

Evaluation of the Modular Education System
Academic Year 2024–2025

Education Quality assessment and assurance system, YSMU

Scope and Methodology

Main goal of research is to reveal gaps and problems during alignment process of subjects in a stage of implementation of modular system of PEP.

The evaluation was conducted through structured student surveys among first-, second-, and fourth-year cohorts. Participation rates ranged between 60% and 75%, ensuring a representative and reliable evidence base for quality assessment and institutional decision-making.

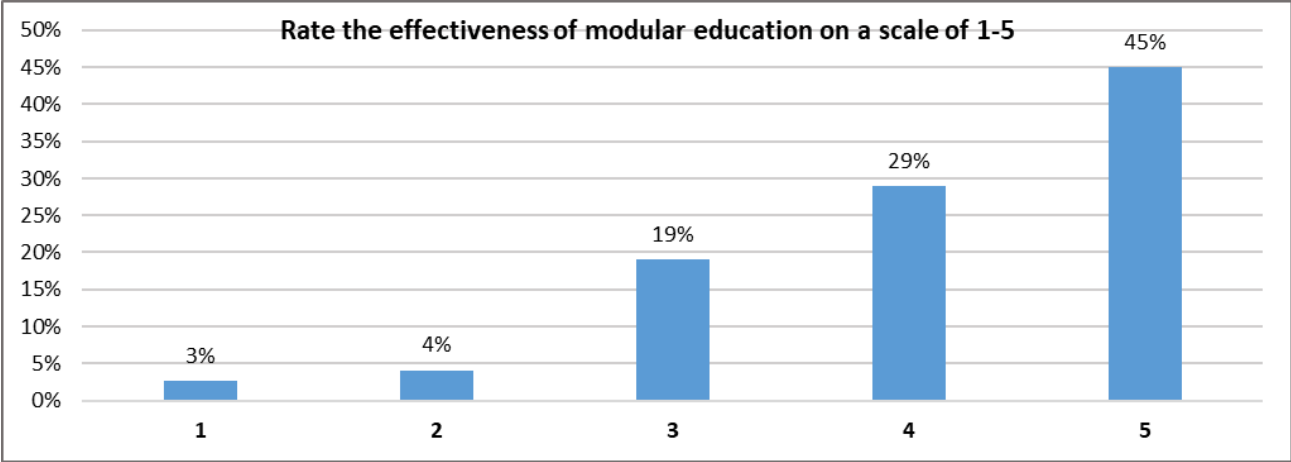
Key Findings

Effectiveness of the Modular Structure

Survey results indicate that, particularly in the first and second years, students generally perceive the modular education format as a conceptually sound and potentially effective approach. Respondents highlighted improved organization of content, clearer thematic structuring, and increased predictability of assessment periods.

However, the data also reveal that the educational effectiveness of the modular system is not consistently achieved in practice, primarily due to insufficient coordination and implementation-related deficiencies.

