Evidence of Learning Outcomes Achievement: The foundation of meaningful self-evaluation

The Armenian Experience of Building an Enhancement-Oriented Quality Assurance System

Ruben Topchyan
The Director of ANQA

INSTITUTIONAL TRANSFORMATION

Three levels of transformation

Self-evaluation reports stated the intended learning outcomes. They lacked evidence of what students had actually achieved.

NATIONAL SYSTEM

External QA

ANQA called for **clear assessment tasks** aligned with outcomes, curriculum maps showing progression and where **assessment for learning takes place**, and analysis of **evidence that students achieved the outcomes.**

INSTITUTION

Leadership commitment

University leaders **took ownership** of this priority and committed to implementing the approach in their programmes.

EDUCATION

Programme practice

Programme teams put the approach into practice in curriculum maps, assessment tasks and their analysis of student work.

The three levels show where change happens. Universities use their autonomy to decide how to improve beyond the statutory minimum.

LEVEL 1 / NATIONAL SYSTEM

What ANQA asked universities to show

Self-evaluation reports stated the intended learning outcomes. They lacked evidence of what students had actually achieved.

Assessment tasks	Define clear tasks that let students demonstrate the intended learning outcomes.
Curriculum maps	Show progression and where assessment for learning takes place.
Evidence of achievement	Analyse assessment evidence to determine which outcomes students achieved.

LEVEL 2 / INSTITUTION

University leaders took ownership

University leaders committed to implementing the approach in their programmes.

University autonomy	Each university decided how to put the approach into practice and improve beyond the statutory minimum.

LEVEL 3 / EDUCATION

Programme teams put the approach into practice

Curriculum mapping	Teams mapped where outcomes were developed and where assessment supported learning.
Assessment design	They aligned clearly defined tasks with the outcomes students were expected to demonstrate.
Analysis of student work	They used evidence from student work to analyse which outcomes students achieved.

Our university colleagues will now show how they put these changes into practice.

NATIONAL UNIVERSITY OF ARCHITECTURE
AND CONSTRUCTION OF ARMENIA

Steps to Improve the Quality of Education

Study Program: Civil Engineering

Yerevan, Armenia



Our approach in three steps

From clear goals for graduates, to a realistic plan, to every single course



01

Align the outcomes

Rebuild the link between program goals and course goals so that every course clearly serves the program.



02

Plan the update

Schedule the program update as a network of tasks, with reporting points and a responsible person for each stage.



03

Map each course

For every course, connect its outcomes to the program goals, the teaching activities and the way they are assessed.

KEY TERMS

PLO — **Program Learning Outcome**
what a graduate can do at the end of the program

CLO — **Course Learning Outcome**
what a student can do at the end of one course

IRMA — **Introduced · Reinforced · Mastered · Assessed**
how far a course takes an outcome

Current model: courses build up to outcomes

Links run bottom-up – courses come first, and program outcomes are assembled from them

