REGULATIONS

for the Development and Implementation of Improvement Plans (CAPA, Roadmaps) in the JAIU Quality Management System

1. General Provisions

1.1. These Regulations establish a unified procedure for the development, approval, implementation, monitoring, and closure of improvement plans (CAPA, Corrective and Preventive Actions) and roadmaps within the JAIU Quality Management System (QMS).

1.2. These Regulations apply to:

1. the university as a whole;
2. educational programs (including the "General Medicine" and "Computer Science and Computing" programs, etc.);
3. structural units (faculties, departments, divisions, centers, clinical bases, etc.).

1.3. These Regulations constitute a local QMS document and are applied in conjunction with:

1. the Regulations on the Quality Management System of JAIU;
2. Regulations on Internal Monitoring and Quality;
3. Regulations on Internal Audit and Self-Assessment of Educational Programs and the University;
4. Regulations on Risk and Opportunity Management;
5. other local regulations governing assessment and quality.

1.4. The purpose of these Regulations is to ensure a systematic improvement cycle based on the following principle:

identification → root cause analysis → planning → implementation → effectiveness evaluation → consolidation of changes.

2. Terms and Abbreviations

2.1. **CAPA (Corrective and Preventive Actions)** – a system of corrective and preventive measures aimed at eliminating identified nonconformities and preventing their recurrence.

2.2. **Improvement Plan (CAPA Plan)** – a documented set of measures specifying objectives, deadlines, responsible parties, resources, and performance indicators.

2.3. **Roadmap** – a high-level improvement plan for the medium term (1–3 years) by business area, operational unit, or department, linked to milestones and target indicators.

2.4. **Nonconformity** – failure to meet the requirements of a standard, regulatory act, internal policy, or stated key performance indicator (KPI).

2.5. **Process/Plan Owner** – the person (or department) responsible for the development, implementation, and reporting of a specific improvement plan.

3. Scope and Responsibility

3.1. The basis for developing CAPAs and roadmaps is the results of:

1. internal and external audits;
2. self-assessments of the university and educational programs;
3. accreditations (NAAR, AOPO, etc.);
4. surveys and questionnaires (students, faculty, employers, alumni);
5. analysis of academic performance, evaluations, research, and personnel policy;
6. risk and opportunity management (risk registers for educational programs and the university);
7. inquiries and complaints from students and faculty.

3.2. Responsibility:

1. **Rector**:
    1. approves major roadmaps and key university-level CAPA plans.
2. **JAIU Quality Council**:
    1. reviews the results of monitoring and audits;
    2. initiates and coordinates key improvement plans;
    3. monitors their implementation.
3. **Internal Monitoring and Quality Department (IMQD)**:
    1. coordinates the CAPA process;
    2. maintains a registry of CAPA plans and roadmaps;
    3. provides methodological support and summary reports.
4. **Program Directors, Deans, Department Chairs, and Division Heads**:
    1. initiate improvement plans within their areas of responsibility;
    2. appoint responsible executors;

3. ensure the implementation of measures.

4. Basis for developing improvement plans

4.1. CAPA plans must be developed in the following cases:

1. significant nonconformities are identified based on the results of internal/external audits;
2. comments and recommendations from accreditation agencies;
3. unsatisfactory performance indicators, dropout rates, or delays in completing the curriculum;
4. when high risk levels are identified (based on the risk register).

4.2. Improvement plans may also be developed:

1. based on survey results and feedback;
2. at the initiative of management, faculty, students, or employers;
3. as part of the strategic development objectives of the university and the educational program.

5. Stages of developing and implementing CAPA plans

5.1. Initiation

5.1.1. CAPA may be initiated by:

1. the Quality Council;
2. the Academic Council;
3. the dean, the head of the educational program, or the department chair;
4. the head of a structural unit.

5.1.2. The initiator records the problem/risk in **the CAPA Registration Form** (Appendix 1), specifying:

1. a brief description of the problem/recommendation;
2. source (audit, survey, data analysis, etc.);
3. dates, department, and operational unit;
4. an initial proposal regarding the type of action (corrective / preventive / improvement).

5.1.3. The registration form is forwarded to the OVMK for registration and assignment of a code (e.g., CAPA-24-OPLD-01).

5.2. Root-cause analysis

5.2.1. The plan owner (dean, head of the educational program, department chair, etc.) forms a working group for root cause analysis.

