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## **METHODOLOGICAL RECOMMENDATIONS**

**on developing the online course  
MR.029-03-01-04.1.03 - 2023**


Almaty 2023

**PREFACE**

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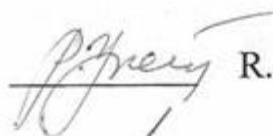
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## 1 General concepts

Online training is elaborated with the purpose to contribute to optimizing University's educational process, development of technical skills of students, improves the quality of education through the use of modern technical means, electronic libraries.

At NPJSC "Kazakh National Research Technical University named after K.I.Satbayev" (hereinafter - KazNRTU) online training is carried out directly through the online educational portal Polytech Online <https://polytechonline.kz/>

Polytech Online is a platform created by University based on the popular distance learning system Moodle. Educational materials on university programs are placed here. The system provides convenient communication with the teacher. Students can take photos of written papers on their phone, send them to their account and attach them to the task directly in the system. Accounts and class schedules for students and teachers on Polytech Online are created automatically from the data of University's student learning portal. Logins and passwords are the same in all systems.

Polytech Online is a platform through which students can get all the materials for university courses. The learners have full online communication with the teacher, and also, without using additional mail services, they can attach online answers to assignments. The online learning platform also contains tests that will help test the knowledge of students, and video tutorials that clearly explain the training material, as well as separate individual tasks that will help consolidate the knowledge gained in practice.

All students have personal accounts on Polytechonline platforms.kz and Microsoft 365 Education, integrated into a single educational system and in the cloud services of Microsoft Office 365 package.

The mission of the portal is to improve the professional skills of teachers and students, the availability of meeting their requests and expectations through the use of various forms and technologies of online publications. To work with Polytech Online portal, it is necessary to adhere to the system requirements specified in Appendix 1.

To get acquainted with the instructions for working with the educational portal Polytech Online, follow the link <https://polytechonline.kz/cabinet/course/view.php?id=133>

## 2 Regulatory references

Methodological recommendations were developed considering the requirements of the following regulatory legal acts:

- Law of the Republic of Kazakhstan "On Education" dated 27.07.2007. # 319-III (with amendments and additions).
- Law of the Republic of Kazakhstan "On Science" dated 18.02.2011 # 407-

IV (with amendments and additions).

- Law of the Republic of Kazakhstan "On the Languages of the Republic of Kazakhstan" dated 11.07.1997 # 151-I (with amendments and additions).

- Law of the Republic of Kazakhstan "On Combating the Corruption" dated 18.11.2015 # 410-V LRK L (with amendments and additions).

- State mandatory standard of higher and postgraduate education. Approved by Order of Minister of Science and Higher Education of the Republic of Kazakhstan dated 20.07.2022 # 2 (with amendments and additions).

- Anti-corruption standard for ensuring the openness and transparency in organizations of higher and (or) postgraduate education. Approved by Order of Minister of Education and Science of the Republic of Kazakhstan dated 4.05.2020 # 174 (with amendments and additions).

- Concept of anti-corruption policy of the Republic of Kazakhstan for 2022-2026 and amendments to some decrees of President of the Republic of Kazakhstan. Approved by Decree of President of the Republic of Kazakhstan dated 2.02.2022 # 802 (with amendments and additions).

Standard rules of organizations' activity of higher and (or) postgraduate education. Approved by Order of Minister of Education and Science of the Republic of Kazakhstan dated 30.10.2018 # 595 (with amendments and additions).

- Rules for organizing the educational process on credit technology of training. Approved by Order of Minister of Education and Science of the Republic of Kazakhstan dated 20.04.2011 # 152 (with amendments and additions).

- Requirements for educational organizations to provide distance learning and rules for organizing the educational process for distance learning and in the form of online training in degree programs of higher and (or) postgraduate education. Approved by Order of Minister of Education and Science of the Republic of Kazakhstan dated 20.03.2015 # 137 (with amendments and additions).

- Uniform requirements in information and communication technologies and information security field. Resolution of Government of the Republic of Kazakhstan dated December 20, 2016 # 832.

- Policy in the field of quality at NPJSC KazNRTU named after K.I. Satbayev.

- IS ISO 9001:2015 "Quality management systems. Requirements".

- Normative documents of NPJSC KazNRTU named after K.I. Satbayev.

### 3 Terms and definitions

- **Polytech Online** is a platform created by University based on the popular distance learning system Moodle;

- **asynchronous learning format** – distance learning or online learning, involving the interaction of participants in the educational process, including through information systems and other means of communication, not tied to a specific place and time;

