, Stream and Whiteboard, or data from Apps connected to Teams.
- Points awarded for completion of the assignment, and the optional grading rubric.

Next on, specify the team and students the assignment is being assigned to. You may choose to have the assignment automatically assigned to student added to the team in the future, or not. Provide a due

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date and specify whether late turn-ins are allowed or not. If you choose a due date in the past, a warning message will be displayed (Figure 3).
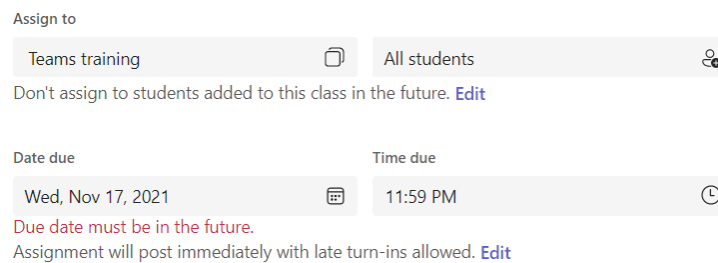
Figure 2. Specifying new assignment title, instructions and points

Figure 3. Assigning the assignment to a team and specifying the due date

Assignments can be assigned to all students belonging to a team, individual students or groups of students (Figure 4). In the latter case, it is possible to manually group students, or have the groups created randomly.

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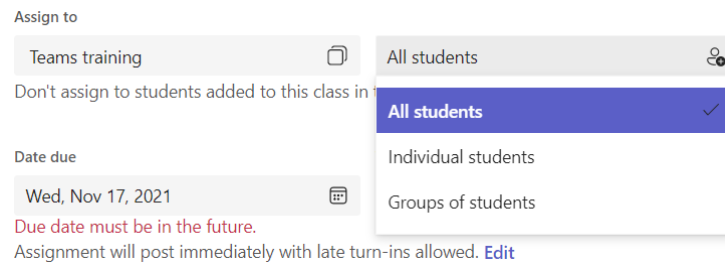
Figure 4. Choosing the students the assignment will be assigned to

Finally, choose whether and how to add the assignment to a team calendar (Figure 5), post a notification on the assignment in a team channel, and receive notifications for late turn-ins.
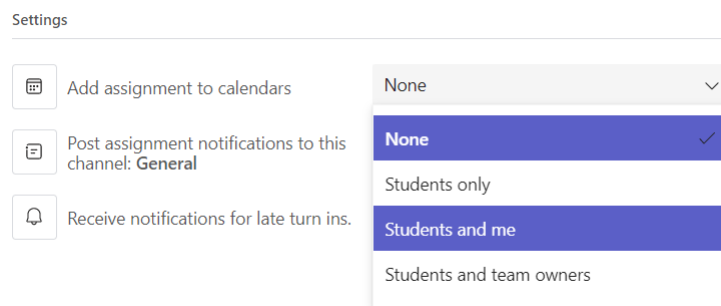
Figure 5. Choosing to publish the assignment due date in the team calendar

A newly created assignment can be saved as a draft or published with the "Assign" command. A notification about the assignment will also appear in the selected channel.
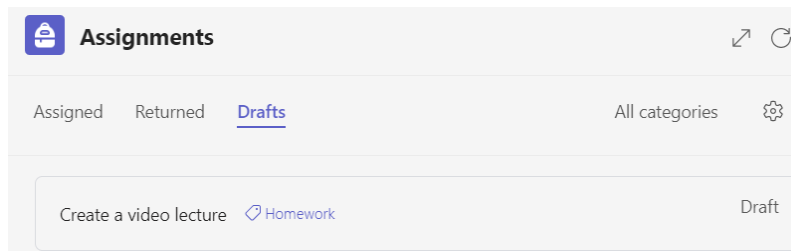
Figure 6. Draft assignments

Published assignments are shown with their due dates. The assignment in Figure 7 is due for the next day until midnight.

