MINISTRY OF SCIENCE, HIGHER EDUCATION AND INNOVATION OF THE KYRGYZ REPUBLIC

SCIENTIFIC, EDUCATIONAL AND PRODUCTION COMPLEX "JALAL-ABAD STATE UNIVERSITY NAMED AFTER B. OSMONOV"

Reviewed by the Academic Council of JASU named after B. Osmonov and recommended for approval
Protocol No. 1
"12" 09 2026

APPROVED
Rector of JASU named after B. Osmonov, Doctor of Technical Sciences, Professor
K. Zh. Usenov
"10" 09 2026

REGULATION

ON THE EDUCATIONAL AND METHODOLOGICAL COMPLEX

Amendments and additions were made by Protocol No. 1 of the Academic Council of JASU dated September 10, 2026.

Manas 2026

1. General Provisions

1.1. In accordance with Resolutions No. 590 of the Cabinet of Ministers of the Kyrgyz Republic dated September 24, 2024, and No. 329 dated June 10, 2025, amendments and additions have been made to the Regulation on the Educational and Methodological Complex in line with JASU regulations on the modular-rating system for assessing students' achievements, ongoing monitoring and interim assessment, computer-based testing of students' knowledge, students' independent work, preparation of test items for modules and examinations, and the working program of a discipline (module).

1.2. A well-designed educational and methodological complex (EMC) is a complete guide that enables another qualified specialist to continue teaching a course without interruption if the instructor is absent or replaced. For students, it is a roadmap that clearly shows what they need to do during the semester.

The EMC includes educational and methodological documents that support all types of classes, students' independent work, educational and industrial practice, implementation of educational technologies, ongoing assessment of achievement, and interim assessment. Where practice is provided for a discipline (module), the programs for all types of practice are included in the EMC. The development and use of the EMC in the educational process are aimed at implementing the graduate competency map.

The EMC is not merely a document; it is the "passport" and teaching guide for an entire discipline. It consists of two parts: (1) methodological framework and (2) content section.

Internal components:

• Working program or syllabus of the discipline: the principal agreement between instructor and student. It specifies the course objective, competencies students are expected to acquire, learning outcomes, assessment policy, weekly plans, and distribution of hours.

• Collection of theoretical materials: lecture notes or brief outlines; for online courses, links to video lectures and presentations.

• Guidelines for practical/laboratory work: a clear description of what students do in each class and which tasks they complete.

• Innovative teaching technologies: innovative methods used in teaching and interactive assignments.

• Assessment Tools Bank (ATB): tools for checking students' knowledge, including questions for interim (module) and final (examination) assessment; tests, cases and situational problems; interactive tasks and topics for essays or projects.

• Students' independent work: a list of tasks students completes independently, with instructions, rules and deadlines. It is included as a separate section in the working program.

• Information support: lists of core and supplementary literature (books published in the last 5–10 years are recommended) and links to electronic libraries. Core literature must be available in the university library at a ratio of one copy per two students.

2. Main Requirements for the EMC

Although each higher education institution has its own internal regulations, general state and academic requirements apply to the development of the EMC.

2.1. Compliance with the State Educational Standard (SES). The EMC must fully comply with the state educational standard for the relevant specialty. The competencies to be developed through the discipline (general, general professional and professional) are not specified in the state educational standards developed in 2026. They are developed by a working group together with the relevant program director and recorded in a document called the competency map. Learning outcomes are then developed on the basis of these competencies. Learning outcomes are formulated as general learning outcomes (levels of the National Qualifications Framework of the Kyrgyz Republic) and professional learning outcomes. Competencies and learning outcomes must be clearly stated in the working program.

2.2. Logic and consistency. Topics must complement one another and follow the principle "from simple to complex." A lecture topic should not simply be repeated in a practical class. Practical classes should focus on key topics for consolidation, while tasks appropriate for independent completion should be assigned for students' independent work.

2.3. Transparency and clarity of assessment (criteria-based assessment). Assessment criteria must be clear. The required level of task performance and the achievements for which points are awarded must be specified in advance for each task in the ATB and communicated to students.

2.4. Relevance and up-to-date information. The EMC must be updated annually. Because teaching methods, science and technology, and legislation change rapidly, outdated information—especially literature lists—must be supplemented with current publications and digital sources.

2.5. Student-centred approach (interactivity). In line with modern requirements, the EMC should contain not only theory but also tasks that encourage students to think and develop practical skills, such as case studies, project work and interactive games. Types of tasks are listed in Appendix 1.

2.6. Coordination with employers. Learning outcomes should be developed in coordination with employers, together with objective methods for assessing them.

