PROCESS MAP OF THE JAIU QUALITY MANAGEMENT SYSTEM

1. Purpose

The QMS Process Map of JAIU establishes the structure of the university's processes, their interrelationships, process owners, key inputs/outputs, performance indicators, and QMS documents that ensure quality management and continuous improvement.

2. QMS Inputs and Outputs (Top Level)

Inputs: regulatory requirements of the Republic of Kazakhstan, accreditation requirements, expectations of interested parties (students, employers, clinical sites), results of monitoring and audits, risks and nonconformities, eBilim data.
Outputs: prepared graduates (competencies), learning and assessment results, quality indicators (KPIs), management reports and decisions, improvement plans (CAPA), supporting QMS records, increased stakeholder satisfaction.

3. Structure of the process model (as shown in the diagram)

The JAIU process model includes 4 levels:

1. **Strategy and Quality** (Management and Leadership)
2. **Core university processes** (education, research and innovation, social/educational)
3. **Support and resources** (human resources, material and technical support, IT, clinical facilities, library, simulation center)
4. **Quality loop and documentation** (monitoring, audit, risks/CAPA, document flow, and records)

4. QMS Process Register (Top Level)

Legend:
M — management processes; **O** — core processes; **P** — support processes; **Q** — quality loop (closed-loop improvement cycle).

4.1 Management processes (M)

Code	Process	Process Owner	Key Outputs	Key KPIs (examples)	QMS Documents (Reference)
M1	Strategic Management and Development	Rector's Office	Strategic plan, development plans	Implementation of measures, achievement of strategy KPIs	QMS-01-02
M2	Quality Management (QMS Coordination)	Quality Council + OQM	Quality policy, decisions, improvement plans	Percentage of CAPAs closed on time, audit plan fulfillment	QMS-01-01, QMS-40-05, QMS-60-03/04
M3	Risk and Opportunity Management	OVMC	Risk register, response measures	Register validity, percentage of risks with measures	QMS-60-01/02

M4	QMS Management Review	Quality Committee	MR minutes, decisions, KPI adjustments	MR Frequency, % of Decisions Implemented	QMS-40-05

4.2 Core Processes (O)

Code	Process	Process Owner	Key Outputs	Key KPIs (examples)	QMS Documents (Reference)
O1	Design, Revision, and Approval of OP/OOP	Academic Department + Methodology Council	Curricula/Educational Programs, Educational Program Descriptions	% of OP revised according to schedule	SMK-20-01/02/03, SMK-20-04/05
O2	Implementation of the credit-based educational process	UIO + Academic Department + Dean's Office	Schedule, enrollment, academic process	Timeliness of schedules/registers, fulfillment of plans	SMK-20-06, SMK-20-12
O3	Assessment and Evaluation (ongoing/midterm/final)	Academic Affairs Office + UIO + Departments	Grades, grade sheets, module results	Percentage of grades submitted on time, percentage of outstanding grades	SMK-20-09, SMK-40-06
O4	Internships, clinical sites, and mentoring	Dean's Office/Internship Department + Departments	Practicum reports, facility agreements	% of sites with agreements/mentors, % of reports submitted on time	SMK-20-11, SMK-30-04
O5	Simulation training and **OSCE/OSPE** skills assessment	Simulation Center + Departments	OSCE protocols, checklists, results	% of students who passed OSCE, average score, % of stations without violations	SMK-30-03, SMK-20-14
O6	Science and Innovation	Science Department	Research, publications, projects	Number of publications/projects, Science KPIs	SMK-80-01…05
O7	Social and Educational Work	Educational Services	Programs, events, social work KPIs	Participation, satisfaction, KPIs	SMK-90-01…04

4.3 Support and Resources (P)

Code	Process	Process Owner	Key Outputs	KPIs (examples)	QMS Documents (Reference)
P1	Staffing and Development of Teaching Staff	HR	Staff, PC, DI	% of positions filled	SMK-10-09, SMK-10-12, SMK-30-08
P2	IT Infrastructure and Digital Services (eBilim/EDO)	IT	Service availability, reports	Uptime, SLA requests	QMS-30-02, QMS-30-07, QMS-70-04

P3	Management of training data and documents (records/reports/archive)	**UIO**	Reports, certificates, archive	Issuance deadlines, data completeness	SMK-10-07, SMK-70-05
P4	Library and information resources	Library	Collection, access to resources	Attendance, Availability	SMK-30-01
P5	Logistical Support	AHC	Logistics, logistics records	% of supply, update	SMK-30-05/06
P6	Occupational Health and Safety	OTiTB/AHC	Training sessions, reports	% of briefings, incidents	QMS-60-07/08/09