- **distance learning** – training carried out with the interaction of the teacher and students at a distance, including with the use of information and communication technologies and telecommunication means;
- **Moodle** - modular object-oriented dynamic learning environment;
- **information system** – an organizationally ordered set of information and communication technologies, technical documentation, implementing certain technological actions through information interaction and designed to solve specific functional tasks;
- **information and communication technologies** – a set of methods of working with electronic information resources and methods of information interaction carried out using a hardware and software complex and a telecommunications network;
- **mass open online course** (hereinafter - MOOC) – a training course with mass interactive participation, using e-learning technologies and open access via the Internet;
- **educational portal** is an information system designed to provide participants of the educational process with access to information resources and educational services using an information and telecommunications network;
- **online course** - a training program that allows you to gain knowledge, skills and competencies via Internet in real time, including using previously recorded video lectures in organizations of higher and (or) postgraduate education;
- **online training** is a form of training in specific areas of personnel training, in which the student receives higher and (or) postgraduate education through information and communication technologies and Internet for interaction between the teacher and the student, regardless of the spatial and temporal distance;
- **online proctoring** is a system of identity verification and confirmation of online exams results, which provides recording, recognition and identification of personality, analysis of head and body movements, with noise level detection, multi-face recognition, a request to record a room in 360-degree mode, logging of suspicious events;
- **synchronous learning format** – distance learning or online learning, involving direct communication (streaming) of participants in the educational process in real time, using the capabilities of information systems and other means of communication, in which students receive information, work with it independently or in groups, discuss it with other participants and teachers from anywhere in the single time period for all;
- **learning management system** (LMS) is a platform for the administration of training courses, including a set of training materials and tools that provide distance learning and online learning for interaction of participants in the educational process;
- **digital footprint** of a student is a set of verified data on educational activities results recorded on LMS (learning management system) and (or) other platforms or information system;

- **digital educational resources** – didactic materials on the studied disciplines and (or) modules that provide training in an interactive form: photographs, video clips, static and dynamic models, virtual reality and interactive modeling objects, sound recordings and other digital educational materials.

#### **4 Massive Open Online Course (MOOC)**

Massive open online course (abbreviated: MOOC; Eng.) is one of the forms of distance education: distance learning and methodological complexes, including video lectures, slide presentations, additional material for reading or viewing, glossaries, homework in the form of projects, interactive games, simulations, intermediate and final tests, course literature lists, useful links.

##### **Procedure for organizing the MOOC development**

4.1. The developed MOOC is placed on the official KazNRTU platform polytechonline.kz.

4.1.1 The main subject of MOOC is the author's scenario of an open online course, which means a course designed for e-learning, including thematically related video lectures, additional educational materials, presentations, test tasks, ensuring constant communication of all participants in the educational process in forums on a specialized online platform of open online education, conducting the final certification.

4.1.2 Institute of Digital Technologies and Professional Development (hereinafter – IDTPD), at the request of MOOC departments, forms a schedule for the subsequent recording of video tapings of lectures and editing, uploading test tasks, forming interactive tasks, materials for independent work.

4.1.3 Teaching staff (hereinafter referred to as TS) should develop and approve an online course work program at the department. To place MOOC on TS platform, it is necessary to prepare information about the proposed online course (the general idea of “the course”).

4.1.4 When shooting video lectures, it is necessary to adhere to the recommendations specified in Appendix 2.

4.1.5 Duration of the course is 2-3 weeks (for additional degree programs) and 6-9 weeks (for higher, postgraduate or additional professional degree programs) with a class schedule of 8-12 academic hours per week, depending on the complexity of the module and the course. The duration of one section is calculated for one week.

4.1.6 Online course should be divided into relatively small, logically closed parts – sections (modules). Each section is a standard educational product that includes a clearly defined amount of knowledge and skills intended for study during a certain time (week), or a credit unit. The average number of sections (modules) in MOOC is 4 (the maximum number of lectures is 15).

4.1.7 Materials of each module must include: 4 video lectures lasting 10-20 minutes each; a test aimed at assessing the level of understanding of the module



materials, homework, exercises. There may also be tasks for working on the module material, which are further subject to evaluation by the teacher, and sessions of interactive communication between the teacher and a group of students in the forum mode.

4.1.8 MOOC materials should be visual, understandable, unambiguous and presented in the form that contributes to understanding the logic of the functioning of the course as a whole and its individual parts, in order to provide users with the opportunity to communicate interactively.

#### 4.2 Launch and maintenance

4.2.1 After the course is posted on the platform, the time for studying the course material and completing tasks is set. IDTPD specialists provide access to both students and course authors.

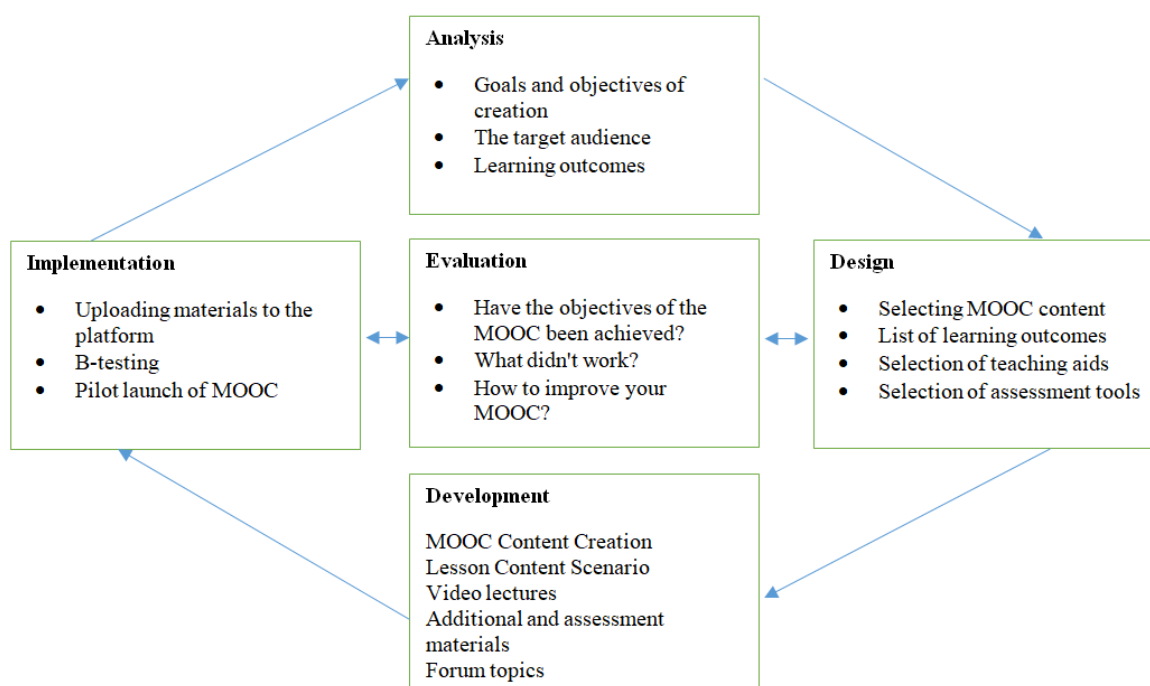
4.2.2 After the launch of MOOC, the authors or a team of authors carry out the maintenance of the course. The course support includes: answers to questions on the forum, correction of errors in assignments, clarification of assignments, constant monitoring of the activity of course students.

