

APPROVED By the decision of the Board of International University of Information Technologies JSC Chairman of the Board, Rector /signature is applied/ Khikmetov A.K. <u>01.07. 2022</u> /seal is applied/ Minutes No. <u>64</u> <u>01.07. 2022</u>

RULES FOR THE DEVELOPMENT AND EXECUTION OF THE WORK EDUCATIONAL PROGRAM OF THE DISCIPLINE (SYLLABUS)

P-57 Revision 2

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1. PURPOSE AND SCOPE

- 1.1. These rules have been developed to assist teachers in the development and execution of the work educational program of the discipline (syllabus) for EP of higher and postgraduate education.
- 1.2. The syllabus is developed based on the EP work educational plan.
- 1.3. The syllabus is compiled in the language of teaching the discipline: Kazakh, Russian or English.
- 1.4. The syllabus is discussed at a meeting of the department and agreed with the Department of Educational and Methodological Activities.
- 1.5. Approved at meetings of the Board for Academic Quality of the Faculty.

2. REGULATORY REFERENCES

- Rules for organizing the educational process using credit technology of education, approved by order of the Minister of Education and Science of the Republic of Kazakhstan dated April 20, 2011 No. 152, as amended and supplemented dated 12.10.2018;
- Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 31, 2018
 No. 604 "On approval of state compulsory educational standards at all levels of education";
- Model rules for the activities of educational organizations of the relevant types, approved by order of the Minister of Education and Science of the Republic of Kazakhstan dated October 30, 2018 No. 595;
- Organization of the educational process using credit technology of education based on the general principles of the League of Academic Honesty.

3. TERMS, DESIGNATIONS AND ABBREVIATIONS

- 3.1. Academic credit is a unified unit of measurement of the volume of scientific and (or) educational work (load) of a student and (or) teacher.
- 3.2. The academic period is a period of theoretical study, established independently by the educational organization in one of three forms: semester, trimester, quarter.
- 3.3. Academic hour is a unit of measurement of the volume of training sessions or other types of educational work, 1 academic hour is equal to 50 minutes, used when drawing up the academic calendar (schedule of the educational process), class schedule, when planning and recording the educational material completed, as well as when planning the teaching load and accounting for the work of the teacher.
- 3.4. Bachelor's degree is a level of higher education aimed at training personnel with the award of a "bachelor's" degree in the relevant educational program.
- 3.5. The point-rating letter system for assessing educational achievements is a system for assessing the level of educational achievements in points corresponding to the letter system accepted in international practice with a digital equivalent, and allowing to establish the rating of students.
- 3.6. Final certification is a procedure carried out to determine the degree to which they have mastered the scope of academic disciplines and (or) modules and other types of educational activities provided for by the educational program in accordance with the state compulsory standard of the corresponding level of education.

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- 3.7. A student is a participant in the educational process who intends to complete the educational program and receive an academic degree of the appropriate level. Students include: students, master's students and doctoral students.
- 3.8. The cumulative system is a new assessment system that takes into account each stage of the completion of educational tasks, which allows to accumulate points. The accumulative system stimulates students' independent activity and helps improve the quality of knowledge.
- 3.9. Postrequisites disciplines and (or) modules and other types of educational work, for the study of which require knowledge, abilities, skills and competencies acquired upon completion of the study of this discipline and (or) modules.
- 3.10. Prerequisites—disciplines and (or) modules and other types of academic work containing knowledge, abilities, skills and competencies necessary for mastering the discipline and (or) modules being studied.
- 3.11. A work educational plan is an educational document developed by a university independently on the basis of the educational program and individual educational plans of students.
- 3.12. Student's independent work (hereinafter referred to as SIW) is work on a specific list of topics allocated for independent study, provided with educational and methodological literature and recommendations.
- 3.13. Grade Point Average (GPA) is a weighted average assessment of the level of educational achievements of a student for a certain period in the chosen program (the ratio of the sum of the products of credits to the digital equivalent of final assessment points for all types of educational work to the total number of credits for these types of work for a given period of study).
- 3.14. A standard educational program is an educational document of a discipline of a compulsory component of the educational program, which determines the content, volume, and recommended literature.
- 3.15. Adviser is a teacher who performs the functions of an academic mentor studying in a relevant educational program, providing assistance in choosing an educational trajectory (formation of an individual educational plan).
- 3.16. Examination session is the period of final monitoring of the degree of students' mastery of the educational program in the specialty/educational program.