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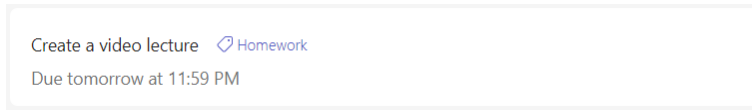
Figure 7. Assignment due tomorrow

If a more sophisticated control over the deadlines is required, additional dates can be specified:

- Schedule to assign in the future – the students will see the assignment on a set date and time;
- Close date – the assignment will be closed on a specified date and time, and no further contributions will be accepted from the students.

Figure 8. Additional options for assignment deadlines

Managing assignment feedback

Published assignments are visible to students, who can view them and upload their work. When a student finishes an assignment, they turn it in for review.

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Figure 9. A list of students for an assignment

Student's point of view

A student can view the assignments from their "Assignments" page in Teams (Figure 10).
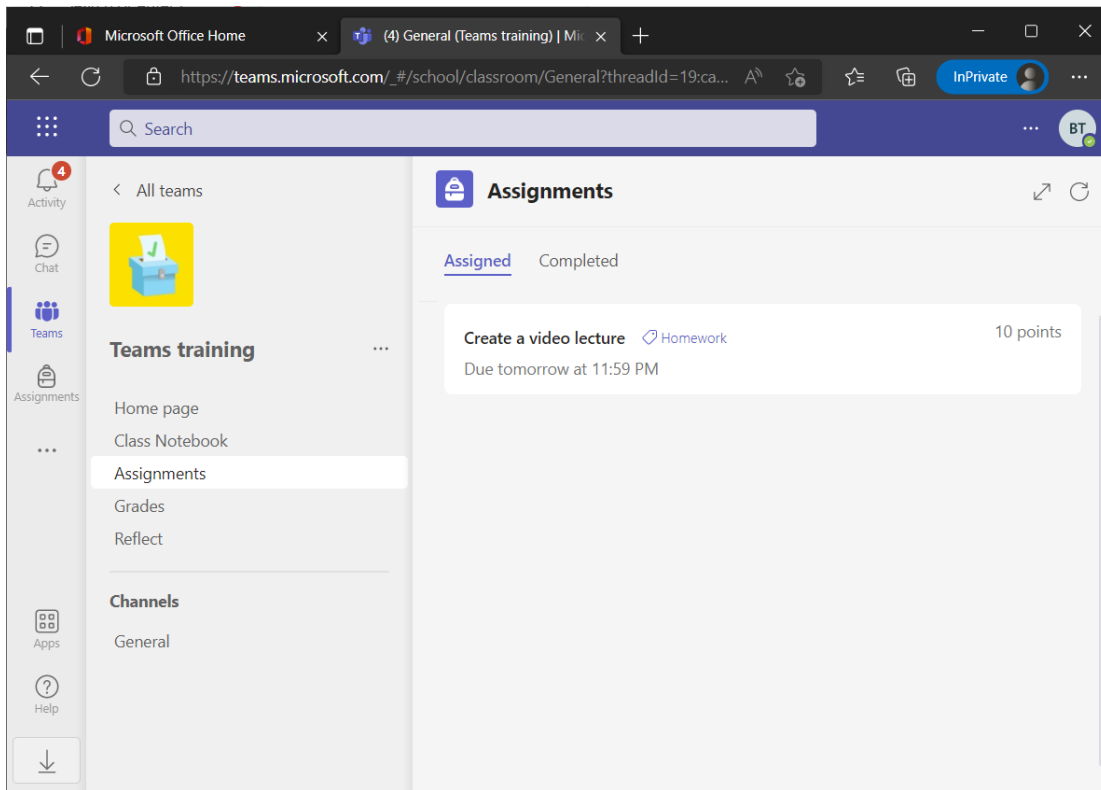
Figure 10. The list of assignments assigned to a student

The student is required to submit their assignment work as an attachment, or to create a new document and do the work in it. Finally, they need to click the "Turn in" button (Figure 11).