4.4 Quality System and Documents (Q)

Code	Process	Process Owner	Key Outputs	KPIs (examples)	QMS Documents (Reference)
Q1	Quality Monitoring and Evaluation	OQ	Monitoring reports, questionnaires	% of questionnaires returned, satisfaction index	SMK-40-01/02
Q2	Internal audit and self-assessment	OVMC	Audit reports, improvement plan	Number of nonconformities, % resolved	QMS-40-04
Q3	Nonconformity management and CAPA	QMS + process owners	CAPA, corrective actions	% of CAPAs completed on time	QMS-60-03/04
Q4	Document flow and QMS records (log, version control)	OVMC (+ IT for EDM)	Registry, current versions	% of documents up to date	QMS-70-01/02/03/05

5. Linking process maps to QMS documents (summary matrix)

1. **Strategy/Quality:** QMS-01-01…05, QMS-40-05, QMS-60-01…04
2. **Training:** QMS-20-01…14 (+ OCCE via QMS-30-03 and QMS-20-14)
3. **Resources:** QMS-30-01…08, QMS-60-07…09
4. **Quality loop:** SMK-40-01…08, SMK-70-01…06
5. **Science:** SMK-80-01…05
6. **Social/Educational:** SMK-90-01…04
7. **Ethics:** SMK-50-01…07

6. Note on Updates

The process map is reviewed **at least once a year** and whenever there are changes to the structure of JAIU, accreditation requirements, digital processes (eBilim/EDO), or based on the results of QMS management analysis.

Appendix. Process Card (TEMPLATE)

PROCESS CARD

Process Code: ____

Process Name: _____

Group: M / O / P / Q

Process Owner: _____

Co-executors: _____

Process objective: _____
Process boundaries (start–end): _____

Inputs: _____
Outputs: _____

Key steps (5–10 steps):

1. _____
2. _____
3. _____
4. _____
5. _____

Key Performance Indicators (KPIs) and Target Values:

1. KPI1: _____ (target: ___)
2. KPI2: _____ (target: ___)
3. KPI3: _____ (target: ___)

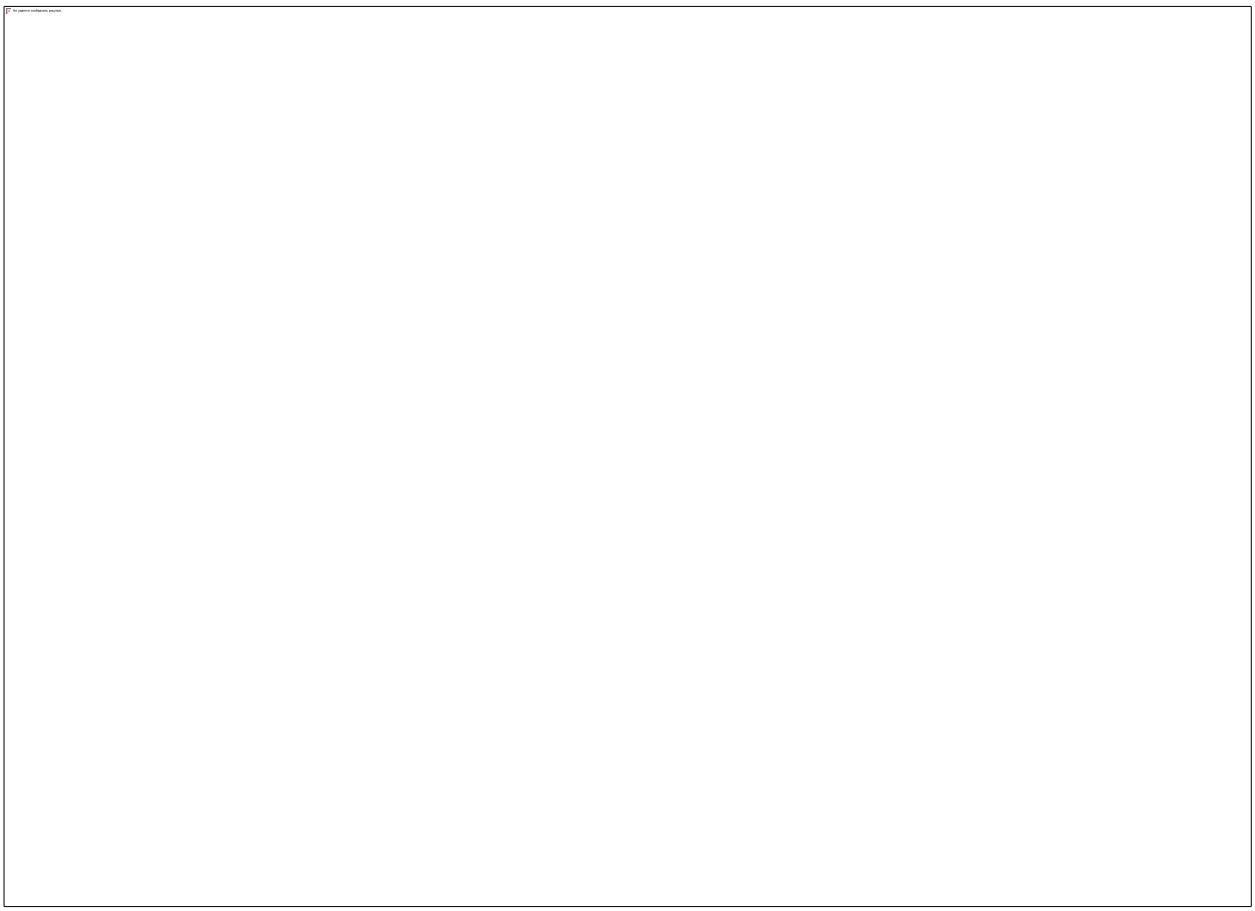
Process risks (link to risk register):