Abbreviations:

ECTS – European Cradit Transfer and Accumulation System

GPA - Grade Point Average

SAC - State Attestation Commission

SEC - State Examination Commission

FSA - Final State Attestation

FEP1 - Final Educational Plan

CED - Catalogue of Elective Disciplines

SSRW/MSSRW/DSSRW - scientific research work of a student/master's student/doctoral student

WEP1 - Work Educational Plan

SIW/MSIW/DSIW - independent work of a student/master's student/doctoral student

SIWT/MSIWT/DSIWT - independent work of a student/master's student/doctoral student under the guidance of a teacher

SEP - Standard Educational Program

DTM - Discipline Teaching Materials

4. GENERAL PROVISIONS

- 4.1. Syllabus is a document containing the main characteristics of the discipline being studied. It should be noted that the syllabus represents information for students, so it must be written in accessible language so that the student clearly understands the goals of studying this discipline. The syllabus is a necessary tool that will preserve the integrity of the educational process and a good relationship between teacher and student, and also ensure the quality of independent work.
- 4.2. The syllabus includes a brief summary of the academic discipline, the purpose of its study, objectives, competencies, a schedule of topics, a list of tasks for independent work, a system for assessing academic performance and a list of recommended literature.
- 4.3. The syllabus must contain clear criteria for assessing students' knowledge control (SIW, module test, midterm control, intermediate control (exam), etc.).
- 4.4. The syllabus is reviewed at a meeting of the department, signed by the compiler, the head of the department, checked for compliance by the responsible manager of the Department of Educational and Methodological Support, and approved by the Dean of the Faculty of the University.
- 4.5. Syllabus structure:
- Cover page (Appendix 1);
- Back side of the cover page (Appendix 2);
- General information;
- Goals, objectives and results of teaching the discipline;
- Description of the discipline;
- Course policy;
- Literature;
- Course schedule;

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- List of assignments for laboratory, practical and independent work of students (students, master's students, doctoral students);
- System for assessing academic progress in the discipline;
- Assessment criteria;
- List of questions for assessment;
- Bibliography.

5. FORMATION OF SYLLABUS

5.1. Cover page

- The cover page indicates: the name of the educational institution, the name of the faculty and department, the name and code of the discipline, the code and name of the SEP and EP, course, semester of study, number of credits, types of classes, form of control, number of hours;
- The data is taken from the EP educational plans. The cover page is drawn up in accordance with Appendix 1 to this document.

5.2. Back side of the cover page

- The syllabus is considered at a meeting of the department, signed by the head of the department and the manager of the educational and methodological department, approved by the Dean of the faculty;
- All numbers and dates of minutes of meetings are recorded on the back side of the cover page. The back side of the cover page is drawn up in accordance with Appendix 2 to this document.

5.3. Standard educational program for the discipline (must be specified if available)

5.4. General information.

- This section indicates the following information about the course: name of the faculty, code and name of the group of educational programs, code and name of the EP, course, semester, discipline cycle, number of credits (according to ECTS), prerequisites and postrequisites, information about the lecturer and teacher of laboratory (practical) classes.

1. General information			
Faculty			
Code and name of the group of			
educational programs			
Code and name of the educational			
program			
Course, semester			
Discipline cycle	General education, basic, major		
Number of credits (according to			
ECTS)			
Prerequisites			
Postrequisites			

Lecturer	(Full name, position, academic degree, office, telephone/fax, email address, consultation schedule, etc.)
Teachers conducting laboratory (practical) classes	(Full name, position, academic degree, office, telephone/fax, email address, consultation schedule, etc.)

5.5. Goals, objectives and results of teaching the discipline

The goal, objectives of the course and educational outcomes of the course are described.