#### 4.3 Requirements for persons conducting the technical support:

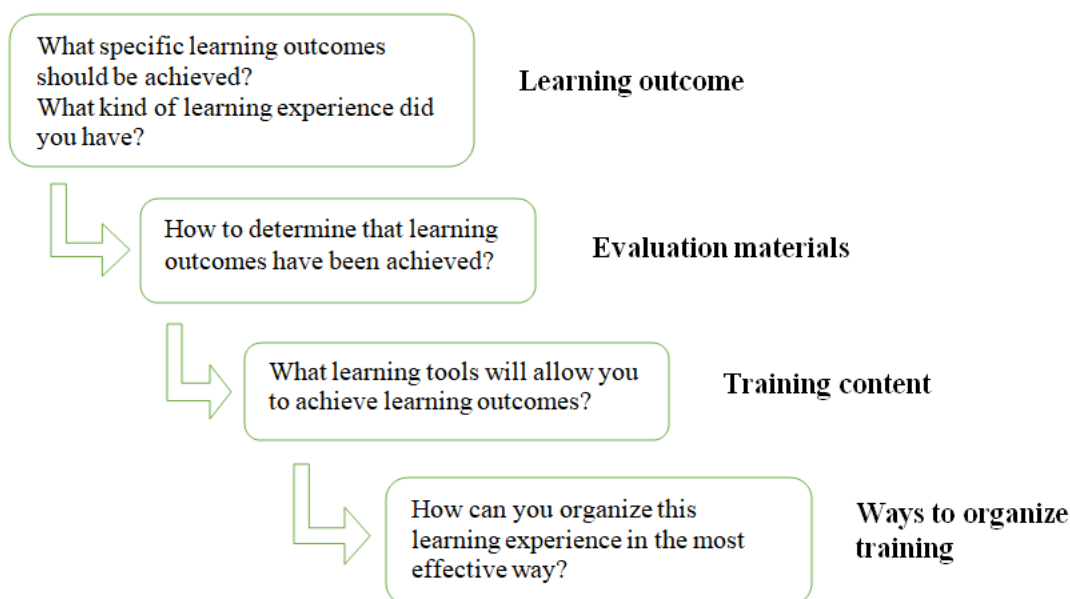
- availability and smooth operation of digital infrastructure and digital platforms, mobile applications involved in online learning;
- functioning of a software and hardware complex that provides studio production of online courses, electronic resources, with licensed software, with a dedicated room;
- information security of digital infrastructure and digital platforms involved in online learning.

When creating MOOC, there is used:

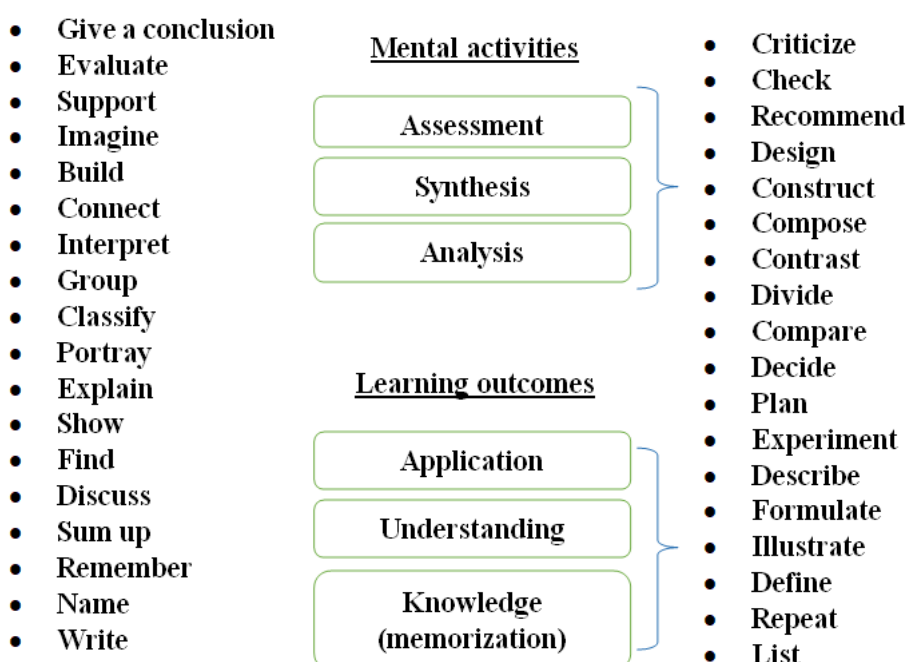
#### ADDIE pedagogical design model



## Reverse MOOC design



## B. Bloom's taxonomy in MOOC



## 5 Types of online course recordings

Polytech Online platform contains multilingual courses of highly qualified university teachers, which are available to students 24/7 and without limiting the number of views. The following types of online course recording were approved