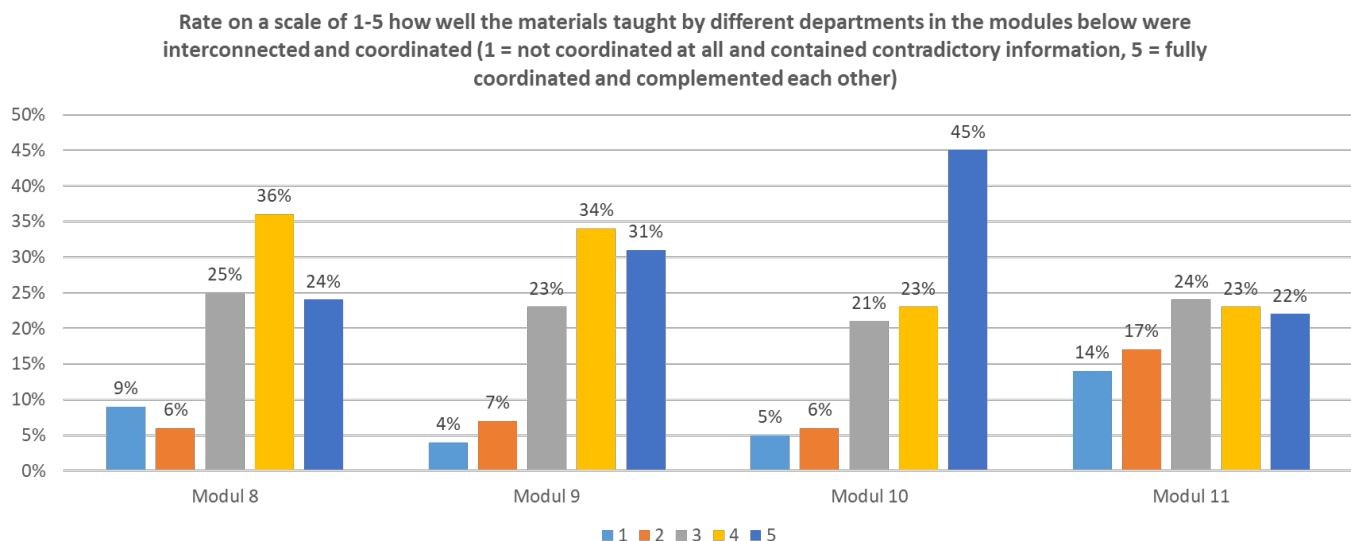
1st year, second semester



Curriculum Coherence and Alignment

A recurring issue across all evaluated years is the limited alignment and coordination between disciplines within individual modules. Students reported thematic overlaps, inconsistencies, and, in some cases, contradictory content delivered by different departments within the same module.

This indicates a structural gap in horizontal curriculum integration and insufficient interdisciplinary coordination mechanisms at the module design level.



Workload and Time Allocation

Students across all cohorts emphasized imbalances between content volume and allocated instructional time, particularly in modules containing multiple disciplines. Short teaching cycles for extensive subjects were reported to negatively affect deep learning, retention, and knowledge integration.

From a QA perspective, this suggests a need for systematic workload mapping and recalculation of contact hours in alignment with defined learning outcomes and ECTS principles.

Assessment and Evaluation Mechanisms

While a portion of students acknowledged that assessment results partially reflect their knowledge, concerns were raised regarding:

- ❑ overreliance on summative testing,
- ❑ limited use of formative and oral assessment methods,
- ❑ insufficient transparency and consistency of assessment criteria across departments.

These findings indicate that the current assessment framework does not fully support constructive alignment between learning outcomes, teaching activities, and assessment methods.

Clinical Training and Practical Skills (Fourth Year)

In the clinical phase of the program, particularly in the fourth year, students reported that the modular format does not sufficiently support the development of practical and clinical competencies.

Key issues include:

- ❑ limited number and effectiveness of practical sessions,
- ❑ inadequate integration of theory and practice,
- ❑ restricted patient-based learning opportunities.

This raises concerns regarding outcome-based clinical competence development, which is a core requirement of international medical education standards.

Student Feedback and Continuous Improvement Signals

Despite critical feedback, students consistently expressed support for the idea of modular education, emphasizing that their dissatisfaction stems from implementation gaps rather than rejection of the model itself.

The recurrence of identical issues across multiple cohorts and semesters suggests the presence of systemic challenges, rather than isolated departmental shortcomings.

Quality Assurance–Focused Conclusions

From a quality assurance perspective, the findings demonstrate that the modular education system at Yerevan State Medical University possesses significant potential but currently lacks the structural and procedural coherence required to ensure consistent educational quality.

Priority Areas for Quality Enhancement

To align the modular system with international accreditation and QA standards, the following actions are recommended:

1. Strengthen curriculum governance and interdisciplinary coordination at the module design level.
2. Recalculate instructional time and workload distribution based on learning outcomes and ECTS principles.
3. Revise assessment strategies to ensure transparency, fairness, and constructive alignment.

4. Modernize educational materials and harmonize teaching resources across departments.
5. Enhance clinical training models to ensure adequate practical exposure and competency-based learning outcomes.

Overall QA Conclusion

The modular education system can serve as an effective and quality-assured educational model at Yerevan State Medical University provided that it is supported by systematic curriculum alignment, evidence-based workload planning, assessment reform, and continuous quality improvement mechanisms. Without these targeted interventions, the system risks falling short of internationally recognized standards for medical education quality and graduate competence.

Annex 1

Example of questionnaire

Dear Student,

The purpose of this survey is to assess education implemented in a modular format and contribute to its improvement.

1. Please indicate your progress.

Satisfactory ☐ Good ☐ Excellent ☐

2. Rate the effectiveness of modular education on a scale of 1-5.

3. While studying the modules listed below, did you have a clear understanding of their:

A) Structure (the distribution of different subjects)

Modul	yes	no
1. Musculoskeletal System 1		
2. Musculoskeletal System 2		
3. Cell, Early Development, and Tissue		
4. Morphological bases of metabolism, reproduction		
5. Cardiovascular and immune systems		

B) Assessment Methodology

Modul	yes	no
1. Musculoskeletal System 1		
2. Musculoskeletal System 2		
3. Cell, Early Development, and Tissue		
4. Morphological bases of metabolism, reproduction		
5. Cardiovascular and immune systems		

C) Expected Outcomes (what you should know and be able to do after completing the module)