- The goal of the discipline must contain the answer to the question: what is this discipline intended to serve as a formation? It is necessary to determine and formulate a goal that will reflect changes after studying this discipline;
- Objectives are a specific expression of a goal, an answer to the question: what does this discipline
 introduce, what will teach, what does it develop and reveal. Objectives are subgoals (mini-goals), the
 implementation of which will ultimately allow to achieve the goal;
- The discipline educational outcomes indicate what the student should know and be able to do after completing the course, what skills to have, and to be competent;
- Knowledge in the pedagogical sense is the understanding, retention in memory and reproduction of facts, ideas of science, concepts, principles and rules, laws and patterns, concepts, theories. The acquired knowledge is characterized by completeness, systematicity, awareness and effectiveness;
- Skill is "knowledge in action", that is, mastery of ways to apply knowledge in practice;
- Skills are abilities that have become automatic due to multiple repetition. A skill consists of simple techniques of activity, but when developing a skill, control and regulation by the teacher is required;
- Competencies are the practical application of knowledge, skills and abilities acquired in the educational process.

2. Goals, objectives and results of teaching the discipline			
Goal of the course:			
Objectives of the course:			
Expected study results			
(-knowledge, abilities, skills and competencies			
acquired by students)			

5.6. Description of the discipline.

Summary of the discipline, main topics (sections).

3. Description of the discipline	
(Subject)	

5.7. **Course policy**.

- do not be late and do not miss classes;
- actively participate in classes;

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- make up laboratory classes missed for good reasons (with permission from the dean's office);
- coursework must be submitted for defense no later than in the last week of the semester;
- independently study the topics suggested by the teacher in libraries and at home.
- To acquire knowledge and skills in the discipline, it is necessary that students complete the teacher's assignments in a timely and accurate manner, as well as individual assignments designed for independent work. Students are required to familiarize themselves with the basic and additional literature recommended by the teacher;
- When completing an assignment, students should not copy or reproduce the results of the work of other students, scientists, practitioners, engage in plagiarism or compile texts;
- It is recommended: complete homework on time and in full, actively participate in the educational process, promote teamwork; develop your intellectual and public speaking abilities, visit the library more often:

Period	Assignments	Number of points	Total
1st midterm	Laboratory works:	35	100
control (MC 1)	LW 1,	7	
	LW 2,	7	
	LW 3,	7	
	LW 4,	7	
	LW 5,	7	
	Practical classes:	25	
	Exercise 1,	5	
	Exercise 2,	5	
	Exercise 3,	5	
	Exercise 4,	5	
	Exercise 5,	5	
	Midterm control	25	
	SIW assignments	15	

Option 1

2nd midterm	Laboratory works:	35	100
control (MC 2)	LW 1,	7	
	LW 2,	7	
	LW 3,	7	
	LW 4,	7	
	LW 5,	7	
	Practical classes:	25	
	Exercise 1,	5	
	Exercise 2,	5	
	Exercise 3,	5	
	Exercise 4,	5	
	Exercise 5,	5	
	Midterm control	25	
	SIW assignments	15	
Final	Exam		100
	Total	100	

Option 2

The exam access score (A) accumulates throughout the semester. Each type of educational work is assessed on a 100-point scale, taking into account a weighting coefficient in accordance with the table

<i>Example</i> Importance of each type of work				
Period	Parameter	Weighting coefficient	Total	
1st midterm	Performing laboratory practical work	0.2		
control	Course work	0.3		
(MC 1)	Calculation and graphic work	0.3	100	
	Attendance at lecture classes	0.1		
	Work in practical classes	0.1		
2nd midterm	Performing laboratory practical work	0.2		
control	Course work	0.3		
(MC 2)	Calculation and graphic work	0.3	100	
	Attendance at lecture classes	0.1		
	Work in practical classes	0.1		
Exam			100	
TOTAL	0.3*MC1+0.3*MC2+0.4*Exam		100	

 \ast If absenteeism is more than 20%, then the student is automatically transferred to the Retake (summer semester)

5.8. Course schedule

- A course schedule is a document designed to implement the requirements for the minimum content and level of training of students in an academic discipline.
- The teacher's course schedule is a mandatory document that facilitates the organization of the educational process in the discipline, ensuring methodologically correct planning of the implementation of the educational program in a certain sequence and in connection with related disciplines.