3. Sequence for Preparing the EMC

3.1. Working program or syllabus of the discipline. When developing the working program, the model program for the discipline prepared by the relevant department should be used, if one exists. The working program and syllabus constitute one document (Resolution No. 590 of the Cabinet of Ministers of the Kyrgyz Republic, September 27, 2024).

3.1.1. Abstract. The abstract introduces applicants, students and instructors to the specific features of the course. It indicates the discipline's status and intended audience; the institute and department that prepared the working program; the subject area; competencies developed during study; types and forms of assessment; organizational forms of study; and total workload. It should also explain how the discipline contributes to students' professional development and social skills as employees.

3.1.2. Explanatory note. It specifies: the course aim (mission) and objectives; the place of the discipline in the structure of the main educational program; competencies developed through the discipline; learning outcomes for each cycle; distinctive program features, including novelty, originality of the author's approach, redevelopment and changes made, aspects of the subject covered, chronological scope, etc.; and instructions for organizing students' independent work.

3.1.3. Course structure. The structure includes all course topics and the number of hours allocated to each in the curriculum. It identifies types of classes (lectures, laboratory/practical classes, consultations, independent work, etc.) and forms of ongoing and interim assessment.

Determining course workload by type of learning activity:

No.	**Item**	**Details**
1	Semester	_____
	Total workload	Credits: ____ Hours: ____
1	Classroom instruction	
	Including: lectures	
	Practical classes	
	Laboratory classes	
2	Students' independent work	
3	Module	
4	Assessment / reporting	

Course hour distribution: course title; semester; credits; total hours; lectures and weekly hours; practical classes and weekly hours; independent work and weekly hours; and workplace-based learning hours, where applicable.

No.	**Course title**	**Credits**	**Total hours**	**Lectures**	**Weekly hours**	**Practical classes**	**Weekly hours**	**Independent work**	**Weekly hours**	**Workplace-based learning hours**

3.1.4. Topics for independent work, submission formats and assignments.

No.	**Topics**	**Number of hours**	**Independent-work assignments (several may be listed according to the hours allocated)**	**Submission format**	**Literature used**
1					

Methodological recommendations for organizing students' independent work. These recommendations help students distribute their time rationally among discipline (module) sections and types of independent work. They may specify materials required for class preparation (book chapters, articles, etc.), links to practical and laboratory plans, and questions and tasks for independent

work. They must give students complete instructions on how to complete assignments, for example, how to write a project, solve case-study problems or conduct research. Appendix 1 may be used.

4. Innovative Technologies Used in Education. Innovative educational technologies are intended to develop general and professional competencies and expected learning outcomes. They combine traditional lectures and practical classes with interactive formats such as business and role-playing games, analysis of specific situations, projects and case studies. The balance between formats is determined by the objectives of the main educational program and the content of the discipline (module), in accordance with the SES. Innovative technologies are listed in Appendix 2.

5. Organization of the Student Achievement Assessment System. Assessment is conducted in accordance with the Regulation on the Modular-Rating System for Assessing Learners' Achievements.

Examination grading

scale: 90–100 — "5",

excellent; 80–89 — "4",

good; 60–79 — "3",

satisfactory; 0–59 — "2",

unsatisfactory.

Pass/fail assessment: 50–100 — pass; 0–49 — fail.

6. Fund of Assessment and Monitoring Tools (ATB). The rules for developing the ATB follow JASU's Regulation on the Procedure for Creating an Assessment Tools Bank for Monitoring Students' Current Performance and Interim Assessment. An indicative list of assessment tools is provided in Appendix 3. Other tools may be included depending on the specialty. The set of assessment tools for a discipline (module) must make it possible to determine the level of competencies being formed and learning outcomes achieved.

7. Educational, Methodological and Information Support for the Discipline (Module).

7.1. This section includes: core and supplementary literature; core and supplementary sources; reference and information publications; software; and Internet resources. Recommended textbooks, teaching aids and academic literature should be based on publications available in the JASU library. Core literature should be available at one copy per two students. Electronic resources available through the library should also be included. For basic disciplines in the general humanities, mathematics and natural sciences cycles, core literature should generally have been published within the last 10 years; for other core professional-cycle disciplines and variable components of all cycles, publications from the last 5–10 years should be included.

7.2. Material and technical support. This may include equipment needed for teaching, demonstration instruments, multimedia tools, educational films, slides, interactive panels, and requirements for classrooms, computer rooms, specially equipped classrooms and laboratories.

8. Content of the Discipline (Module).

8.1. Lecture plan. The lecture content should consist of sections, subsections and individual topics. It should list the questions covered in each lecture and indicate the number of hours. The author independently determines the order and logical sequence of sections, taking into account the course concept, chronology and trends in scientific development. Review questions or test items should follow each lecture, and the sources used should be cited.