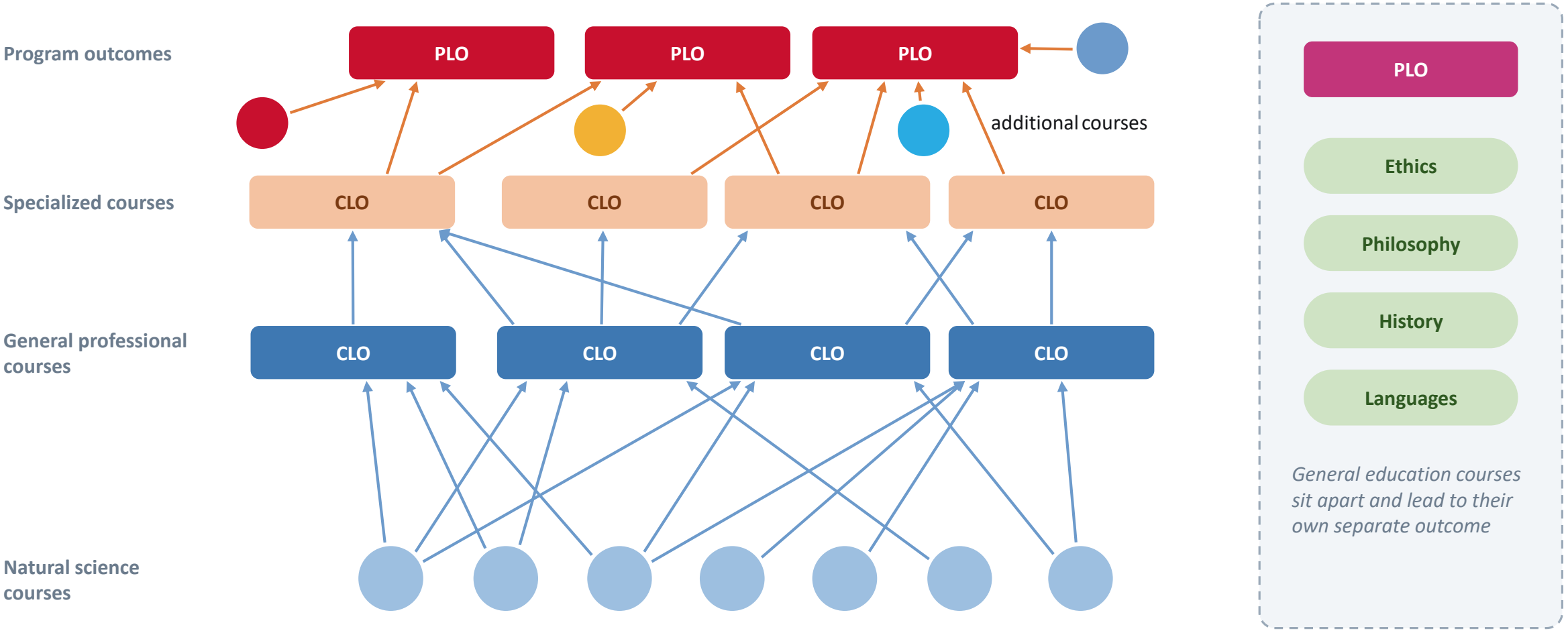


Fig. 1 Current PLO–CLO interrelation scheme

Proposed model: outcomes drive the courses

Program outcomes are defined first and cascade down to every course

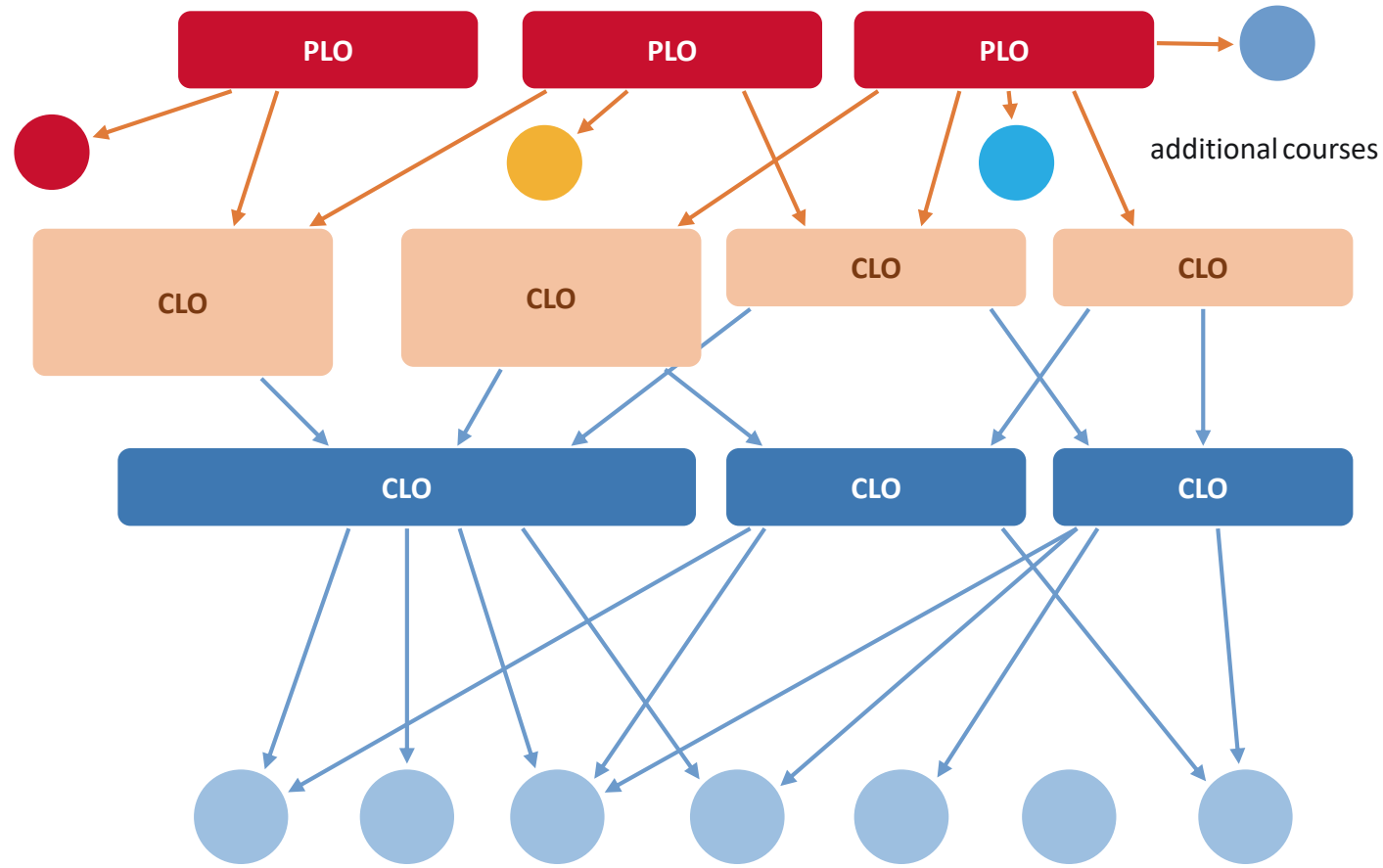