Modul	yes	no
1. Musculoskeletal System 1		
2. Musculoskeletal System 2		
3. Cell, Early Development, and Tissue		
4. Morphological bases of metabolism, reproduction		
5. Cardiovascular and immune systems		

4. Rate on a scale of 1-5 how well the materials taught by different departments in the modules below were interconnected and coordinated (1 = not coordinated at all and contained contradictory information, 5 = fully coordinated and complemented each other)

Modul	1-5
1. Musculoskeletal System 1	
2. Musculoskeletal System 2	
3. Cell, Early Development, and Tissue	
4. Morphological bases of metabolism, reproduction	
5. Cardiovascular and immune systems	

Please specify which subjects had discrepancies (provide examples)

5. For each of the modules listed below, which subject's share would you like to increase (mention no more than one subject per module), and which subject's share would you like to decrease (mention no more than one subject per module)?

Modul	Subject	Increase	Decrease
1. Musculoskeletal System 1	Human Anatomy		
	Radiology		
2. Musculoskeletal System 2	Human Anatomy		
	Clinical Anatomy		
3. Cell, Early Development, and Tissue	Cytology and General Histology		
	Medical Chemistry 2		
	Biophysics and Molecular Biology		
4. Morphological bases of metabolism, reproduction	Embryology and Molecular Biology		
	Human Anatomy		
	Radiology		
	Clinical Anatomy		
	Histology		

5. Cardiovascular and immune systems	Human Anatomy		
	Radiology		
	Clinical Anatomy		

6. Rate the

lectures and practical sessions of the module subjects on a scale of 1-5 (1 = very poor, 5 = very good)

Modul	Subject	Lecture	Practical
1. Musculoskeletal System 1	Human Anatomy		
	Radiology		
2. Musculoskeletal System 2	Human Anatomy		
	Clinical Anatomy		
3. Cell, Early Development, and Tissue	Cytology and General Histology		
	Medical Chemistry 2		
	Biophysics and Molecular Biology		
	Embryology and Molecular Biology		
4. Morphological bases of metabolism, reproduction	Human Anatomy		
	Radiology		
	Clinical Anatomy		
	Histology		
5. Cardiovascular and immune systems	Human Anatomy		
	Radiology		
	Clinical Anatomy		

7. Rate your

residual knowledge after studying the modules below on a scale of 1-5

Modul	1-5
1. Musculoskeletal System 1	
2. Musculoskeletal System 2	
3. Cell, Early Development, and Tissue	
4. Morphological bases of metabolism, reproduction	
5. Cardiovascular and immune systems	

8. The taught material was sufficiently accessible for studying in the first year.

Modul	Subject	yes	no
1. Musculoskeletal System 1	Human Anatomy		
	Radiology		
2. Musculoskeletal System 2	Human Anatomy		
	Clinical Anatomy		
3. Cell, Early Development, and Tissue	Cytology and General Histology		
	Medical Chemistry 2		
	Biophysics and Molecular Biology		
	Embryology and Molecular Biology		

4. Morphological bases of metabolism, reproduction	Human Anatomy		
	Radiology		
	Clinical Anatomy		
	Histology		
5. Cardiovascular and immune systems	Human Anatomy		
	Radiology		
	Clinical Anatomy		

9. In your

opinion, the grade you received during the assessment reflects your actual knowledge.

Modul	yes	no
1. Musculoskeletal System 1		
2. Musculoskeletal System 2		
3. Cell, Early Development, and Tissue		
4. Morphological bases of metabolism, reproduction		
5. Cardiovascular and immune systems		

10. How would you like to change the weight of the current assessment component (currently 20%) in the formation of the final grade?

Add ☐ Reduce ☐ Leave unchanged ☐

11. What would you change and how to make modular education more effective?

Musculoskeletal System 1_Human Anatomy

Musculoskeletal System 1_ Radiology

Musculoskeletal System 2_ Human Anatomy

Musculoskeletal System 2_ Clinical Anatomy

Cell, Early Development, and Tissue_ Cytology and General Histology

Cell, Early Development, and Tissue_ Medical Chemistry 2

Cell, Early Development, and Tissue_ Biophysics and Molecular Biology

Cell, Early Development, and Tissue_ Embryology and Molecular Biology

Morphological Bases of Metabolism, Reproduction_ Human Anatomy

Morphological Bases of Metabolism, Reproduction_ Radiology

Morphological Bases of Metabolism, Reproduction_ Clinical Anatomy

Morphological Bases of Metabolism, Reproduction_ Histology

Cardiovascular and Immune Systems_ Human Anatomy

Cardiovascular and Immune Systems_ Radiology

Cardiovascular and Immune Systems_ Clinical Anatomy