1. R1: _____ / Mitigation: _____
2. R2: _____ / Mitigation: _____

Records/evidence (what is retained):

1. _____
2. _____

Related QMS documents: _____
Related forms/templates: _____
Monitoring frequency: _____
Review frequency: _____



Appendix. Process Card O2

Process code: O2

Name: Implementation of the educational process using the credit system

Group: O (main)

Owner: UIO + Academic Affairs Office

Co-executors: Dean's Office, Departments, IT Service (eBilim), OVMK (Quality Data)

Process objective: To ensure the planning and implementation of the educational process in accordance with the educational programs/curricula, the credit system, and QMS requirements, with full traceability in eBilim.

Boundaries (start–end): from the approval of the curriculum/schedule to the end of the semester and the generation of final grade sheets/reports.

Inputs:

1. Approved educational programs/curricula, syllabi, academic calendar
2. Student body, orders (enrollment/transfer/withdrawal)
3. Faculty workload, resources (classrooms/computer center/facilities)
4. QMS regulations (credit system, eBilim)

Outputs:

1. Schedule, distribution by groups/subgroups
2. Classes held, attendance/activity logs (eBilim)
3. Interim reports (modules), final semester report
4. Performance/risk analytics (for the Academic Council and administration)

Key steps:

1. Entering/updating student enrollment and curricula in eBilim.
2. Creating course loads and schedules.
3. Organizing classes, monitoring attendance/participation.
4. Support for independent study assignments and tasks in the LMS, consultations.
5. Preparation for modular assessments/exams (eligibility checks).
6. Generating grade sheets, recording results, archiving.
7. Transferring data to the OVMK for quality analysis.

KPI:

1. KPI1: Timeliness of schedule approval/publication — target: ___% on time.
2. KPI2: Completeness of eBilim logs — target: ___% of courses/groups.
3. KPI3: Timeliness of generating reports — target: ___% on time.

Risks:

1. R1: Errors in enrollment data/curricula → action: double-check by academic departments + dean's office.
2. R2: eBilim failure/service unavailability → measure: backup procedure + IT SLA.

Records/evidence:

1. Curricula/calendar, schedules, enrollment orders
2. eBilim logs (attendance/activity), ledgers, reports

Related QMS documents: QMS-20-06; QMS-20-12; QMS-10-07; QMS-70-04/05

Forms/templates: schedule template, ledgers, module/semester reports

Monitoring: weekly/monthly; Review: annually.