5.2.2. Root-cause analysis may be conducted using the following methods:

1. “5 Whys”;
2. Ishikawa diagram (fishbone diagram);
3. process analysis (SIPOC, flowcharts).

5.2.3. The results of the analysis are briefly recorded in the CAPA plan:

1. **root cause**;
2. **contributing factors**.

5.3. Development of an improvement plan (CAPA plan)

5.3.1. The CAPA plan is prepared using the form (Appendix 2) and must include:

1. a description of the problem/recommendation;
2. the improvement objective (SMART format, if possible);
3. a list of actions (corrective, preventive, developmental);
4. the type of each action (C – corrective, P – preventive, D – developmental);
5. responsible personnel;
6. deadlines;
7. required resources (human, financial, material, digital);
8. performance metrics (KPIs, indicators);
9. risks of non-compliance and measures to mitigate them (if necessary).

5.3.2. For educational programs (e.g., “Clinical Medicine”), the CAPA plan must be linked to:

1. the results of the educational program’s internal self-assessment;
2. the comments/recommendations of accreditation agencies;
3. the educational program’s risk and opportunity register;
4. the curriculum and the Regulations on the educational program.

5.4. Coordination and Approval

5.4.1. CAPA Plan:

1. is discussed at a meeting of the relevant unit (department, faculty, division);
2. coordinated with the Quality Management Committee (regarding compliance with the QMS);
3. if necessary, submitted to the Quality Council.

5.4.2. Plans:
1. **at the unit level** (department, division) are approved by the dean/head of the unit;
2. **for educational programs**—by the head of the educational program with the approval of the dean and the Quality Management Committee;
3. **at the university level**—by the Rector of JAIU upon recommendation of the Quality Council.

5.4.3. Upon approval, the CAPA plan becomes a mandatory document for implementation within the QMS.

5.5. Implementation and Monitoring

5.5.1. Responsible personnel implement the measures within the established timeframes.
5.5.2. Plan owner:
1. keeps track of the status of activities (completed/partially completed/not completed);
2. initiates adjustments to deadlines and implementation methods as necessary (in consultation with the QMS Manager).

5.5.3. OVMK:
1. organizes periodic monitoring of CAPA implementation (quarterly/semiannually);
2. prepares summary reports for the Quality Council and management.

5.6. Effectiveness Assessment

5.6.1. Upon completion of the measures, the achievement of objectives and indicators is evaluated:
1. reduction of identified nonconformities;
2. improvement in performance metrics (academic performance, satisfaction, accreditation results, faculty KPIs, etc.);
3. reduction in risk levels (based on the risk register).

5.6.2. Possible outcomes of the effectiveness assessment:
1. **CAPA is effective** – the measures are deemed sufficient, and the plan is closed;
2. **partially effective** – additional or corrective action is required;
3. **ineffective** – a new CAPA plan is initiated with a review of the root cause analysis.

5.6.3. The effectiveness assessment is recorded in **the Improvement Plan Implementation Report** (Appendix 3).

5.7. Closing CAPA and Archiving

5.7.1. The CAPA plan is considered closed when:
1. all actions have been completed;
2. the effectiveness has been documented;
3. there are no recurring nonconformities regarding the same issue (during the observation period, typically at least 1 semester/1 year—for accreditation comments).

5.7.2. An entry regarding the closure of the CAPA is made in the OVMK registry, indicating:
1. the closure date;
2. a brief conclusion on effectiveness.

5.7.3. CAPA documents (registration form, plan, reports, minutes) are retained:
1. for at least 5 years;
2. for CAPAs related to accreditation – until the next accreditation cycle + 1 year.

6. Improvement Roadmaps

6.1. A roadmap is a strategic document that:
1. combines several CAPAs and improvement projects;
2. sets out a sequence of steps for a period of 1–3 years;
3. is linked to key areas (e.g., “Digitalization of the ‘Clinical Medicine’ Educational Program,” “Internationalization of the Educational Program,” “Development of the Simulation Center”).

6.2. Roadmaps are developed:
1. the Quality Council and the Academic Quality Management Committee—for the university;
2. by the academic departments and heads of educational programs—for specific programs (including the “Clinical Medicine” educational program).

6.3. Standard structure of a roadmap (Appendix 4):
1. direction/goal;
2. key projects and activities;
3. timelines (by year/semester, quarter);
4. responsible departments;
5. key performance indicators (KPIs);

6. resources;
7. milestones.