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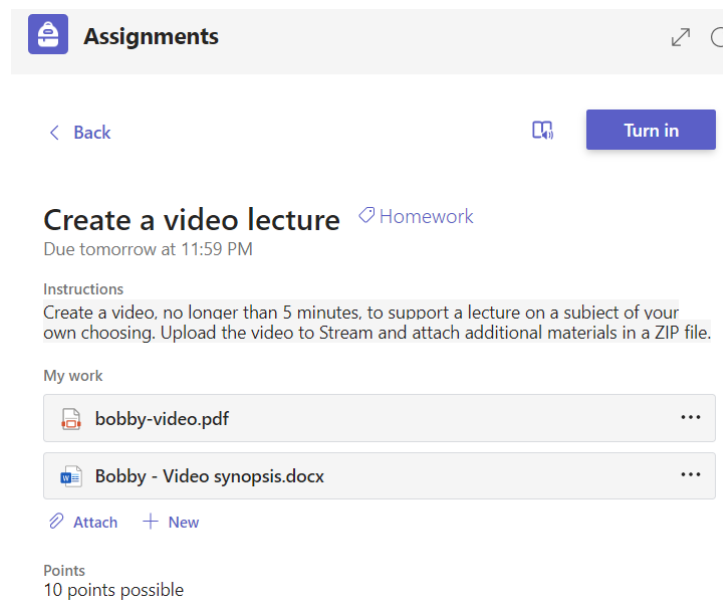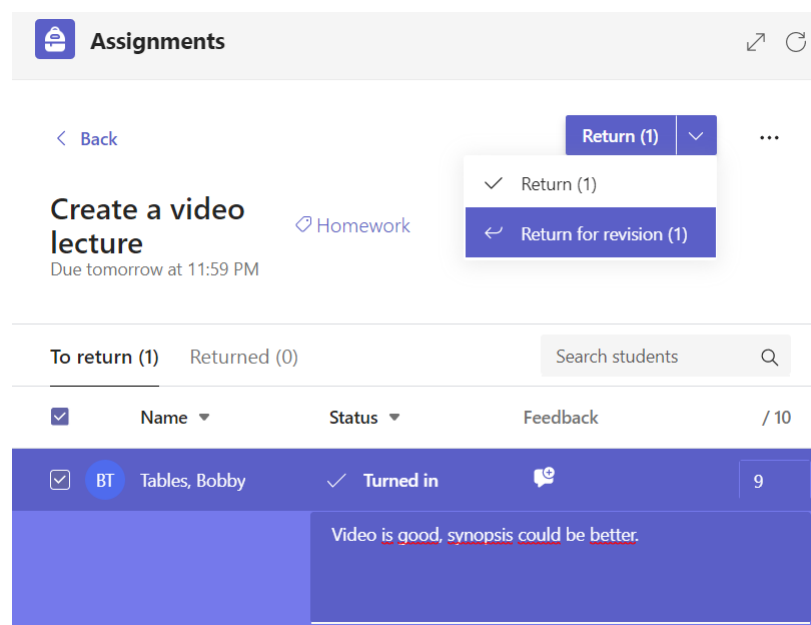
Figure 11. Uploading the student work and turning in the assignment

Reviewing the student work

The teacher can check for student turn-ins and review them. After reviewing the assignments, the teacher should type in their feedback and grade the assignments. If additional work is required from the students, the teacher can return the assignment for revision. Otherwise, they grade the assignment and return it to the student (Figure 11).

Figure 12. Commenting, grading and returning student work

Appendix 2

Self-assessment test for students on the Moodle platform - Tecomp project

In accordance with the projected intellectual outputs of the Tecomp project, a self-assessment test was prepared for students enrolled in the course Mathematical Analysis 2, at the Department of Mathematics and Informatics, Faculty of Sciences, University of Novi Sad. This test is focused on the general understanding of the mathematical concepts introduced in the first part of the course, not on the precise formulations of definitions and theorems, and will help students to independently assess the extent to which they have adopted the concepts necessary for the creation of tasks.