Appendix. Process Card O3

Process code: O3
Name: Assessment and Evaluation (ongoing/midterm/final)
Group: O (main)
Owner: Academic Affairs Office + UIO
Co-executors: Departments/instructors, OVMK, IT (eBilim), Dean's Office
Process objective: To ensure objective, transparent, and consistent assessment of students' knowledge and skills, with recording of results and quality analysis.
Scope: From establishing criteria/FOS to publishing results and analyzing outcomes.
Inputs:
1. FOS, assessment criteria, BRS/modular system
2. Curriculum/syllabi, independent study assignments, tests
3. Group lists/student body, eligibility for assessment

Outputs:
1. Grades by assessment type, test results
2. Module/final grade sheets, protocols (if applicable)
3. Academic performance and risk analytics (arrears, trends)

Key stages:
1. Approval of criteria/FOS and communication to students.
2. Conducting ongoing assessments (assignments, tests, practical exercises).
3. Conducting midterm assessments (Module 1, Module 2).
4. Final assessment (exam/test) based on the approved model.
5. Entering results into eBilim and generating grade sheets.
6. Verification of accuracy, appeals (if any).
7. Analyzing results and initiating CAPA as needed.

KPI:
1. KPI1: Percentage of courses with approved learning outcomes/rubrics — target: ___%.
2. KPI2: Timeliness of entering grades into eBilim — target: ___% on time.
3. KPI3: Percentage of courses with semester-end results analysis — target: ___%.

Risks:
1. R1: Inconsistent grading → measure: standardized rubrics + internal oversight.
2. R2: Violations of academic integrity → measure: proctoring/anti-plagiarism/committee.

Records/evidence:
1. FOS, rubrics, test banks, monitoring reports
2. Registers, minutes, academic performance reports, CAPA decisions

Related QMS documents: QMS-20-08; QMS-20-09; QMS-40-06; QMS-50-01…04
Forms/templates: reports, rubrics, academic performance analysis reports
Monitoring: every module/semester; Review: annually.

Appendix. Process Card O5 (OSCE/OSPE)
Process Code: O5
Title: Simulation-based training and assessment of practical skills (OSCE/OSPE)
Group: O (core)
Owner: Simulation Center

Co-implementers: relevant departments, the Dean's Office, clinical mentors (if necessary), OVMK

Process objective: To ensure the development and objective assessment of students' practical competencies at simulation stations using standardized checklists and a transparent procedure.

Scope: From OSCE/OSPE planning to the approval of results and quality analysis.

Inputs:

1. List of skills/competencies for the educational program
2. OSCE/OSPE stations, checklists, criteria, scenarios
3. Schedule, student lists, simulation center resources

Outputs:

1. OSCE/OSPE protocols, individual results
2. Report on station/examiner quality
3. Recommendations for improvement (CAPA) and action plan

Key stages:

1. OSCE/OSPE planning (stations, skills, resources, schedule).
2. Preparation of stations, materials, and standardized checklists.
3. Training of examiners/assistants, assessment calibration.
4. Conducting the OSCE/OSPE according to procedure (route, timing, monitoring).
5. Collection and verification of checklists/scores, preparation of reports.
6. Announcement of results, handling of appeals (if applicable).
7. Analysis of reliability/quality and implementation of improvements.

KPI:

1. KPI1: Percentage of students who passed the OSCE/OSPE as planned — target: ___%.
2. KPI2: Number of stations without critical procedural violations — target: ___/total.
3. KPI3: Examiner calibration results (discrepancy in scores) — target: ≤ ___%.

Risks:

1. R1: Uncalibrated assessment → action: examiner training + monitoring of discrepancies.
2. R2: Lack of resources/stations → action: planning, reserve days, flow distribution.

Records/evidence:

1. OSCE/OSPE plan, checklists, protocols, analysis reports
2. Examiner registry, station readiness reports, CAPA plans

Related QMS documents: QMS-30-03; QMS-20-14; QMS-40-06; QMS-60-03/04

Forms/templates: station checklist, OSCE protocol, analysis report

Monitoring: for each OSCE/semester; Review: annually.

Below are **ready-made templates** for insertion into documents:

1. **Internal Audit Checklist (Q2)**
2. **Approval sheet** (for internal audit regulations)
3. **List of Developers and Responsible Parties** (for internal audit regulations)
4. **Approval sheet** (for CAPA procedure Q3)
5. **List of Developers and Responsible Persons** (for CAPA Procedure Q3)

INTERNAL AUDIT CHECKLIST

Audit Object (Process/Department): _____

Process code: _____ (e.g., O2/O3/O5/Q1/Q2/Q3)
Audit period: _____
Audit date: **"_" _____ 2**0
Auditor(s): _____
Department representative: _____

A. General Requirements for the QMS

No.	Verification criterion	Evidence (what to look for)	Compliance (Yes/No/Partially)	Comment/ Non-compliance
A1	Process defined (purpose, scope, owner)	Process card/procedure, assignment of responsible parties		
A2	Documents are up-to-date and version-controlled	QMS register, title/version/date, access to the current version		
A3	Process records/evidence are maintained	Logs, records, protocols, reports, eBilim exports		
A4	Process KPIs are defined and monitored	KPI report, analytics, improvement plans		
A5	Process risks are identified and mitigation measures are in place	Risk register, response measures, responsible parties		
A6	Staff are informed of the requirements	Briefings, memos, meeting minutes		