6.4. Roadmaps are approved:

1. at the university level – by the rector;
2. at the educational program level – by the rector/vice rector for academic affairs upon recommendation of the Quality Council and the dean.

7. Documentation and Registers

7.1. The OVMK maintains:

1. **A registry of CAPA plans** (with codes, statuses, start dates, and closure dates);
2. **A register of roadmaps**.

7.2. Electronic records of CAPA and roadmaps may be maintained in the eBilim/QMS IS system (if the functionality is available).

7.3. All minutes of the Quality Council and meetings of deans' offices/departments where improvement plans are discussed serve as evidence of CAPA implementation.

8. Final Provisions

8.1. These Regulations shall enter into force upon approval by order of the Rector of JAIU.

8.2. Amendments and additions to these Regulations shall be made upon the recommendation of the Academic Affairs and Quality Control Office and the Quality Council and shall be approved in accordance with established procedures.

8.3. Managers at all levels are required to ensure that faculty and staff are informed about the procedure for developing and implementing improvement plans.

Appendix 1

CAPA REGISTRATION FORM

Code: CAPA-20__-____-__ (to be filled out by the OVMK)

1. Department / Business Unit: _____
2. Initiator (Full Name, Position): _____
3. Date of registration: **“_” _____ 2**0
4. Source

1. Internal audit
2. External audit / accreditation (NAAR, AOPO, etc.)
3. Self-assessment of the educational program / university
4. Surveys (students / faculty / employers / graduates)
5. Analysis of academic performance / dropout rates
6. Inquiries / complaints
7. Risk management
8. Other: _____

1. Brief description of the issue / comments / suggestions:
1. Category:

1. Non-compliance
2. High-level risk
3. Opportunity
4. Other: _____

1. Preliminary Action Type:

1. C – Corrective
2. P – preventive
3. D – Developmental

1. Proposed CAPA owner (department / responsible person):
1. Decision of the OVMK / Quality Council (summary):

Initiator’s signature: _____ Date: ***«___»___20***

Sign***ature of QMS employee: _____ Date:*** **«»_____20**

Appendix 2

CAPA Plan Form (Improvement Plan)

(preferably in an Excel spreadsheet, one row = one action)

IMPROVEMENT PLAN (CAPA PLAN)

CAPA Code: **CAPA-20__--__**

Department / Business Unit: _____

Plan Owner (Full Name, Position): _____

Implementation Period: From "_" _____ 20 to **"_" _____** 20

1. Improvement Objective

(formulated using the SMART framework)

2. Action Plan

No.	Action (what we are doing)	Type (C/P/D)	Root cause (what it addresses)	Person Responsible	Deadline (date/period)	Required resources	Indicator / KPI (how we'll know it worked)	Status (planned/in progress/completed/not completed)	Comment

Note:

In the header of the CAPA plan, you can additionally specify: the link to the risk register, comments from NAAR / AOPO, and a reference to the internal standard.

Appendix 3

Report on the Implementation of the Improvement Plan and Effectiveness Assessment

REPORT ON THE IMPLEMENTATION OF THE CAPA PLAN

CAPA Code: CAPA-20__-____-__
Department / OP: _____
Implementation Period: _____

1. Summary of Action Implementation

No.	Action	Scheduled deadline	Actual date	Status (completed / partially completed / not completed)	Reason for non-completion / deviation	Effectiveness assessment (yes/no/partially)	Comment

2. Key Performance Indicators (KPI) Trends

Indicator	Baseline value (pre-CAPA)	Target value	Actual value (after CAPA)	Measurement period	Conclusion

3. Conclusion on the effectiveness of CAPA

1. CAPA is deemed **effective** (objectives achieved, nonconformity resolved, risk reduced).
2. CAPA is partially effective (additional measures are needed).
3. CAPA is ineffective (a new plan or a review of the root cause analysis is required).

Brief justification:
Plan owner's decision:
Plan owner's signature: _____ *“”_____ 20*
OVMC Approval: _____ «» _____ 20

Appendix 4

Improvement Roadmap Template

(for a university or a specific educational program—the structure is the same)

ROADMAP FOR IMPROVEMENTS

Field / Educational Program: _____

Period: 20__ – 20__

Person Responsible for Implementation: _____

Roadmap Table

No.	Strategic area / block	Project / Initiative	Key activities (phases)	Timeline (quarter/year)	Responsible departments / individuals	Resources (financial, human, ICT, etc.)	Key Performance Indicators (KPIs)	Status / Completion notes

Rows can be grouped by categories (e.g., “Academic Process,” “Digitalization,” “Clinical Training,” “Human Resources”).