Fig. 2 Suggested PLO–CLO interrelation scheme

WHAT CHANGES

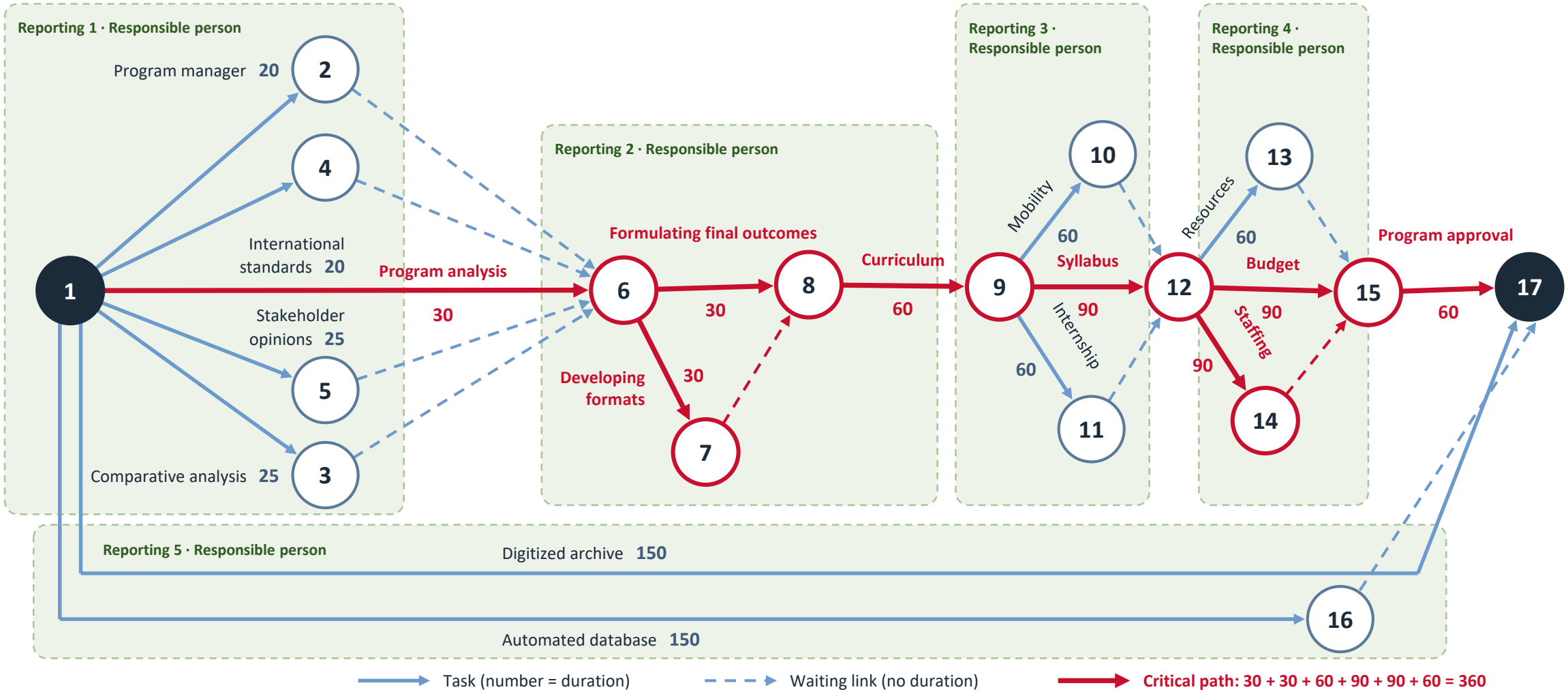
Bottom-up
→ **Top-down**

Goals come first
Each program outcome sets what the courses below it must deliver.