by the collegial decision of Educational and Methodological Council. To date, courses at Satbayev University are being developed in 3 types:

- MOC - multimedia online course;
- LOC - light online course;
- OCC - online classroom course.

### **5.1 MultimediaOnlineContent (MOC)**

*Multimedia online content (MOC)* didactic materials on the subjects studied, providing training in an interactive form: photographs, video clips, statistical and dynamic models, 2-3D graphics, virtual reality and interactive modeling objects, sound recordings and other digital educational materials.

The difference between multimedia online content (MOC) and other remote forms of communication between teachers and students is that modern visualization tools are used: 3D graphics, video clips etc. - everything that makes the material understandable in the most interactive form.

MOC production is a complex, time-consuming process comparable to the production of TV series, includes the corresponding stages of film production (script, storyboard, shooting, video processing etc.). So, one discipline of 15 lectures with an average duration of lectures of 40 minutes is more than 12 hours of work.

The process of creating the MOC

- Forming the course team (lecturer, developer of tests (tasks))
- Defining the content of the works
- Preparing the calendar plan (determination of the date and time of filming).

It is also necessary to produce:

- Elaborating the pedagogical scenario of the course
- Recording video lectures
- Viewing and correcting video lectures with the editing director
- Transfer of media content to MOC for placement on Polytech online.

### **5.2 Light Online Content (LOC)**

*Light online course (LOC)* – the shooting takes place independently by the teacher using screen capture programs, as well as a prepared presentation (ppt). A set of educational materials on heterogeneous media (printed, audio, video, electronic materials) issued to the student for independent work.

LOC is a form of video recording with "the talking head" - a person sits in front of the camera and reads the text. This video format is usually used as an addition to PowerPoint presentation when you need to comment on slides or a drawing board will be used to explain the lesson material.

#### **Technical and general parameters in developing the light online content**

It is necessary to distribute the content so that one lecture corresponds to one presentation. The first slide of the presentation should contain only the title of the

lecture, the second slide – only the title of the fragment (part).

Each subsequent fragment of a lecture within a single presentation should begin with a slide containing only the name of the fragment itself.

The main formats that the author can produce at home:

- screencast accompanied by the author – demonstration of the work of a particular application, software, content and operation of web resources;
- presentations accompanied by the author – demonstration of pre-prepared presentation slides accompanied by the author's explanations.

For presentations, it is necessary to create slides in such a way that the materials occupy the entire slide space. We recommend using the Power Point presentation design template – "16:9 Screen". The font size for the title should be 32 pt. bold, for text blocks 24 pt. Links to illustrations and other borrowed materials can be indicated in gray with a font size of 11 pt. The font that we recommend using is Myriad Pro.

The slide content should be grouped in such a way that the author does not overlap its elements. To do this, it is recommended to leave a place for the teacher on the slide.

At the beginning of each lecture, the learning outcomes that will be achieved after graduation (lecture outcomes) should be spelled out.

The teacher should be able to organize their own work on the computer, slides should not contain a lot of text material, as well as contain solid texts or scrollable books, have introductory words like: therefore, therefore, proceeding from this.

- The lecture should be based on slides, photos, sketches and any other graphic materials related to the lecture, which can later be used as a handout.
- The presentation content should correspond to the lecture topic.
- Videomaterials
- Container: mp4
- Codec: H.264
- Resolution: not lower than 1280x720
- Aspectratio: 16:9
- The screen area should be filled completely, while there should be a small margin from the edges
- The recommended font size is 24 size
- Videoqualitycharacteristics
- The font is recommended to use sans serif (for example, Myriad Pro).
- It is not recommended to use more than 2 fonts per course.
- The shootouts must be the same throughout the course.
- It is not recommended to use a completely white background, dies and strokes for the text.
- To increase readability, it is recommended to use contrasting combinations

of text and background colors.

- It is not recommended to use more than 3 font colors per course.
- It is not recommended to use contrasting font colors inside a single sentence, paragraph, table.
- If the use of the background color of the tables is required inside the course, it is not recommended to use contrasting colors relative to the main background, a small semitone in the light or dark side is enough, the transparency of the fill is allowed.
- The thickness of the frames, table lines, arrows should correspond to the thickness of the font line.
- Within the course, it is desirable to use photographic, hand-drawn, animated material in the same style, color scheme, with the same frames, shadows.
- It is recommended to use pictograms and infographics without violating the rights of third parties when borrowing.
- To ensure a natural viewing experience, it is recommended to shoot the material in one take.
- When shooting, it is not recommended to use contrasting, colorful elements of clothing and makeup.
- When filming a teacher, the use of checkered clothing elements and striped clothing is not recommended.