B. Process implementation (step-by-step)

No.	Verification criterion	Evidence	Yes/No/Partially	Comment/Non-compliance
B1	Process planning is carried out in accordance with regulations	Plan/schedule, timetable/calendar, orders		
B2	Execution corresponds to the process description	Examples of completed operations, sample documents		
B3	Control points are met	Control reports, deadline monitoring		
B4	Data is recorded in the IS (if applicable)	eBilim/EDO records, logs, exports		
B5	Deviations are identified and recorded	Nonconformity/NS register, memos		

C. Nonconformities and Corrective Actions (CAPA)

No.	Criterion	Evidence	Yes/No/Partially	Comment
C1	Nonconformities are documented using the established form	NS Register, CAPA cards		
C2	Causes are analyzed (5 Whys/Ishikawa)	Completed CAPA cards		
C3	Actions are completed on time	CAPA status, supporting records		
C4	Effectiveness of actions is verified	"Effective/Not effective" mark, post-verification		

D. Specifics by area (select as appropriate)

D-EDUCATION (O2/O3): schedule, attendance/grade logs, reports, FOS, BRS, performance analysis.
D-OSCE/OSPE (O5): stations, checklists, examiner calibration, protocols, appeals, reliability analysis.
D-IT/eBilim: service availability, access rights, backup procedures, SLA, incident log.
Audit Summary:

1. Non-conformities (number): ___ critical ___ non-critical
2. Observations/opportunities for improvement: ___
3. Recommendations: _____
   Signatures: Auditor _____ / Department Representative _____

CAPA CARD (Corrective/Preventive Actions)
CAPA Code: CAPA-____-20__
Source: ☐ internal audit ☐ KPI monitoring ☐ student complaint ☐ OSCE/exam ☐ risk ☐ other: _____
Date of Registration: ..20__
Process/Department: _____
Process Code: _____ (O2/O3/O5/Q1/Q2/Q3…)
Classification: ☐ critical ☐ non-critical ☐ observation/improvement

A. Description of non-conformity

Field	Fill in
Description of nonconformity (what happened)	

Requirement/criterion violated (reference)	QMS document: ___ section ___ / standard ___
Evidence (facts, references to records)	eBilim/statement/protocol/report/screenshot/report No. ___
Scope (groups/period/quantity)	
Immediate actions (if necessary)	

B. Root Cause Analysis

Method	Fill in
Analysis method (select)	☐ 5 Whys ☐ Ishikawa ☐ Data Analysis ☐ Expert Assessment
Root Cause #1	
Root Cause #2 (if any)	
Systemic cause (if any)	

C. Action Plan (CAPA Plan)

No.	Action	Type	Responsible	Deadline	Resources	Performance indicator	Status
1		☐ CA ☐ PA					☐ Open ☐ In progress ☐ Completed
2		☐ CA ☐ PA					
3		☐ CA ☐ PA					

CA — Corrective Action (addresses the root cause). **PA** — Preventive Action (prevents recurrence).

D. Effectiveness Check (after completion)

Field	Filling
How to verify effectiveness (method)	☐ Follow-up audit ☐ KPI monitoring ☐ Record sampling ☐ Survey/questionnaire
Verification date	..20__
Result	☐ Effective ☐ Partially effective ☐ Ineffective
Comments and next steps	

E. CAPA Closure

Field	Fill in
Closure date	..20__
Supporting documents/records	No.___ / reference / folder
Closed by (OVMC)	Full Name, Signature, Date
Approved by process owner	Full name, signature, date

REGISTER OF NON-CONFORMITIES AND CAPA (maintained by OVMK / Quality Department)

No.	Date	Source	Process/Department	Process Code	Description of NS	Criticality	Process Owner	CAPA Code	D
1						☐closed ☐not closed			
2						☐full-time ☐part-time			
3						☐cr ☐non-cr			

Source (example): Q2 audit, Q1 monitoring, performance analysis, OSCE/OSPE, student complaint, risk register.

All nonconformities are recorded in the QMS register on the day of detection (or no later than 3 business days). For critical nonconformities, a CAPA plan is developed within 5 business days. CAPA closure is permitted only after verifying effectiveness and the availability of supporting records.

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.