Broader course outcomes
Related courses are grouped into larger, clearer outcome blocks.

Roadmap for updating the program

Each arrow is a task; numbers show its duration. Red marks the critical path – the chain that sets the total time



Course example: what students will be able to do

Each outcome uses one measurable action verb, so it can be assessed at the right level

1	**CLO1**	**Knowledge & understanding** Remember · Understand	Explain the main tasks of construction planning, how the key project documents are prepared, and how results are evaluated.
2	**CLO2**	**Application** Apply	Prepare tables of work quantities, largely taken from the building's digital model; calculate the labor effort and duration of the works; define the workforce and equipment needed.
3	**CLO3**	**Analysis & judgment** Analyze · Evaluate	Evaluate construction schedules using technical and economic indicators, and optimize them where needed.
4	**CLO4**	**Communication & documentation** Create	Develop and present a work schedule and a construction site plan using the templates of Armenia's building codes.
5	**CLO5**	**Autonomy** Evaluate · Create	Use building codes and standards independently, and make sure safety and environmental requirements are met.

Blue tag = level of thinking (Bloom's taxonomy)

Construction Management
Matrix of cours : course outcomes, program outcomes, assessment

Every outcome has at least one assessment tool, kept evidence and a clear pass threshold

Course outcome	PLO	IRMA	Learning activity	Assessment	Weight	Minimum threshold	Critical criterion
CLO1 Explain planning basics	**A3, A4**	**I**	Lectures	Exam; thesis defense	**10%**	Knows at least 70% of the required documents	Contents of the construction organization plan and work execution plan
CLO2 Calculate quantities, effort and resources	**B1**	**R**	Assignment 1, integrated project, final thesis	Rubrics for each task	**30%**	No major errors in at least 80% of work items	Completes the calculation part of the schedule
CLO3 Evaluate and optimize schedules	**B4**	**A**	Assignment 1, integrated project, final thesis	Rubrics for each task	**10%**	Evaluates the schedule (optimization not yet required)	Calculates and assesses workforce balance and work-overlap ratios
CLO4 Produce the work schedule and site plan	**B2, B3, E1**	**M**	Assignments 1–2, integrated project, final thesis	Rubrics for each task	**50%**	Only minor errors in quantities or work sequence	Builds the schedule and site-plan models
CLO5 Apply codes, safety and environmental rules	**B6, D3**	**A**	Assignments 1–2, integrated project, final thesis	Rubrics: integrated project, thesis	**10%**	Knows the key standards and how to use them	Site plan meets safety and environmental requirements

IRMA: I – Introduced R – Reinforced M – Mastered A – Assessed
Evidence kept: individual digital test answers (CLO1); digital versions of the integrated project and final thesis (CLO2–CLO5)

Thank you

Questions and discussion

National University of Architecture and Construction of Armenia
Study Program: Civil Engineering



External Quality Assurance as a Catalyst for Curriculum Renewal and Competency-Based Professional Education:



Experience of Yerevan State Medical University

YSMU

Faculty of Pharmacy

Director of the Bachelor and Master of Pharmacy Academic Programs

Shushanik Afrikyan

YSMU's Accreditation Trajectory

- Institutional accreditation in 2014
- Institutional reaccreditation in 2020
- Institutional reaccreditation in 2026 (final stage)

- MD General Medicine Program accreditation (WFME, 7 years) in 2024
- Pharmacy and Stomatology Programs Accreditation (final stage) in 2026
- Public Health Programs Accreditation (in progress) in 2026

Educational Programs of Faculty of Pharmacy

External QA

- Stimulates Curriculum Renewal
- Strengthens Competency-Based Education
- Improves Assessment Systems



The curriculum reforms are based on:

- Employers
- Graduates
- Students
- Lecturers

Stakeholder Feedback



- 8 Countries
- 10 Universities
- Regional (2)
- European (8)