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Test Preparation

To start with the preparation of a test, use the "**Add activity or resource**" option, and select option "**Test**" (Figure 1).
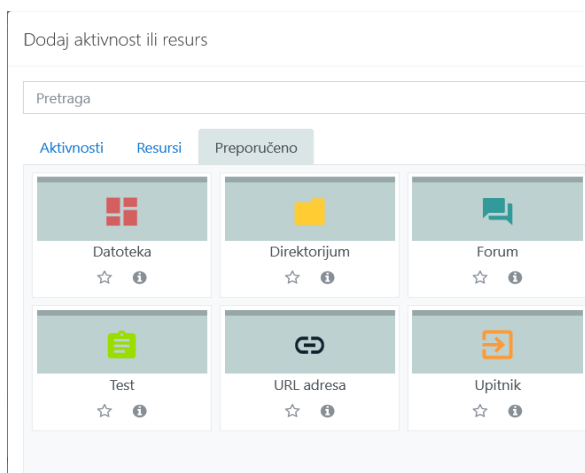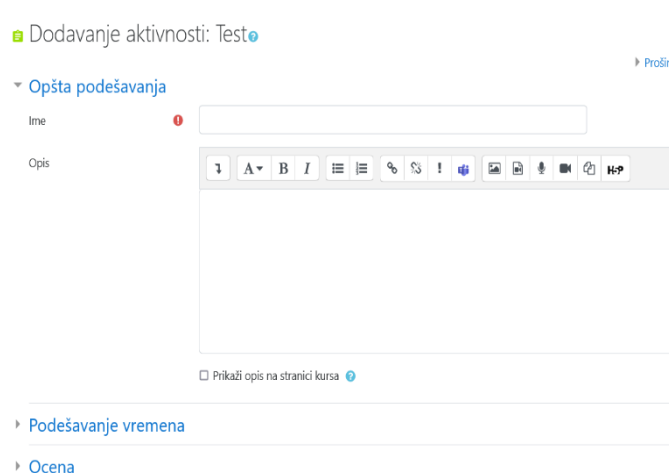

Figure 1. The start

Figure 2. The first step – *General setting*

The first step is "**General Settings**" which contains the title of the test as well as a brief description. The description can be of an internal character, i.e., it is possible to choose whether it will be visible or not on the course page. Required fields are marked.

The next step is to set the time interval in which the test is available, the length of the test, and the conditions for submitting the completed (or unfinished) test. All these options are under section "**Timing**" (Figure 2).

The next important step is the setting "**Grade**". It is possible to set a limit for a passing grade (in this example, it is 13 because the test consists of 25 questions, with each question carrying one point). Also, this step adjusts how many times the test can be done. If the multiple-try option is selected, a new rating option opens. It is possible to choose the result of the last test as the overall result, the average value of all attempts, ...

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The fourth step is the "Layout" section, and there can be chosen how many questions should be on one side, how the questions change, ...

The previous three steps can be seen in Figure 3.

Figure 3. Steps 2,3, and 4.

The fifth and sixth steps are interesting. The setting "**Question behaviour**" allows us to shuffle the order of the offered answers (if we wish), and to choose the type of question. For this example, the option "interactive, multiple attempts" was chosen because the main goal of this test is for students to receive immediate feedback.

There are also options for review, which can be seen in Figure 4.

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Figure 4. Question behaviour and review options.

Option for **additional restrictions** is also interesting, however, it is not obligatory. Also, the setting "**Overall Feedback**" can be used for adding comments for students depending on the number of points (percentage) they received. There are a few more options that are not necessary at this time (Figure 5). If needed, the corresponding drop-down menus are informative enough.

Figure 5. Other basic settings.

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When all the initial parameters are set, go to "**Save and Display**". The window that appears is in Figure 6. Select "**Edit Test**".