### **5.3 Online Classroom Content (OCC)**

The difference between online classroom content (OCC) and other remote forms of communication between teachers and students is that the teacher at the blackboard, flipchart or interactive monitor shows the theory and explains the lecture material.

## **6 Digital content quality requirements**

Quality of digital content must meet the following requirements: completeness, diversity, availability of pedagogical design, multimedia.

Teaching in the form of online learning is allowed for the teaching staff who have completed advanced training courses in the field of IT competence, methods and technologies of online learning over the past 3 years with a total volume of at least 72 hours.

Monitoring of attendance of classes and students' progress is carried out by University by generating analytical reports on the contingent of students, courses, content units, statistics of appeals to specific courses or its content, logs of entry into the platform, dynamics of activity in courses, distribution of grades, attendance statistics indicated on the online learning portal <https://polytechonline.kz/>.

During online training, mandatory verification of all types of written works for borrowing is carried out in compliance with academic integrity principles.

When conducting the intermediate and final certification in an online form, online proctoring is used.

Development of pedagogical design one of the important criteria for creating an online course is an approach to designing educational formats that takes into account the needs of students and creates the most effective methods of communicating information.

Pedagogical educational design should include the following components:

- Analysis of learning objectives. It includes the definition of the necessary result achieved when mastering the discipline.
- Definition of audience characteristics.
- Elaborating the program. Development of the general structure and content corresponding to the goals and objectives of the discipline being studied.
- Development of materials. Development of textbooks, teaching aids, presentations, video tutorials.
- Organization of the educational process. Planning, conducting classes, monitoring and evaluating learning outcomes.
- Evaluation of results. Summing up and recommendations for improving the program.

*Basic principles of pedagogical design:*

- Setting goals and objectives. Students need to be shown in advance and periodically reminded about the advantages of the course being studied.
- Reliance of theory on context. The proposed new material should be based on existing knowledge.
- A variety of content forms. Online educational course should include: infographics, interactive tasks, videos, podcasts.
- Maintaining the activity. Knowledge must be supported by tests for mastering the materials.
- Feedback.

Evaluation of learning outcomes is carried out primarily through Internet testing, fixing intermediate results of students' work with educational resources. After each lecture, tests consisting of 5-10 questions should be compiled for the degree of assessment to develop the material passed (80% of correct answers makes it possible to move on to the next lecture).

When preparing the study materials for the online course, it is necessary to adhere to the presentation form, text templates and tasks specified in Appendix 3, 4 Syllabus must be developed according to the approved form Appendix 5.

**Syllabus** is a curriculum that includes a description of the discipline being studied, the goals and objectives of the discipline, its brief content (types of classes), topics and duration of their study, tasks of independent work, consultation time, schedule of knowledge checks of students, teacher requirements, criteria for evaluating the students' knowledge and a list of references.



Syllabus is developed by a university teacher who conducts classes in this discipline, it is necessary to remember about the student's academic load, which must be coordinated with European Credit Transfer System (ECTS). The training load is the time required for students to complete all tasks and training activities in order to achieve learning outcomes (hereinafter referred to as LO) for the course.

Syllabus content should be interconnected with the content of teaching other disciplines of the degree program in order to avoid duplication in the study of individual topics.

Syllabus volume is no more than 10 pages and is approved before the beginning of each academic year/ semester (in August for the fall semester; in January for the spring semester), provides complete information on the discipline being studied.

Syllabus has a clear structure:

- Title page;
- Information about the teacher;
- The purpose and objectives of the course;
- Course Description;
- Learning Outcomes (LO);
- Calendar and thematic plan;
- List of literature and Internet resources, Electronic Library of University- - <https://polytechonline.kz/>;
- Competence framework;
- Schedule of delivery of required works;
- Evaluation rating and possible final versions of assessments according to criteria;
- Evaluation criteria;
- Late delivery policy;
- Policy of academic conduct and ethics.

## **7 Accessibility for people with disabilities**

There are video lectures for people with disabilities, accompanied by subtitles. In the case of using the interactive components for people with disabilities, an alternative option for achieving and evaluating the learning outcomes should be provided.

## APPENDIX 1

**System requirements for working with Polytech Online portal**

Operating system – MS Windows XP and above Internet connection:  
minimum speed - 56 Kb/sec recommended speed - 528 Kb/sec

Web browser:

[MS Internet Explorer 8.0](#) and above; [Mozilla Firefox 6.0.1](#) and above; [Opera 16.0](#).

For viewing the animations, videos in FLV format and presentations: [Flash Player ActiveX](#);

[Adobe Acrobat Reader](#) или [Foxit Reader](#).

To view video content:

[Windows Media Player](#) and the corresponding codecs For viewing additional materials:

Archiver ([WinRAR](#), [7zip](#) etc.);

Office suite ([OpenOffice](#), [MS Office](#) or other);



## APPENDIX2

**MOOC Description**

The course contains the following description elements:

1. Course ID.
2. Course version.
3. The name of the course (no more than 150 characters).
4. The total labor intensity of the course in credits (1 credit is equal to 45 hours, with a 15-week duration of the course).
5. The number of weeks of training (from 4 weeks).
6. Average workload per week (e.g. 5-6 hours).
7. Name of the developer university.
  - a) full name.
  - b) abbreviated name.
8. Authors of the course.
9. The main illustration of the course or the banner of the course.
10. Promo video or trailer of the course (up to 3 minutes).
11. Brief summary of the course (1 sentence up to 100 characters).
12. Full course abstract (2 paragraphs up to 600 characters).
13. A map of the generated learning outcomes.
14. Information about the certificates issued, the rules for forming an assessment, a description of the assessment system (including the timing of work verification), the specification of the assessment system reflecting the relationship of tasks with course content, including the description of indicators and evaluation criteria, scales and evaluation procedures.