Benchmarking Results



- ANQF*
- SQFP**
- EQF***
- EPCF****

PLO Review and Alignment



*SQFP** - *Sectoral Qualifications Framework in Pharmacy.*

*ANQF**- *Armenian National Qualifications Framework.*

*EQF***- *European Qualifications Framework.*

*EPCF**** - *European Pharmacy Competence Framework.*

Curriculum Renewal

The main curriculum reforms included the following:

- Introduction of interdisciplinary modules
- Rebalancing of the general and professional components
- Strengthening research competence
- Strengthening patient-oriented pharmacy education
- Expansion of elective provision



Strengthening research competence



Introduction of "Fundamentals of Research" and "Biostatistics" (previously elective courses) as compulsory components of the curriculum.

The offering of research-oriented electives (such as "Drug Design Skills"), provides additional opportunities for students to deepen their research interests.

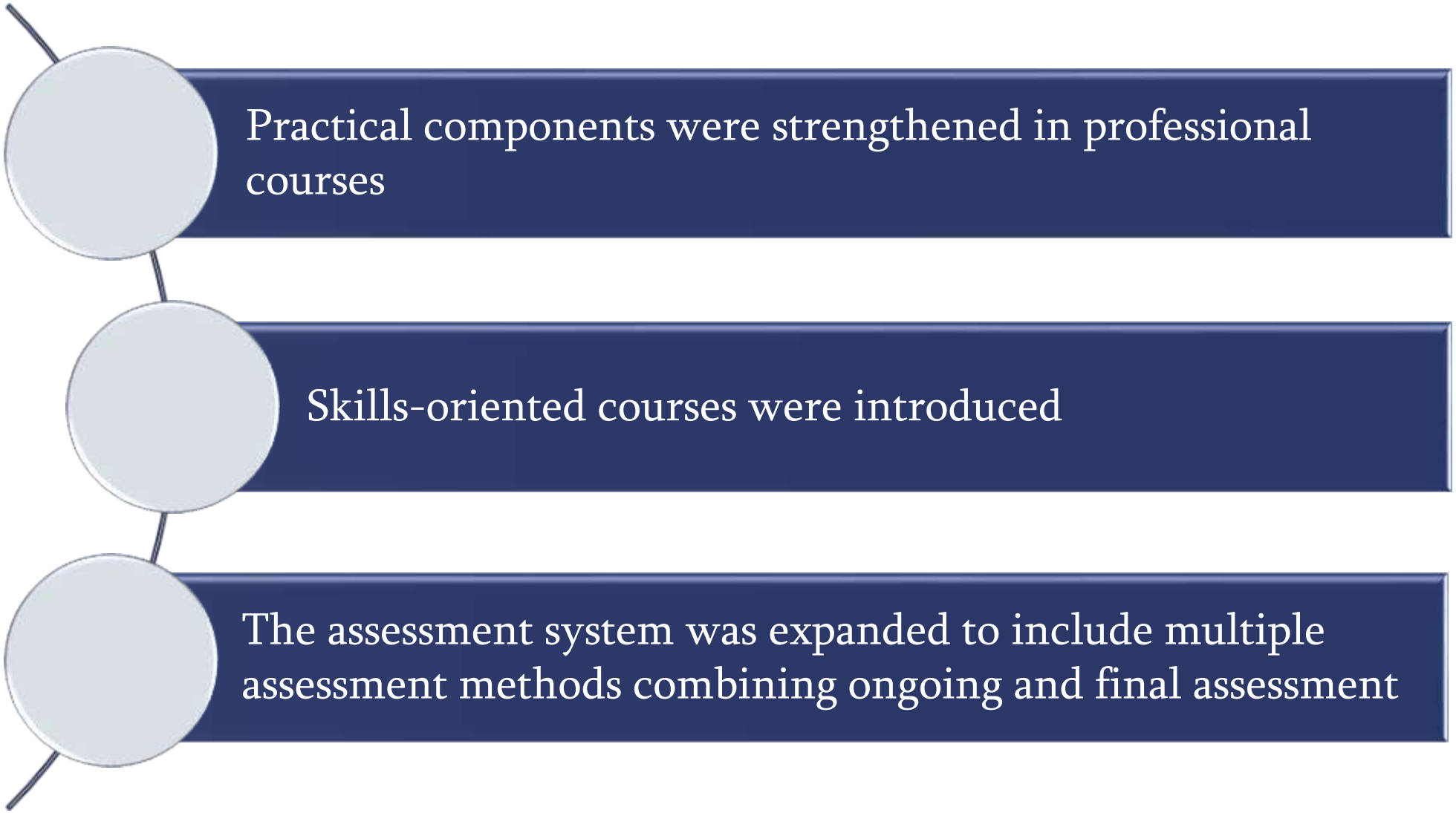
Incorporating research assignments in most courses, especially in the professional ones.

