



Arab Academy for Science, Technology & Maritime Transport

Intended Learning Outcomes (ILO's) Procedure

EDQMS 4







صفحة مراقبة الإصدار / الاعتماد

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اعتماد

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التغيير/ التعديل

ملخص التعديلات	التاريخ

**ملحوظة:

جميع الوثائق السارية (الصالحة للاستخدام) تكون مختومة (مستند مراقب) على الصفحة الأولى.
يتم إعدام كافة الوثائق الملغاة (الإصدارات السابقة) من كافة مواقع الاستخدام لتجنب التعامل بها بطريق الخطأ.
لا يتم التعديل على هذه الوثيقة إلا من خلال إتباع الخطوات المنصوص عليها في وثيقة "مراقبة إصدارات لوائح ضمان الجودة 2 QAQMS 1/1



Purpose

- 1.1 To ensure that College / Institute are developing all necessary intended learning outcomes in the programmes and courses.
- 1.2 To simplify generating the intended learning outcomes (ILO's) for courses and programmes using the attached forms and guided by the flowchart.

1. Scope

- 2.1 This procedure applies to all programmes and courses at the undergraduate level and graduate.

2. Definition

- 3.1 The Intended Learning outcomes ILOs) are the achievements obtained by the students either on program level or on course level. These achievements include Knowledge and Understanding skills, Intellectual skills, Professional skills and General Skills.

3. Related Documents

- 4.1 EDQMS 1 Programmes of Study
- 4.2 EDQMS 3 Courses of Study.

4. Procedure

5.1 Academic Standards/Criteria

- 5.1.1 Develop a documented approved Academic Criteria according to National Accreditation Reference Standards (NARS) aligned with other international academic standards if applicable such as (ABET, RIBA...etc.) and "Complete EDQMS 4/1 Form".
- 5.1.2 According to the college mission, each department shall develop program goals that states what the program intends to accomplish and "Complete EDQMS 4/1 Form".

5.2 Goals

- 5.2.1 Goals are broad, general statements that describe broad learning outcomes and concepts (what you want students to learn) expressed in general terms (e.g., clear communication, problem-solving skills...etc.)
- 5.2.2 Goals should provide a framework for determining the more specific educational objectives of a program, and should be consistent with the mission of the college and the mission of the department.



5.2.3 A single goal may have many specific subordinate learning objectives.

5.3 Objectives

5.3.1 Develop Program Objectives. “Complete EDQMS 4/1 Form” Objectives are brief, clear statements that describe the desired learning outcomes of instruction (e.g., the specific skills, values, and attitudes students should exhibit that reflect the broader goals).

5.3.2 There are three types of learning objectives, which reflect different aspects of student learning: “Complete EDQMS 4/3 Form”

- **Cognitive objectives:** “What do you want your graduates to know?”
- **Affective objectives:** “What do you want your graduates to think or care about?”
- **Behavioral Objectives:** “What do you want your graduates to be able to do?”

5.3.3 Objectives can also reflect different levels of learning:

- **Mastery objectives:** are typically concerned with the minimum performance essentials – those learning tasks/skills that must be mastered before moving on to the next level of instruction.
- **Developmental objectives:** are concerned with more complex learning outcomes, those learning tasks on which students can be expected to demonstrate varying degrees of progress.
- **Instructional Objectives:** describe in detail the behaviors that students will be able to perform at the conclusion of a unit of instruction such as a class, and the conditions and criteria which determine the acceptable level of performance.

5.4 Intended Learning Outcomes (ILOs) for Programs/Courses

5.4.1 Learning Outcomes are statements that describe significant and essential learning that learners have achieved, identify what they will know and be able to do by the end of program/course.

5.4.2 Learning Outcomes means basing program “Complete EDQMS 4/1 Form” and curriculum design, content, delivery, and assessment on an analysis of integrated skills (Knowledge & Understanding; Intellectual; Professional & Practical; General & Transferable) needed by students.

5.4.3 Learning Outcomes are achieved results or consequences of what was learned; (e.g., evidence that course learning took place, learning outcomes are student-centered and describe what it is that the learner should learn. “Complete EDQMS 4/3 Form”



5.4.4 Effective set of learning outcomes statements inform and guide both the instructor and the students.

- For teaching staff: it informs:
 - the content of teaching
 - the teaching strategies used
 - learning activities/tasks set for students
 - appropriate assessment tasks
 - course evaluation.
- For students: the set of learning outcomes provides:
 - solid framework to guide their studies & assist them to prepare for their assessment
 - Point of articulation with graduate attributes (e.g., program/course generic level).