9.1. Practical class plan. The thematic sections of the practical class plan should include topic titles; hours allocated to student tasks and study in class; questions for study and discussion; a list of required sources and literature with page numbers; and supplementary materials. All titles must correspond to the general list of sources and literature for the discipline. For interactive practical classes (business or role-playing games, debates, discussions, talk shows, etc.), the objectives, rules, participant roles and functions, interaction scheme and assessment criteria must be specified.

9.2. Laboratory class plan and methodological instructions. The plan should include laboratory topic titles, hours allocated, instructions for completing tasks, control questions to determine mastery of the material, and sources and literature related to each topic. Instructions should describe the sequence of student actions, connect tasks with previously acquired theoretical knowledge, and draw attention to the most important and difficult aspects.

10. Development of the EMC.

10.1. The instructor develops an EMC for every discipline (module) in the curriculum for the relevant field of study or specialty. Developing an EMC for the discipline taught is mandatory. Annual updates are recommended as science, technology and teaching methods evolve.

10.2. One EMC may be developed for several fields of study (profiles) or specialties if the discipline title, number of hours (credit units), content of general (GC) and professional (PC) competencies, and course content are consistent in the curricula.

10.3. Responsibility for developing the EMC rests with the department to which the discipline is assigned. The department head provides guidance to the responsible developer and ensures that instructors prepare and review their EMCs. An EMC may be developed by an individual instructor or a group of instructors.

11. Approval of the EMC.

11.1. The EMC is approved when it is first developed and whenever substantial changes are made.

11.2. The EMC is signed by its author/compiler; if it is prepared by a teaching team, it is signed by the team leader.

11.3. The signed EMC is submitted to the department for review. The department assesses its content and compliance with the SES and the main educational program (MEP). If there are no comments, the department head submits it to the institute's methodological council. If comments are made, the EMC is returned for revision.

11.4. After review by the department and the institute methodological council, the EMC is submitted to the university methodological council for review and approval. The JASU methodological council assesses compliance with the assignment, including the discipline's place in the curriculum, the list of competencies to be developed, learning outcomes for each cycle, and the number of hours and credits in accordance with the curriculum. If there are no comments, the council approves it and recommends it for use. The Chair of the JASU EMC approves it. If comments are made, the EMC is returned to the department.

11.5. The approved EMC is included in the documents of the main educational program and is an integral part of it.

12. Amendments to the EMC.

12.1. Changes to the educational and methodological materials of the EMC are made as necessary.

12.2. Grounds for amendments include: changes to the SES for the relevant field of study (specialty) and other regulatory documents; updates to the MEP, including curriculum clarification and proposals from stakeholders to update learning outcomes; developments in science, technology, culture, economics and the social sphere, and updates in teaching technologies; acquisition and publication of new literature; and other grounds.

12.3. Changes are confirmed by departmental minutes and recorded on a separate "Amendments Sheet," which forms an integral part of the EMC. Approval of amendments follows the same procedure as development of the EMC.

13. Access to the EMC.

13.1. Paper and electronic copies of the EMC are kept by the head of the MEP, within the MEP documentation, at the department responsible for teaching the discipline (module), and in the educational and methodological office.

13.2. The electronic version of the EMC is uploaded by the MEP head and instructor to the university-wide information database (AVN) before classes begin and made available to every student.

13.3. The MEP head, department head and instructor ensure access to the EMC for stakeholders, students and teaching staff.

Compilers:

S. Zh. Kubakov;

B. M. Turdubaeva;

Appendix 1. Types of Assignments

1. Reproductive assignments (checking the basics). Objective: to verify students' mastery of terminology and key concepts.

• Test section: closed questions (select one or more answers) and open questions (complete a definition).

• Terminology dictation: work with the discipline glossary.

• Create a mind map: visualize the structure of the topic under study or classify concepts.

2. Practice-oriented assignments. Objective: to teach students to apply theory in standard situations.

• Case study: describe a real problem situation; students analyze it using the material studied and propose a solution.

• Comparative analysis: compare two methods, texts or methodologies in a table using specified criteria.

• Working with sources: analyze specific articles, regulatory documents or information from digital libraries.

3. Assignments for students' independent work. Objective: deepen knowledge and develop information-search and research skills.

• Prepare an essay or report: provide a detailed response to a problem question, for example, "The impact of digitalization on the development of [discipline name]."

• Literature review: write a brief critical review of 2–3 relevant works on the topic.

• Search and research task: find examples in open databases illustrating a specific rule or phenomenon. Assign tasks that students can investigate, according to the discipline's specifics.

4. Monitoring and diagnostic assignments. Objective: check the development of competencies and achievement of learning outcomes.

• Project work: individual or group research resulting in a presentation, model or report.