Final Degree Thesis (MPharm EP) as compulsory component of final attestation.

- ✓ Literature searches,
- ✓ Data interpretation,
- ✓ Applied research assignments,
- ✓ Laboratory reports,
- ✓ Small-scale projects.

Strengthening Competency-Based Education

A Constructive Alignment Map was developed to assess the achievement of the PLOs.



Assessment methods become progressively more performance-oriented and include:

Assessment System Improvement

- Written and Oral Analytical Tasks
- Calculation and Situational Problems
- Laboratory Assessment
- DOPS, (OSCE, vOSCE)
- Laboratory Reports
- Practical Examination
- Practice Diaries







In the early stages, ongoing and final assessments are generally weighted **30/70**. In later professional courses, the weighting of ongoing practical assessment increases to **40/60** or **50/50**, reflecting the greater importance of demonstrated practical competence.

- ❑ Establishment of assessment criteria and performance indicators.
- ❑ Development of evaluation checklists.
- ❑ Alignment of assessment methods with learning outcomes.

Examples of criteria for evaluating laboratory teamwork

- ✓ Effective distribution of tasks.
- ✓ Effective time management.
- ✓ Accuracy of obtained data.
- ✓ Appropriate communication within the team and with other teams.

Improving the teaching, learning and assessment environment

- Modernising and renovating laboratories, classrooms, and specialised educational spaces.
- Upgrading and modernising laboratory and educational equipment.
- Using modern digital technologies.



The training pharmacy



Computer classroom

Quality control laboratories









THANK YOU FOR

YOUR ATTENTION

PROGRAMME SELF-EVALUATION & DESIGN REVIEW

External Quality Assurance and Programme Improvement



Master of Public Health in Healthcare Management and Planning

Yerevan State Medical University
Prof. Marine Hovhannisyan

Made with GAMMA

PROGRAMME STRUCTURE

The programme at a glance

Full-time · 18 months · 3 semesters · 90 ECTS

Credit distribution

COURSEWORK

75 ECTS

ELECTIVE COURSES

3 ECTS

FIELD PRACTICUM

2 ECTS

INTEGRATING EXPERIENCE

10 ECTS

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QUALITY ASSURANCE INITIATION

01

Programme self-evaluation

The university examined the MPH programme and identified priorities for improvement.

02

Workshops with ANQA

Workshops focused on appropriate approaches to outcome-based program design, the formulation of learning outcomes and the assessment of their achievement.

03

University-led programme revision

We used these concepts to inform program revision.

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EDUCATIONAL PARADIGM

What should graduates be able to do?

PREVIOUS EMPHASIS

Knowledge-based learning

Greater emphasis on acquiring knowledge and covering course content.

→

OUTCOME-BASED APPROACH

Outcome-based programme design

We adopted a more outcome-based approach to programme design, with greater emphasis on developing and assessing professional competencies.

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CONSTRUCTIVE ALIGNMENT

Constructive alignment in programme design

01

STAGE 01

Progressive development

Each PLO is introduced, developed and mastered across the curriculum.

02

STAGE 02

Aligned learning and assessment

Courses, learning activities and assessment tasks contribute to the same outcomes.

03

STAGE 03

Evidence of achievement

Assessed student work provides evidence of PLO achievement.

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ASSESSMENT REFORM

Assessment aligned with learning outcomes



Revised assessments and assignments

Revised assessments and assignments to match program learning outcomes.



Added analytical components

Added analytical components alongside existing MCQs in selected courses.



Introduced the Field Practicum

Introduced the Field Practicum to strengthen practical skills and workplace application.



Applied learning evaluation

Used practical reports and host-supervisor evaluations to assess applied learning.

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CURRICULUM MAPPING EXTRACT

Constructive alignment in practice

PLO2: Design, implement, and evaluate public health programmes and health service interventions based on population needs, evidence, and public health priorities.