## APPENDIX 3

## Sample presentation

 <p><b>СЭТБАЕВ</b> УНИВЕРСИТЕТИ</p> <p><b>SATBAYEV</b> UNIVERSITY</p> <p><i>Введение в Gemcom для Windows</i></p> <p>Преподаватель: Молдабаева Гульназ Жаксылыковна, д.р.техн.наук, ассоц.проф. Кафедры «Нефтяная Инженерия»</p> <p><a href="mailto:molodtsova.gulyana@satbayev.kz">molodtsova.gulyana@satbayev.kz</a></p>	<p><b>Содержание</b></p> <ol style="list-style-type: none"> <li>1. Введение</li> <li>2. Идея 1</li> <li>3. Идея 2</li> <li>4. ...</li> </ol>																								
<p><b>По завершению урока Вы будете знать:</b></p> <ol style="list-style-type: none"> <li>1. Теория такая то</li> <li>2. Принципы такие то</li> <li>3. Инструменты такие</li> <li>4. ...</li> </ol>	<p><b>Введение</b></p> <p>Система GEMCOM разработана канадской компанией <a href="#">Gemcom International Inc.</a> и включает в себя все требуемые функции, начиная от ввода первичных данных и заканчивая блочным моделированием месторождений, проектированием и планированием открытых и подземных горных работ.</p> 																								
<p><b>Системные требования для 64-х битных версий</b></p> <table border="1"> <thead> <tr> <th></th> <th>MINIMUM SPECIFICATION***</th> <th>RECOMMENDED SPECIFICATION***</th> </tr> </thead> <tbody> <tr> <td>Operating System**</td> <td>Windows 7 SP1 and Windows 10</td> <td>Windows 7 SP1 and Windows 10</td> </tr> <tr> <td>CPU</td> <td>i5 2.5Ghz quad core 64 Bit Microprocessor</td> <td>i7/Xeon 2.66 GHz+ quad core 64 Bit Microprocessor</td> </tr> <tr> <td>HDD</td> <td>7200 RPM SATAIII</td> <td>7200 RPM SATA III or SAS 10,000 RPM (for data) + SSD (for Windows and applications)</td> </tr> <tr> <td>Memory</td> <td>8GB</td> <td>16GB+ Note: Additional memory will improve performance with large file sets. For example, a 20GB block model will require at least 24GB to be loaded fully into memory, but will perform better with 32GB.</td> </tr> <tr> <td>Display Adapter</td> <td>Nvidia GeForce GTX series or similar DirectX 9 or OpenGL 2 compatible card</td> <td>Nvidia Quadro, 2000, 4000, 6000 series or similar DirectX 11 or OpenGL 2 compatible card</td> </tr> <tr> <td>Screen Resolution</td> <td>1920 x 1080 LED</td> <td>1920 x 1080 LED</td> </tr> <tr> <td>Microsoft Office</td> <td>Microsoft Office 2010 64-bit</td> <td>Microsoft Office 2010 64-bit Note: This is a requirement only if you use a Microsoft Access database with Surpac. You must use 32-bit Office with 32-bit Surpac.</td> </tr> </tbody> </table>		MINIMUM SPECIFICATION***	RECOMMENDED SPECIFICATION***	Operating System**	Windows 7 SP1 and Windows 10	Windows 7 SP1 and Windows 10	CPU	i5 2.5Ghz quad core 64 Bit Microprocessor	i7/Xeon 2.66 GHz+ quad core 64 Bit Microprocessor	HDD	7200 RPM SATAIII	7200 RPM SATA III or SAS 10,000 RPM (for data) + SSD (for Windows and applications)	Memory	8GB	16GB+ Note: Additional memory will improve performance with large file sets. For example, a 20GB block model will require at least 24GB to be loaded fully into memory, but will perform better with 32GB.	Display Adapter	Nvidia GeForce GTX series or similar DirectX 9 or OpenGL 2 compatible card	Nvidia Quadro, 2000, 4000, 6000 series or similar DirectX 11 or OpenGL 2 compatible card	Screen Resolution	1920 x 1080 LED	1920 x 1080 LED	Microsoft Office	Microsoft Office 2010 64-bit	Microsoft Office 2010 64-bit Note: This is a requirement only if you use a Microsoft Access database with Surpac. You must use 32-bit Office with 32-bit Surpac.	<p><b>Связующие линии</b></p> <p><u>Tie lines</u>. Связующие линии. Специальные типы линии, которые используются исключительно для моделирования твердых тел. Линии используются, чтобы соединить линии 3D <u>rings</u> от плоскости к плоскости. Эти линии не имеют атрибутов.</p> 
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## APPENDIX 4