• Situational problems: tasks such as "What would you do if…?" to assess the ability to act under non-standard conditions.

Appendix 2. Characteristics of Innovative Pedagogical Technologies

• They contain elements of innovation.

• They aim to achieve new educational outcomes (functional literacy, 21st-century skills, etc.).

• They use an activity-based approach to organizing the work of learners and instructors. Students acquire knowledge through actions aimed at achieving a meaningful goal, rather than merely memorizing theories and rules.

• They emphasize intellectual and creative development while taking learners' individual characteristics and needs into account.

• The relationship between instructor and student changes: the instructor's role shifts from transmitting knowledge to facilitating and organizing activity.

• They create a motivating and supportive environment.

• They develop critical thinking and research skills.

• They use digital and interactive environments.

Most effective technologies recommended for inclusion in the EMC:

• Interactive and digital tools: interactive whiteboards and online platforms (Moodle, ClassDojo, Canva, Kahoot and Quizizz).

• Critical-thinking methods: Bloom's taxonomy, cinquain, Fishbone, INSERT, "Know–Want to know–Learned" (KWL), cube method, graphic organizers, gallery walk, author's chair, ask-the-author activities, literary circles, argumentative and analytical essays, and other strategies.

• Collaborative learning: peer learning, jigsaw, group projects, project writing and the mosaic method.

• Real-world case collections: tasks aimed at solving industrial, environmental, ESG, management and other problems.

• Simulations and role-playing games: methodological guidance for modeling sector-specific processes.

• Reduce dry theory and develop practical manuals and cases aligned with industry and labor-market needs.

• Project-based learning technology.

• Research-based learning technology.

• Simulation/modeling technology.

• Learner-centred teaching technology.

Appendix 3. Indicative List of Assessment Tools

No.	Assessment tool	Brief description	What to include in the ATB

1	Business and/or role-playing games	Joint activity of a group of learners and an instructor, under the instructor's guidance, using games to solve educational and professional problems and realistic problem situations. This format allows assessment of skills and analysis and resolution of typical professional tasks.	Topic/problem, concept, roles and expected outcome for each game.
2	Case problem	A problem-based task presenting a realistic professional situation that learners must understand and solve.	Tasks for solving case problems.
3	Colloquium	A means of checking mastery of course topics or sections, organized as a discussion between learners and the instructor.	Questions on course topics/sections.
4	Written test/assessment	Checks the ability to apply acquired knowledge to solve a defined type of problem on a topic or section.	Complete set of assessment versions.
5	Round table, discussion, polemic, debate	Assesses learners' participation in discussing controversial issues and problems and their ability to justify their views.	List of discussion topics for round tables, discussions, polemics and debates.
6	Portfolio	A purposeful collection of a student's work demonstrating individual learning achievements in one or more disciplines.	Portfolio structure.
7	Project	The final result of planning and completing a set of	Topics for group and individual projects.

		educational and research tasks. It helps learners independently assess their knowledge while solving practical tasks and problems; it may be individual or group work.	
8	Workbook	A didactic package designed for independent student work and assessment of mastery of learning materials.	Workbook template.
9	Multi-level problems and assignments	Assignments at reproductive level (knowledge of facts, correct use of terms and concepts); reconstructive level (generalization and analysis of factual and theoretical material); and creative level (integration of knowledge across fields and justification of an individual position).	Complete set of multi-level problems and assignments.
10	Calculation and graphic work	Checks the ability to solve problems using a prescribed method or apply knowledge acquired in a discipline/module.	Complete set of tasks for calculation and graphic work.
11	Report/abstract	A written summary of theoretical analysis on a specific academic or research topic. It should reveal the topic's main substance, analyze different viewpoints and present the author's position.	Topics for reports/abstracts.
12	Presentation/oral report	A public presentation of results obtained on a specific educational-	Topics for presentations/reports.

		practical, educational-research or scientific topic; it is the outcome of a student's independent work.	
13	Interview/oral questioning	A specially organized conversation between instructor and learner to determine knowledge of a particular section, topic or problem related to the discipline.	Questions on discipline topics/sections.
14	Creative assignment	A partially structured task with a non-standard solution that allows integration and diagnosis of broad knowledge and justification of an individual position. It may be completed individually or in a group.	Topics for group and/or individual creative assignments.
15	Test	A system of standardized tasks that enables automated measurement of learners' knowledge levels.	Test item bank.
16	Training simulator	Technical equipment used to check students' professional skills and ability to control a specific physical object.	Complete set of simulator tasks.
17	Essay	A tool that allows learners to express their views in writing on a given problem, independently analyze it using concepts from the relevant discipline, and summarize and evaluate their own position.	Essay topics.