Provera znanja pred I kolokvijum

Vremensko ograničenje: 30 min

Način ocenjivanja: Najviša ocena

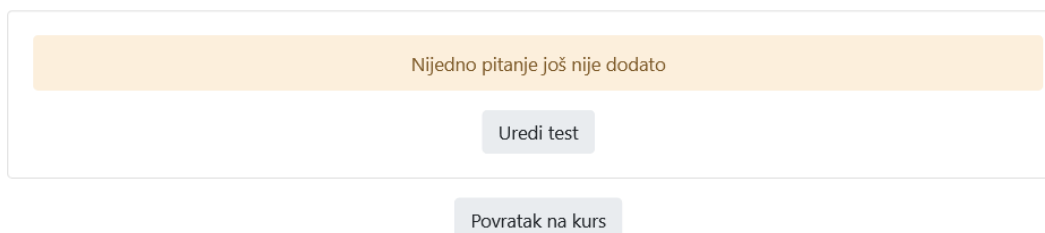Nijedno pitanje još nije dodato

Uredi test

Povratak na kurs

Figure 6. The window that appears after "**Save and Display**".

The "**Edit Test**" option takes us to the question entry window (Figure 7). The maximum grade is automatically set to 10, but that can be changed (the grade that is previously set for passing the test also depends on this setting, so you will have to return to the initial options and reset the passing grade). The "**Add**" button gives us the ability to enter the questions. For this example, "**a new question**" option was used (Figure 8). If previously prepared and saved, a question from a question bank can be used.

Uređivanje testa: Provera znanja pred I kolokvijum

Pitanja: 0 | Ovaj test je otvoren   Maksimalna ocena 10,00   Sačuvaj

Reorganizuj stranice   Izaberi više stavki   Maksimalno bodova za sva pitanja: 0,00

☐ Izmešaj

Dodaj ▾

Uređivanje testa: Provera znanja pred I kolokvijum

Pitanja: 0 | Ovaj test je otvoren   Maksimalna ocena 25,00   Sačuvaj

Reorganizuj stranice   Izaberi više stavki   Maksimalno bodova za sva pitanja: 0,00

☐ Izmešaj

Dodaj ▾

＋ novo pitanje
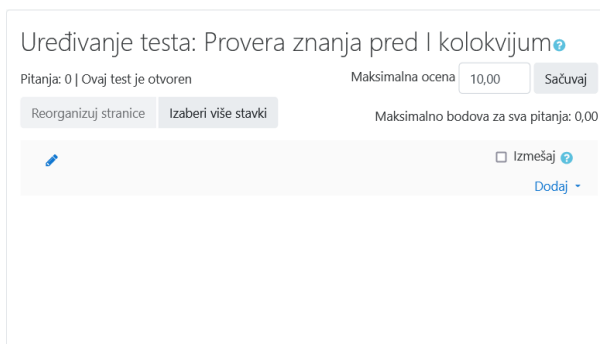＋ iz banke pitanja
＋ novo nasumično odabrano pitanje

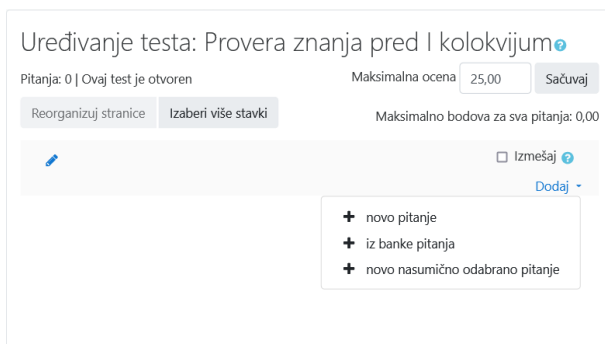Figure 7. Question entry – the start   Figure 8. Maximal grade setting, question entry

The next step is to choose the type of question that will be entered. There are 15 types available, and for this example True/False and Multiple-Choice questions are used (Figure 9).