I = Introduced · D = Developed · M = Mastered

Course	Stage	Learning activities	Assessment task	Required demonstration
Problem Solving Paradigm in Public Health	**I**	Case discussions and problem-solving workshops	Group written analysis and oral presentation	Define a problem and justify feasible recommendations.
Healthcare Planning	**D**	Needs assessment and guided planning exercises	Individual programme-plan presentation with questions	Link population needs to objectives, activities, resources and indicators.
Health Program Planning, Implementation and Evaluation	**M**	Planning workshops and programme-design activities	Individual programme-plan presentation and written test	Integrate needs assessment, intervention design, implementation and evaluation planning.

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Program improvement process

Self-evaluation of MPH program

Initial assessment

Workshops with ANQA

External dialogue

Competency-based learning

Focus on applied capability

Program outcomes

Refined 8 PLOs

Constructive alignment

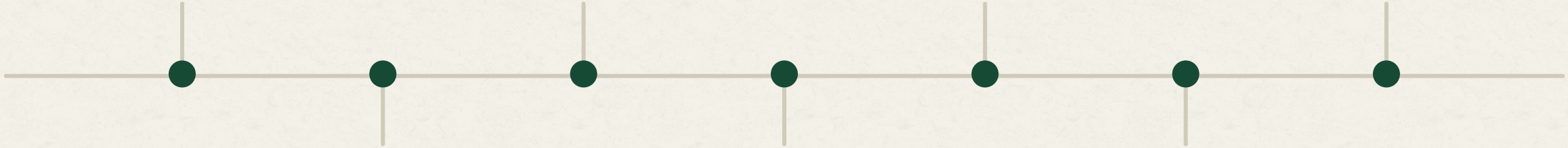
Curriculum progression map

Assessment evidence

Practical & analytical tasks

Changed practice

Enhanced programme quality



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CONCLUSION

External quality assurance and program effectiveness

KEY TAKEAWAY 01

Professional dialogue with ANQA contributed to concrete changes in program design and assessment.

KEY TAKEAWAY 02

These changes strengthen program coherence and support greater effectiveness in achieving the intended learning outcomes.

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THANK YOU FOR YOUR ATTENTION!

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From a Content-Oriented to an Outcome-Based Approach:

The Experience of the Arabic Studies Department YSU

Suzanna Gyozalyan, *Arabic Studies Department, YSU*

Background and the Need for Change

- **A predominantly content-oriented approach**, with courses structured around topics and subject matter
- **A gap between intended learning outcomes and actual teaching and assessment practices**
- **The need for better alignment** between programme objectives, individual courses, and the competencies expected of graduates

Are we primarily describing what we teach, or defining what students should know and be able to do?

Recognizing the Need for Change

Starting point

- Programme self-evaluation as part of the accreditation process
- Workshops and discussions with the Quality Assurance Centre

What this process involved

- Examining the link between learning outcomes, teaching practices and assessment
- Developing a broader understanding of what the transition to OBE entails

The First Step: A Comprehensive Programme Review

- Detailed mapping and examination of the existing programme courses
- Restructuring programme-level learning outcomes around five disciplinary domains
- Establishing a clear correspondence between knowledge outcomes and practical professional competencies
- Redefining transferable competencies applicable across the programme

From the Old Structure to the New Framework

- **OLD STRUCTURE - 20 Learning outcomes**
- **A.** 8 Knowledge outcomes
- **B.** 7 Professional skills
- **C.** 5 Transferable skills

- **NEW STRUCTURE - 14 Learning outcomes**
- **A.** 5 Knowledge outcomes
- **B.** 5 Professional competencies
- **C.** 4 Transversal competencies

Linking Knowledge to Practical Competencies

Knowledge outcome	Corresponding practical outcome
A1. Regional history and geopolitical developments	B1. Comparing and analysing historical and contemporary developments
A2. Arabic language and stylistic systems	B2. Applying linguistic resources, translating and analysing texts
A3. Linguistic theories and regional language situations	B3. Applying linguistic methodologies in research
A4. Arabic literature and cultural developments	B4. Comparing and interpreting literary and cultural sources
A5. Islamic values and religious traditions	B5. Analysing their influence on society and identity

Transferable Skills

Developed across all five disciplinary domains

- **Communication and academic discourse** *(oral presentations, debates, academic writing, group discussions)*
- **Critical and analytical thinking and academic integrity** *(source-based research, critical analysis of texts and sources, argumentation essays, case studies, comparing Arabic media sources and evaluating different perspectives on the same issue)*
- **Teamwork and ethical responsibility** *(group projects, collaborative problem-solving, peer assessment, reflective assignments)*
- **Digital literacy and information technologies** *(digital research tasks, evaluating online sources, multimedia presentations, responsible use of AI toolss, working with Arabic digital corpora)*