Week/dates	Subject of the course	Literature references	Lectures (h/w)	Practical/se minars (h/w)	Laboratory (h/w)	SIWT (h/w)	SIW (h/w)
1	2	3	4	5	6	7	8
1							
2							
3							
4							
5							
6							
7							
8	MC1						
9							
10							
11							
12							
13							
14							
15	MC2						
	Total hours:						

5.9. List of topics/tasks for laboratory classes

S No.	Topic name	Number of hours	Literature references	Reporting form	Deadline
1	2	3	4	5	6
1					
2					
3					
	Total				

S No.	Topic name	Number of hours	Literature references	Reporting form	Deadline
1	2	3	4	5	6
1					
2					
3					
	Total				

5.10. List of topics/tasks for practical classes

5.11. List of tasks for student's independent work (SIW).

Proper organization of student's independent work is the key to the formation of skills in mastering, studying, assimilating and systematizing acquired knowledge, ensuring a high level of academic performance in the educational process.

S No.	Topic name	Number of hours	Literature references	Reporting form	Deadline
1	2	3	4	5	6
1					
2					
3					
	Total				

5.12. System for assessing academic performance in the discipline

Option 1

Period	Assignments	Number of	Total
		points	
1st	Laboratory works:	35	100
midterm	LW 1,	7	
control	LW 2,	7	
(MC 1)	LW 3,	7	
	LW 4,	7	
	LW 5,	7	
	Practical classes:	25	
	Exercise 1,	5	
	Exercise 2,		
	Exercise 3,	5 5	
	Exercise 4,	5	
	Exercise 5,	5	
	Midterm control	25	
	SIW assignments	15	
0.1		25	100
2nd	Laboratory works:	35	100
midterm	LW 1,	7	
control	LW 2,	7	
(MC 1)	LW 3,	7	
	LW 4,	7	

	LW 5,	7	100
	Practical classes:	25	
	Exercise 1,	5	
	Exercise 2,	5	
	Exercise 3,	5	
	Exercise 4,	5	
	Exercise 5,	5	
	Midterm control	25	
	SIW assignments	15	
Exam			100
TOTAL	0.3*MC1+0.3*MC2+0.4*Exam		100

* If absenteeism is more than 20%, then the student is automatically transferred to the Retake (summer semester)

Each type of educational work is assessed on a 100-point scale, taking into account a weighting coefficient in accordance with the table

Period	Assignments	Maximum point	Weighting coefficient	Total
1st	Performing laboratory practical work	100	0.2	
midterm	Course work	100	0.3	
control	Calculation and graphic work	100	0.3	100
(MC 1)	Attendance at lecture classes	100	0.1	
	Work in practical classes	100	0.1	
2nd	Performing laboratory practical work	100	0.2	
midterm	Course work	100	0.3	
control	Calculation and graphic work	100	0.3	100
(MC 2)	Attendance at lecture classes	100	0.1	
	Work in practical classes	100	0.1	
Exam				
TOTAL	0.3*MC1+0.3*MC2+0.4*Exam			

* If absenteeism is more than 20%, then the student is automatically transferred to the Retake (summer semester)

5.13. Work assessment criteria

Option 1

An example of assessment criteria on a 5-point scale for laboratory work:

Points	Assessment criteria
5	The work has been completed in full and the correct answers to additional questions
	from the teacher within the framework of this program have been received.
4	The work has been completed in full, but mistakes were made when answering
	additional questions from the teacher.
3	The work has been completed in full, the correct conclusions were drawn, however,
	there were some violations of the design requirements, for example, errors in the design
	of graphs, tables or in recording measurement results. After instructions from the
	teacher, these shortcomings were eliminated.
2	The work was completed incompletely, for example, error calculations were not carried out or were carried out incorrectly, some results are incorrect, the findings of the conclusion do not correspond to reality, there are significant errors in the graphic data. After instructions from the teacher, the main deficiencies were eliminated , the graphs were corrected.

1	The work was completed incompletely, for example, there are errors in the calculations
	of most or all of the required quantities, there are no errors, the results are mostly
	present, but not correct, the findings of the conclusion do not correspond to reality, there
	are significant errors in design, there are no graphs, calculation formulas are not
	indicated, etc. After instructions from the teacher, the main deficiencies were eliminated.
0	The work was completed incompletely, for example, there are errors in the calculations
	of most or all of the required quantities, there are no errors, the results are mostly
	present, but not correct, the findings 10 of the conclusion do not correspond to reality,
	there are significant errors in design, there are no graphs, calculation formulas are not
	indicated, etc. After instructions from the teacher, the main deficiencies were eliminated.