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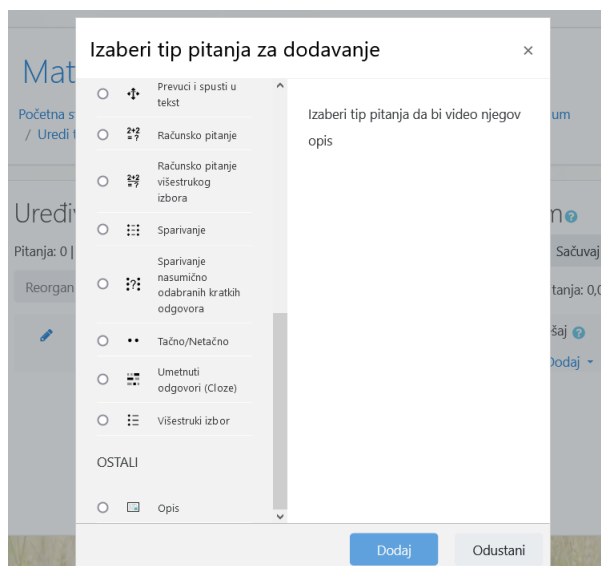Co-funded by the
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Figure 9. Question type choice.

By selecting a question type and clicking the Add button, we proceed to a form for editing the question. The procedure that follows is very well described, and instructions in the window that appears are enough for a successful question entry. For each subsequent question, it is necessary to click on Add button again and repeat the whole process.

After adding and editing the wanted number of questions, the window that appears looks like in Figure 10. Option "**Shuffle**" can be used to change the order of the questions each the test is started.
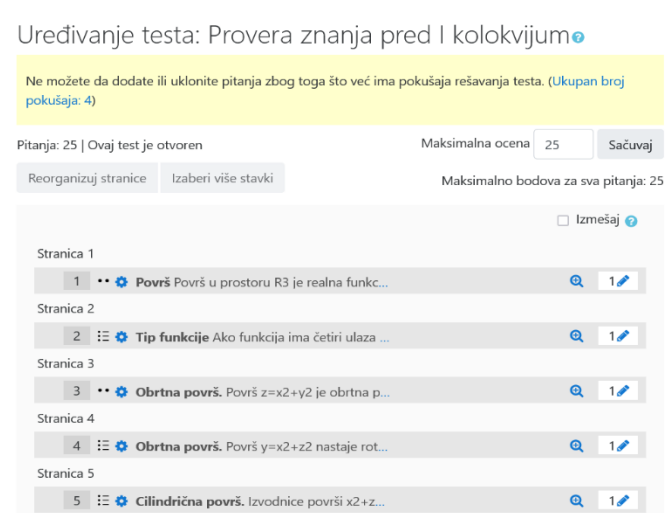

Figure 10. The final list of questions.

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When the test is started, the window with the first question appears. Each question is set to be on a separate page. After entering the answer, it is possible to press "**Check"** button (Figure 11). Information on whether the answer was correct or not, as well as an additional explanation, appears immediately. On the right is the **Test Navigation**, i.e., a counter that tells us how many questions remains to be answer, where the previous questions answered correctly, and the remaining time for the test (Figure 12).
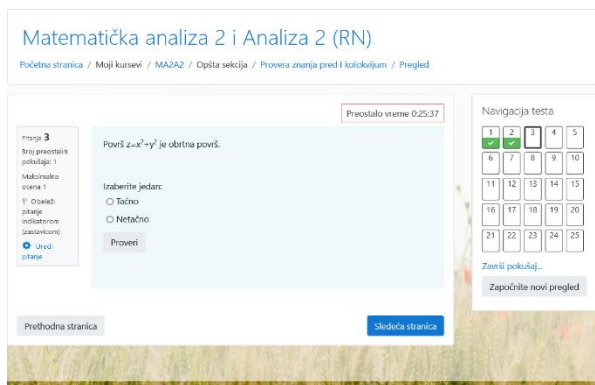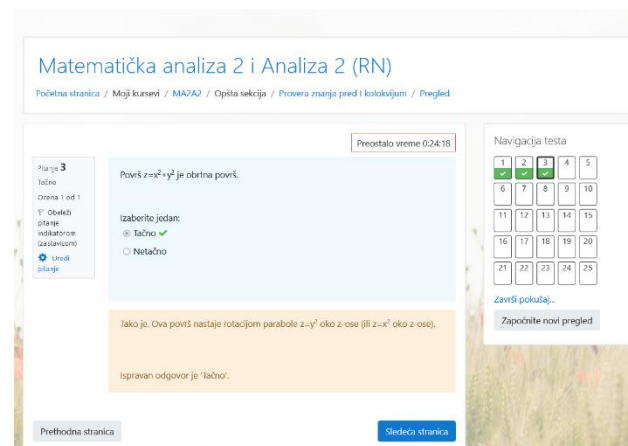