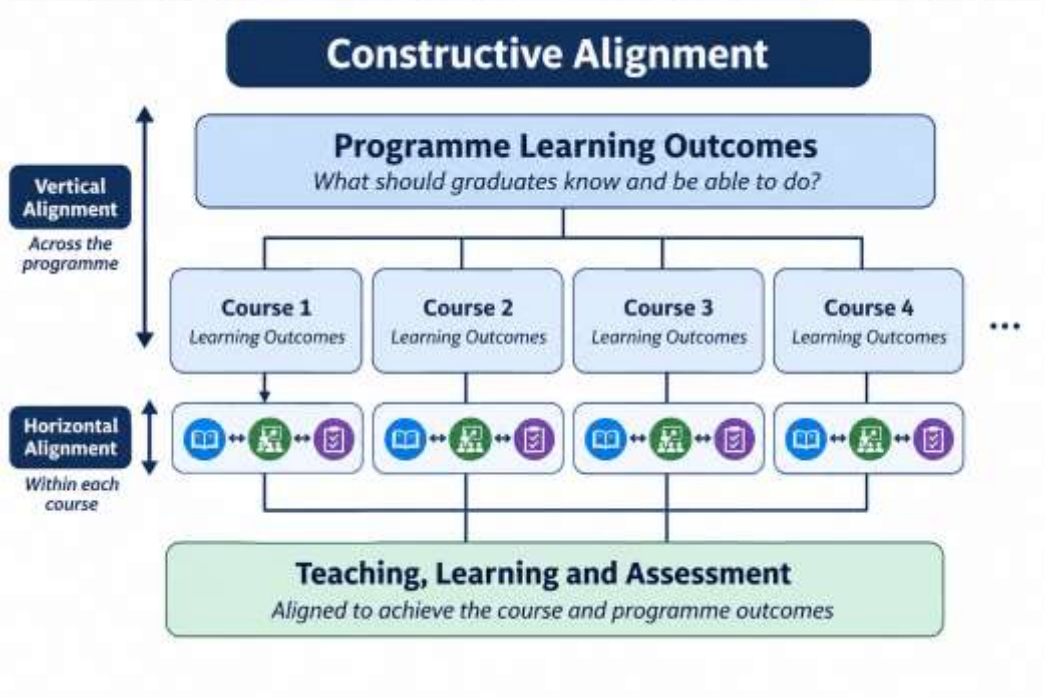


Involving the Academic Staff: Building a Shared Understanding

Reviewing each course: *Revisiting course learning outcomes, teaching methods and assessment in light of these three dimensions of alignment*

- - **Vertical alignment (programme-to-course):** Ensuring that course learning outcomes contribute to the achievement of programme-level learning outcomes
- - **Horizontal alignment (within each course):** Ensuring that course learning outcomes, teaching and learning activities, and assessment methods support one another
- - **Inter-course alignment (across the programme):** Ensuring that different courses complement one another, build on previously acquired knowledge and skills, and avoid unnecessary overlap or gaps

Constructive Alignment in Practice



What We Gained from the Process

- A shared understanding of outcome-based education among academic staff
- A clearer programme structure and stronger alignment
- More informed decisions about staff development
- Practical tools for programme monitoring, evaluation and further development

Challenges and the Way Forward

Challenges encountered

- **Different levels of readiness and willingness** among academic staff to embrace the new approach
- **Limited time and resources** to sustain and further develop the changes introduced
- **The need for continuous discussion, methodological guidance and practical support**

What comes next

- **Ongoing monitoring and regular review** of programme and course learning outcomes, their alignment and student achievement.
- **Continued professional development and targeted training** for academic staff
- **Using programme evaluation results to identify priorities and plan further improvements**

Questions Emerging from the Transition to Outcome-Based Education

- **The practical question:** How can we implement more varied and meaningful assessment when academic staff have limited time and resources?
- **The pedagogical question:** To what extent can we assess students' achievement without reducing learning to what is easily measurable?
- **The philosophical question:** How do we ensure that the pursuit of measurable outcomes strengthens universities as centres of deep inquiry, rather than narrowing the broader intellectual purpose of higher education and turning universities into service providers delivering pre-packaged, measurable skills?

THANK YOU