Example of a roadmap

for the "General Medicine" educational program for 2025–2027

(can be adapted to your timeframe)

ROADMAP FOR IMPROVEMENTS
"Clinical Medicine" Educational Program, JAIU
for 2025–2027

Responsible: Head of the “Clinical Medicine” Educational Program

Approved by: Dean of the Faculty of Medicine, Academic Council, Quality Council

No.	Strategic Direction	Project / Initiative	Key Activities	Timeline	Responsible Parties	Resources	Target KPIs	Status

1. "CAPA Register" Template (for OVMK / QMS)

It is recommended to maintain this in Excel (one file per university, with filters by academic programs and departments).

REGISTER OF CAPA PLANS FOR JAIU

No.	CAPA Code	Department / Educational Program	Source (audit, accreditation, questionnaire, etc.)	Brief description of the issue / comments	Action Type (C/P/D)	Plan Owner (Responsible Party)	Date of registration	Planned completion date	Status (planned / in progress / completed / closed / canceled)	Actual completion date	Effectiveness rating (effective/ partially effective/ineffective)	Note (link to risks, NAAR/AOPO, etc.)

You can add filters: by program, by source, by status.

2. Roadmap for the Digitalization of the “Medical Care” Operational Program (2025–2027)

ROADMAP FOR IMPROVEMENTS
for the "Digitalization of the 'Medical Care' Operational Program"
for 2025–2027

Responsible: Head of the “Clinical Practice” OP
Co-executors: UIO, IT Department, Simulation Center, Clinical Departments

No.	Strategic Area	Project / Initiative	Key activities (phases)	Timeline	Responsible Parties	Resources	KPIs / Targeted Outcomes

3. Roadmap for Clinical Databases and Clinical Performance (2025–2027)

ROADMAP FOR IMPROVEMENTS
in the area of "Clinical Bases and Clinical Performance"
for 2025–2027

Responsible: Vice Rector for Clinical Affairs / Head of the Clinical Practice Department
Co-executors: Dean of the Faculty of Medicine, clinical bases, OVMK

No.	Strategic Area	Project / Initiative	Key Activities	Timeline	Responsible Parties	Resources	KPIs / Targeted Outcomes

CAPA Plan

by clinical sites and performance in clinical disciplines

CAPA Code: CAPA-2025-OPLD-01
Department / Educational Program: Educational Program "Clinical Medicine," Clinical Departments
Plan Owner: Head of the "Clinical Medicine" Educational Program
Implementation Period: March 1, 2025, through December 31, 2026

1. Improvement Objective

1. Ensure that clinical training sites comply with NAAR/WFME requirements (facilities, mentoring, safety, and educational process).
2. Reduce the risk of unsatisfactory performance in key clinical disciplines by at least 20% over 2 academic years.

2. Action Plan (table)

No.	Action (What we are doing)	Type (C/P/D)	Root cause (what it addresses)	Responsible	Deadline	Required Resources	Indicator / KPI
	Introduce **a logbook/workbook** for **clinical skills** for 3rd–6th-year students: a list of mandatory clinical skills to be signed by mentors						
	Implement regular **analysis of clinical performance**: report template by discipline (by clinical departments and training sites, by type of assessment, percentage of "unsatisfactory" grades)						
	Introduce **mandatory CAPA** procedures **for clinical disciplines** where the "unsatisfactory" rate exceeds the threshold (e.g., >15%) or where there is a high percentage of students not admitted to the exam/OSCE						
	Develop and implement at least 2 cycles **of**						

	OSCE/mini-OSCE for key clinical disciplines (3rd–6th years) as a prerequisite for admission to the final exam						

1. Sample of a completed CAPA-2025-OPLD-01 Report

CAPA PLAN IMPLEMENTATION REPORT
CAPA Code: **CAPA-2025-OPLD-01**
Department / OP: **OP "Clinical Medicine," Clinical Departments**
Implementation Period: **March 1, 2025 – December 31, 2026**