A point-rating letter system for assessing the accounting of educational achievements of students with their transfer to the traditional grading scale:

Letter	Points	Digital	Criteria
system		equivalent	
grade		of grade	
A	4	95-100	"Excellent" - deserves a student who has demonstrated a comprehensive, systematic and deep knowledge of the educational material, the ability to freely perform practical assignments provided by the program, has mastered the basic literature and is familiar with additional literature recommended by the program.
A-	3.67	90-94	"Excellent" - deserves a student who has demonstrated a comprehensive, systematic and deep knowledge of the educational material, the ability to freely perform practical assignments provided by the program, has mastered the basic literature but is not familiar with the additional literature recommended by the program.
B+	3.33	85-89	"Good" - awarded to students who have demonstrated the systematic nature of knowledge in the discipline and are capable of independently replenishing and updating it in the course of further educational work and professional activities.
В	3.0	80-84	"Good" - awarded to students who have demonstrated the systematic nature of knowledge in the discipline but who are not capable of independently replenishing and updating it in the course of further educational work and professional activities.
B-	2.67	75-79	"Good" - awarded to students who do not have a systematic knowledge of the discipline and who are not capable of independently replenishing and updating it in the course of further educational work and professional activities.
C+	2.33	70-74	"Good" - awarded to students who do not have a systematic knowledge of the discipline and who are not capable of independently replenishing and updating it in the course of further educational work

			and professional activities.
С	2.0	65-69	"Satisfactory" - awarded to students who made errors when
			completing assignments, but have the necessary knowledge to
			eliminate them under the guidance of a teacher.
C-	1.67	60-64	"Satisfactory" - awarded to students who made errors when
			completing assignments and do not have the necessary knowledge to
			eliminate them.
D+	1.33	55-59	"Satisfactory"
D-	1.0	50-54	"Satisfactory"
FX	0.5	25-49	"Unsatisfactory"
F	0	0-24	"Unsatisfactory"

5.14. List of questions for knowledge control:

- List of exam questions on the topics of lectures.
- Form of intermediate certification (exam): written, oral, comprehensive, project, testing.
- A sample examination paper indicating the assessment criteria (required).

5.15. List of references (basic and additional).

- The names of textbooks, teaching aids, usually available in the library, or addresses of electronic resources, where the stated content of the academic discipline is most fully reflected, are entered.
- When listing the literature used, it is necessary to divide the list into basic literature and additional literature. To use the list of references used in references, it is necessary to number the complete list.
- The main part of the section indicates literature whose publication depth does not exceed 5 years for technical literature and 10 years for humanitarian literature. Literature can be added to the additional part, regardless of the year of publication.

6. COMPILATION AND STORAGE OF SYLLABUS

- 6.1. The syllabus is formed by the issuing department responsible for the educational program, reviewed at a meeting of the department and the Faculty Academic Quality Board, and approved by the dean.
- 6.2. The original Syllabus is kept at the department, the head of the department is responsible for its safety.
- 6.3. A scanned copy of the approved syllabus is placed in the Platonus AIS.

COVER PAGE



Faculty of Information Technologies Department of_____

APPROVED BY Dean of the Faculty of International University of Information Technologies JSC

(Signature) (Full name)

WORK EDUCATIONAL PROGRAM OF THE DISCIPLINE (SYLLABUS)

Discipline:			
		(name of the discipline)	
Group of education	nal programs:		
		(Code, name)	
Educational progra	am:		
		(Code, name)	
Course	Semester	Number of credits	
Lectures		hours	
Laboratory classes		hours	
Independent work		hours	
TOTAL		hours	
Discipline cycle (Gl	ED (UC), BD, MD,	EC)	
Form of control			
		Almaty 20	

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Appendix 2

The work educational program of the basis of the EP work plan			
The work educational program (Sy	llabus) was discussed at the de	epartment meeting	
minutes No	dated,	20	
Head of the department			
	Signature	Full name, title, degree	
Prepared by			
	Signature	Full name, title, degree	
The work educational program of Academic Quality Board			
Tested for compliance:			
Directorate for Educational and Methodologic		name, title, degree	