### TestTemplate

<b>Kazakh National Technical University named after K.I.Satpayev</b>							
<b>Institute of Digital Technologies and Professional Development</b>							
<b>Department:</b>							
<b>Educational program:</b>							
<b>Subject:</b>					<b>Number of credits:</b>		
<b>№</b>	<b>Question</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>Correct answer</b>
1	Capital of Kazakhstan	Almaty	Astana	Pavlodar	Karaganda	Talgar	Astana
2							
3							
...							
<b>Instructor:</b> _____							
<b>Head of the Department:</b> _____							

**ModularTaskTemplate**

MODULE ASSIGNMENT № \_\_\_\_\_

on the subject “ \_\_\_\_\_ ”

Instructor: position department “ \_\_\_\_\_ ” name and surname of the instructor**THERE SHOULD BE 2 ASSIGNMENTS:**

- 1) 1 assignment on practical or laboratory work that refers to a certain module;
- 2) 1 topic for SIS

№	Quality of the work	Estimation range (max 10 pts)	Points received
1	<i>Not done</i>	0-?	
2	<i>Done</i>	0-?	
3	<i>Independent systematization of material</i>	0-?	
4	<i>Completion of the required volume and within the specified time frame</i>	0-?	
5	<i>Use of additional scientific literature</i>	0-?	
6	<i>The uniqueness of the completed task</i>	0-?	
	<i>Total</i>	0-?	

## APPENDIX 5



**Institute** \_\_\_\_\_  
(full name of the Institute)

**Department** \_\_\_\_\_  
(full name of the Department)

**APPROVED**

Director of Institute \_\_\_\_\_

\_\_\_\_\_  
(signature, PS) (Full name of Institute Director)

«\_\_\_» \_\_\_\_\_ 20\_\_.

**SYLLABUS**

\_\_\_\_\_  
(code and name of the discipline) \_\_\_\_\_  
(cipher, name of the degree program)

\_\_\_\_\_ ( \_ / \_ / \_ ) credits  
(the number)

**Semester:** \_\_\_\_\_, 20\_\_ - 20\_\_ academic year  
(to specify the semester of the course, autumn/spring)

**Almaty 20\_\_**

**1 Information about the teacher(-s)**

**1.1 Lecturer(s):** \_\_\_\_\_  
 \_\_\_\_\_ (Full name and position of the teacher)

office: \_\_\_\_\_  
 (room, building)

Office-hours: \_\_\_\_\_

Tel., WhatsApp +7(\*\*\*) - \*\*\*-\*\*\*\*

e-mail:

**1.2 Teacher(s) leading the practical/laboratory classes**

\_\_\_\_\_ (Full name and position of the teacher)

office: \_\_\_\_\_  
 (room, building)

Office-hours: \_\_\_\_\_

Tel., WhatsApp +7(\*\*\*) - \*\*\*-\*\*\*\*

e-mail:

Form of study – online / <https://polytechonline.kz/>

**2 The aim and objectives of the course**

**Aim:**

**Objectives:**

**3 Course Description:**

**The course is intended for students of the degree program**

« \_\_\_\_\_ » \_\_\_\_\_  
 (code and name of the degree program)

**4. Learning outcomes**

The expected learning outcomes (LO)	Indicators of achievement of LO (IA) (for each LO at least 2 indicators)
<b>1.To know:</b>	<b>1.1</b>
	<b>1.2</b>
<b>2.To be able to:</b>	<b>2.1</b>
	<b>2.2</b>
<b>3.To possess skills:</b>	<b>3.1</b>
	<b>3.2</b>

## 5 Calendar and thematic plan

Week	Lecture topic	Topic of practical work	Topic of laboratory work	Reference to literature	Task	Deadline for submission
Module 1						
1						
2						
3						
4						
<i>Modular tasks</i>						
Module 2						
5						
6						
7						
8	<i>Modular tasks</i>					
	First interim attestation					Week 8
Module3						
9						
10						
11						
12						
<i>Modular tasks</i>						
Module 4						
13						
14						
15	<i>Modular tasks</i>					
	Second final attestation					Week 15
	Examination					Based on the schedule

## 6 Literature and resources

Literature	Internet resources (links must be active)

\*Literature is available in the electronic resources of the library.

\*\* The required literature should not be older than 10 years.

~ The literature is available on the teacher's learning portal.

- Electronic library of University -[library@satbayev.university](mailto:library@satbayev.university);
- Republican Interuniversity Electronic Library(RIEL)-  
<http://rmebrk.kz/>;

## 7 Competence framework

Descriptors of training	Competencies				
	Natural science and theoretical worldview	Socio-personal and civil	General engineering professional	Cross-cultural and communicative	Specialty-professional
Knowledge and understanding					
Application of knowledge and understanding					
Expression of judgments and analysis of actions					
Communication and creative abilities					
Self-learning and digital skills					

## 8 Schedule of submission of mandatory assignments:

# s/n	Types of control	Maximal points for a week	Weeks															Total maximal points
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
1	Activity in lecture discussions																	
2	Performance of tasks (TSIS)				2,5					2,5				2,5			2,5	10
3	Independent study of the student (SIS)				2,5					2,5				2,5			2,5	10
4	Performance of practical / laboratory tasks				5					5				5			5	20
6	1 <sup>st</sup> interim attestation (Midterm)																	10
8	2 <sup>nd</sup> final attestation (End of term)																	10
9	Final Examination**																	40
	Total																	100