1. Summary of Measures Implemented

No.	Activity	Scheduled date	Actual date	Status	Reason for non-completion / deviation	Effectiveness assessment	Comment

2. Key Performance Indicators (KPIs)

Indicator	Baseline (2024)	Target value (by the end of 2026)	Actual value (2026)	Measurement period	Conclusion
			88%		
			16.8%		
			73%		
			82%		
			Average		

3. Conclusion on the effectiveness of CAPA

1. **CAPA is generally considered effective.**
   The goals of reducing risks and improving clinical training have been partially/fully achieved:
   1. the contractual framework has been updated (88% of clinical sites);
   2. Regulations on on-the-job training, logbooks, and regular analysis of clinical performance have been introduced;
   3. two OSCE cycles were conducted, including a blocking component on clinical skills;
   4. CPD coverage for clinical mentors exceeded the target.

Limitations/remaining issues:

1. 3 clinical sites are still operating under temporary agreements;
2. For one clinical discipline, the effect of the local CAPA is considered partial (reduction in "unsatisfactory" ratings by less than 10%).

Plan Owner's Decision:

1. Close CAPA-2025-OPLD-01 as of December 31, 2026, as **effective**,
2. Simultaneously initiate a new CAPA-2027-OPLD-02 with a focus on:
   1. bringing contract renewals up to 100%,
   2. deepening work with discipline X (specify).

Plan Owner’s Signature: _____ /Full Name/ December 31, 2026
OVMC Approval: _____ /Full Name/ December 31, 2026

2. CAPA Plan for the Educational Program “Computer Science and Computing” (CSC)

Topic: Digitalization of the educational program, strengthening practice-oriented learning and academic performance.

CAPA PLAN

on the Digitalization and Quality of the Educational Program “Computer Science and Computing Technology”

CAPA Code: CAPA-2025-OPIVT-01
Department / Educational Program: Educational Program “Computer Science and Computing Technology”
Plan Owner: Head of the "Informatics and Computer Engineering" Educational Program
Implementation Period: April 1, 2025 – December 31, 2026

1. Improvement Objectives

1. Ensure the full-cycle use of the digital educational environment (LMS eBilim and specialized IT platforms) across all disciplines of the IT OP.
2. Increase the proportion of practice-oriented, project-based, and team-based assignments related to real-world IT challenges and partners.
3. Reduce the proportion of students with academic deficiencies in key disciplines—programming, computer architecture, and networking—by at least 20% over two years.

2. Action Plan (table)

No.	Action (what we are doing)	Type (C/P/D)	Root cause / problem	Responsible	Deadline	Resources	Indicator / KPI
	Develop and approve **a standardized syllabus/course outline template** for IVT with mandatory sections: digital platforms, project assignments, assessment criteria, alignment with competencies and SCOS						
	Introduce at least 1–2 **project-based or team-based assignments** per semester for each course (web, mobile, embedded, data, etc.), with rubric-based grading						
	Set up a system **for analyzing academic performance in key IT disciplines** (programming,						

	algorithms, databases, networks): report template + internal monitoring twice a year						
	Launch a program **of partnership mini-projects** with local IT companies/organizations (simple real-world tasks for student teams: a website, a small service, admin panels, etc.)						
	Organize **a series of masterclasses and technical meetups**: DevOps, cloud, AI, cybersecurity, featuring industry professionals						
	Implement **a mandatory version control and task verification system** (Git repositories, automated tests, code plagiarism checks) for key programming courses						

CHANGE LOG

Change No.	Basis for Amendment	Pages	Summary of the amendment	Revision	Signature	Date
1						
2						
3						

Edition:

Effective date: “ ” _____ 20

APPROVAL SHEET

№	Position / Role	Full Name	Signature	Date
1	Developed by	Kanetova D.E.		29.12.25
2	Approved: head of the responsible department	Ташиева Т.С		29.12.25
3	Approved: Head of the Educational and Informational Department	Kanetova D.E.		29.12.25
4	Approved: leading specialist for quality	Kalmuratova A.		29.12.25
4	Approved: head of the legal affairs and human resources department / lawyer	Sydykova B.J.		29.12.25
5	Approved: vice-rector for academic affairs	Sadyrova N.A.		29.12.25
6	Approved: vice-rector for science, SR and GE	Asilova Z.A.		29.12.25
7	Endorsed / considered in the established manner	JASU Scientific Council		29.12.25.