Figure 11. Te apperiance of a question.

Figure 12. Feedback on the answer.

When all questions are answered, the student that is taking this testy should click on "**Submit all answers**" option to complete the test. Also, it is possible to use "**Overview"** option and get complete information on points and answers (Figure 13).

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Započeto	sreda, 27. april 2022, 14:03
Status	Završeni
Završeno dana	sreda, 27. april 2022, 14:25
Utrošeno vreme	21 min 56 s
Ocena	**25** od 25
Povratne informacije	Odlično!

Navigacija testa

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23	24	25

Prikaži jednu po jednu stranicu

Završi pregled

Započnite novi pregled

Pitanje **1**
Tačno
Ocena 1 od 1
⚑ Obeleži pitanje indikatorom (zastavicom)
⚙ Uredi pitanje

Površ u prostoru R^3 je realna funkcija tri realne promenljive.

Izaberite jedan:
○ Tačno
◉ Netačno ✔

Dobar odgovor.

Opisno rečeno, funkcija uzima 2D tačku sa poda (iz domena), preračunava vrednost na koju je podiže (visinu) i smešta je u 3D prostor.

Ispravan odgovor je 'Netačno'.

Pitanje **2**
Tačno
Ocena 1 od 1

Ako funkcija ima četiri ulaza i dva izlaza, to je

Figure 13. The overview of the test.

A teacher can obtain full feedback on the number of students taking this test and on their results. After clicking on the test on the main page, the window from Figure 14 appears. The overview of all attempts can be obtained by clicking on "**Total number of attempts**". The information obtained is in the form illustrated by Figure 15,

Provera znanja pred I kolokvijum

Hajde da proverimo kako baratate pojmovima koje smo obradili u prvoj polovini kursa.

Vremensko ograničenje: 30 min

Način ocenjivanja: Poslednji pokušaj

Prolazna ocena: 13 od 25

Ukupan broj pokušaja: 16

Rezime vaših prethodnih pokušaja

Figure 14. Obtaining the full feedback on attempts.

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Status	Započeto	Završeno	Utrošeno vreme	Ocena/25 ▼	P. 1 /1	P. 2 /1	P. 3 /1	P. 4 /1
Završeni	30. april 2022 10:20	30. april 2022 10:50	30 min	22	✖ 0	✔ 1	✔ 1	✔ 1
Završeni	29. april 2022 23:46	30. april 2022 00:16	30 min	20	✔ 1	✔ 1	✔ 1	✔ 1
Završeni	30. april 2022 09:52	30. april 2022 10:22	30 min	20	✔ 1	✔ 1	✔ 1	✔ 1
Završeni	27. april 2022 19:25	27. april 2022 19:39	14 min 37 s	19	✖ 0	✔ 1	✔ 1	✖ 0
Završeni	29. april 2022 23:34	30. april 2022 00:03	28 min 43 s	19	✖ 0	✖ 0	✔ 1	✖ 0

Figure 15. The feedback for a techer.

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