## 9 Evaluation rating and possible final versions of assessments according to criteria

Letter grade	GPA	Points	Criteria
A	4	95-100	The student demonstrates knowledge and ability that surpasses the expected outcomes from the course
A-	3,67	90-94	The student meets the highest standards of knowledge
B+	3,33	85-89	The student meets high standards of knowledge (very good)
B	3	80-84	The student meets high standards of knowledge (good)
B-	2,67	75-79	The student demonstrates more than sufficient knowledge approaching high standards
C+	2,33	70-74	The student demonstrates sufficient knowledge according to general standards



C	2	65-69	The student satisfies and conforms to common standards of knowledge
C-	1,67	60-64	The student satisfies, but to some degree does not meet the standards
D+	1,33	55-59	The student minimally satisfies, but does not meet standards in a wide range of knowledge
D	1	50-54	Minimum satisfactory passing grade with questionable compliance with the standards
FX	0,5	25-49	Temporary grade: unsatisfactorily low score, retake of the exam is required
F	0	0-49	The student did not try to master the course. It is also assigned when the student tries to get a grade at an exam by cheating
I	0	0	Temporary grade: the student completed most of the course successfully, but did not complete the final control activities due to valid circumstances
W	0	0	The student withdrew from the discipline voluntarily and did not master it till the 6 <sup>th</sup> academic week
AW	0	0	The student is withdrawn from the course by a teacher for systematic violations of academic regulations and rules

## 10 Assessment criteria

All tasks except tests are assessed in accordance with the four criteria:

- Accuracy and exactness (A) – 30 % (how accurately and exactly the work is calculated)
- Creativity (C) -30% (how and in what way the work is presented);
- Maturity completeness (M) – 40% (how deeply, logically and structurally the work is solved);
- Originality (O) – a specific coefficient (1.0; 0.5 or 0) is used (uniqueness, avoiding the plagiarism)

Criteria	Excellent (0.9-1.0)	Good (0.7-0.9)	Satisfactory (0.4-0.7)	Unsatisfactory(0-0.4)
Accuracy and exactness				
Creativity and inventiveness				
Maturity and completeness				
Originality				

The overall score will be calculated using the formula:

$$Grade = (A + C + M) \times O$$

### Maximum assessment of knowledge by type of tasks

Tests and activeness	
Student's Independent Study (SIS)	
Practical classes and bonus	
Laboratory classes	
1st interim attestation(Midterm)	
Course project	
2nd interim attestation (End-of-term)	
Final examination	<b>40</b>
Total	<b>100</b>

## Late Submission Policy

The student must come prepared for lectures and practical (laboratory) classes. Timely protection and full performance of all types of work (practical and independent) is required. The student should not be late and miss classes, be punctual and mandatory. It is planned to reduce the maximum score by 10% for untimely work. If you are forced to skip the intermediate attestation for good reasons, you should warn the teacher in advance before it, so that you can pass the boundary control in advance. Skipping an exam for a disrespectful reason deprives you of the right to take it. If you miss the exam for a good reason, a special permit is issued and the date, time and place of the exam are assigned.

## 12 Academic Conduct and Ethics Policy

Be tolerant and respect other people's opinions. Formulate objections in the correct form. Plagiarism and other forms of dishonest work are unacceptable. Prompting and cheating during exams, passing the exam for another student are unacceptable. A student caught falsifying any course information will receive a final grade of "F".

*Activeness* in lectures and practical classes is mandatory and is one of the components of your final score/assessment. Many theoretical questions supporting the lecture material will be presented only at lectures. Therefore, skipping a class can affect your academic performance and final grade. However, attending classes in itself does not mean an increase in points. Your constant active participation in the classes is necessary. A mandatory requirement of the course is to prepare for each lesson. It is necessary to review the specified sections of the textbook and additional material not only in preparation for practical classes, but also before attending the corresponding lecture. Such training will facilitate your perception of new material and will contribute to your active acquisition of knowledge within the walls of the university.

**Assistance:** For advice on implementing the independent work, their delivery and protection, as well as for additional information on the material covered and all other questions arising on the course being read, contact the teacher during their office hours or via electronic means of communication during working hours.

### **During training**

Mandatory participation in training sessions according to the schedule, which determines the readiness for the lesson. In case of absence from the lesson, the student is obliged to notify the teacher within a day and explain the plan for self-study of the lesson:

- mandatory reading of the submitted materials before the lesson;
- delivery of tasks on time;
- 20% non-participation in the audience (for a good reason with supporting

documents) - rating "F (Fail)";

- plagiarism and cheating during the execution of the task are not allowed;
- mandatory use of electronic gadgets in the classroom, which is welcome, but it is unacceptable to use them in the exam.

Within the framework of training in the discipline, any corruption manifestations in any form are unacceptable. The organizer of such actions (teacher, students or third parties on their behalf) are fully responsible for violating the laws of the Republic of Kazakhstan.

Considered at the meeting of the department \_\_\_\_\_  
minutes #\_\_ dated «\_\_» \_\_ 20\_\_\_. *(name of the department)*

**Head of the department**

**Full name**

**Course/Syllabus designer**

**Full name**

## REGISTRATION SHEET ON CHANGES

Serial number of the change	Section, item of the document	Type of the change (to replace, cancel, add)	Notification number and date	The change was made	
				Date	Surname and initials, signature, position