5.4.5 Learning Outcome statements may be broken down into three main components:

- An action word that identifies the performance to be demonstrated;
- A learning statement that specifies what learning will be demonstrated in the performance;
- A broad statement of the criterion or standard for acceptable performance.
- Example of learning outcomes

ACTION WORD (performance)	LEARNING STATEMENT (the learning)	CRITERION (the conditions of the performance demonstration)
Produces	documents	using word processing equipment
Analyzes	global and environmental factors	in terms of their effect

• **example of Goals, Objectives and Outcomes**

GOAL (Engineering)	OBJECTIVE	HOW THIS OBJECTIVE MIGHT BE REFORMULATED AS A LEARNING OUTCOME
This course introduces junior engineering students to the basic understanding of physics	<ul style="list-style-type: none"> ▪ The student is able to function in teams ▪ The student is able to measure different parameters 	Functioning as a member of a team, the student will design and conduct laboratory experiment, measure different parameters as well as analyzing the experiment outcomes.

5.5 Develop Course Group (مجموعة مقررات)

5.5.1 Each course group includes a list of courses relevant to the group and that are aligned with the program goals.



- 5.5.2 For each course intended learning outcomes (ILOs) are developed (see section 3.5).
- 5.5.3 The Courses learning outcomes provide a coherent set of experiences leading to the development of desired skills (Knowledge & Understanding; Intellectual; Professional & Practical; General & Transferable) that show increasing levels of sophistication and integration of skills as they progress through the program.
- 5.5.4 Sessions' learning outcomes are also developed according to course desired skills (Knowledge & Understanding; Intellectual; Professional & Practical; General & Transferable) that show the ability and knowledge of students through the course.

5.6 Evaluate the Learning Outcomes

5.6.1 Assess Course Learning Outcomes, "Complete EDQMS 4/3 Form"

- **Formative:** undertaken while student learning is taking place; the purpose or which is to improve teaching and learning; designed to capture students' progress.
- **Summative:** those obtained at the end of a course; the purpose of which is to document student learning for transcripts and for employers, donors, legislators, and other external audiences; designed to capture students' achievement at the end of their study on criteria and standards of judgment.
- **Direct:** evidence of student learning which is tangible, visible, self-explanatory; prompts students to represent or demonstrate their learning or produce work so that observers can assess how well students' tests or responses fit course-level expectations
Example: performances, projects, results of research, interactions within group, problem solving, or responses to questions.
- **Indirect:** evidence which provides signs that students are probably learning, but the evidence of exactly what they are learning is less clear and less convincing; capture students' perceptions of their learning and the educational environment that supports that learning, such as access to and the quality of services, programs, or educational offerings that support their learning
Example: student satisfaction, alumni, and employer surveys
- **Traditional:** the kinds of tests that have been around for decades; (e.g., quizzes, multiple choice, essay questions, comprehensive exams and oral examinations)
- **Performance:** ask students to demonstrate their skills rather than relate what they **have** learned through traditional tests; (e.g., field experiences, laboratory, assignments, and projects)
- **Published:** those published by an organization external to the institution and used by several institutions (papers, seminars, research...etc.)



- **Quantitative & Qualitative:** (surveys, structured interviews, focus groups...etc.)

5.6.2 Assess Program Learning Outcomes, “Complete EDQMS 4/2 ”

- **Embedded course assignments:** program assessments which are embedded into course assignments can be scored using a rubric
- **Capstone experiences:** theses, oral defenses, exhibitions, presentations...etc. can be scored using a rubric to provide evidence of the overall effectiveness of a program
- **Field experiences:** internships, practicum...etc. supervisor’s ratings of the student’s performance can be evidence of the overall success of a program
- **Employer feedback:** feedback from the employers of alumni can provide information on how well a program is achieving its learning goals
- **Student self-assessments:** indirect measures of student learning
- **Peer evaluations:** while having the potential for being inaccurate and biased, they can motivate students to fully participate

5.7 Analyze Results

5.7.1 According to procedures (EDQMS 1 & EDQMS 3) the evaluation of the program/course intended learning outcomes’ results are reported through Program Review Report Form (EDQMS 1/9) and Course Review Report Form (EDQMS 3/6)

5.8 Improve Program/Course

5.8.1 According to documented procedures (internal/external audits, management review, corrective/preventive action) periodical reviews are conducted, corrective/preventive actions are identified, and semiannual management reviews are held to authorize improvement programs and allocate resources.

5. Quality Records

Title	Form #	Kept by	Where	Time
Programme Matrix	EDQMS 4/1	Head of Dept.	local	3 Year
Programme ILOs Assessment	EDQMS 4/2	Course Coordinator	local	1 Year
Course ILOs Assessment	EDQMS 4/3	Course Coordinator	local	1 semester

6. Appendices

App. No	Title	Form #
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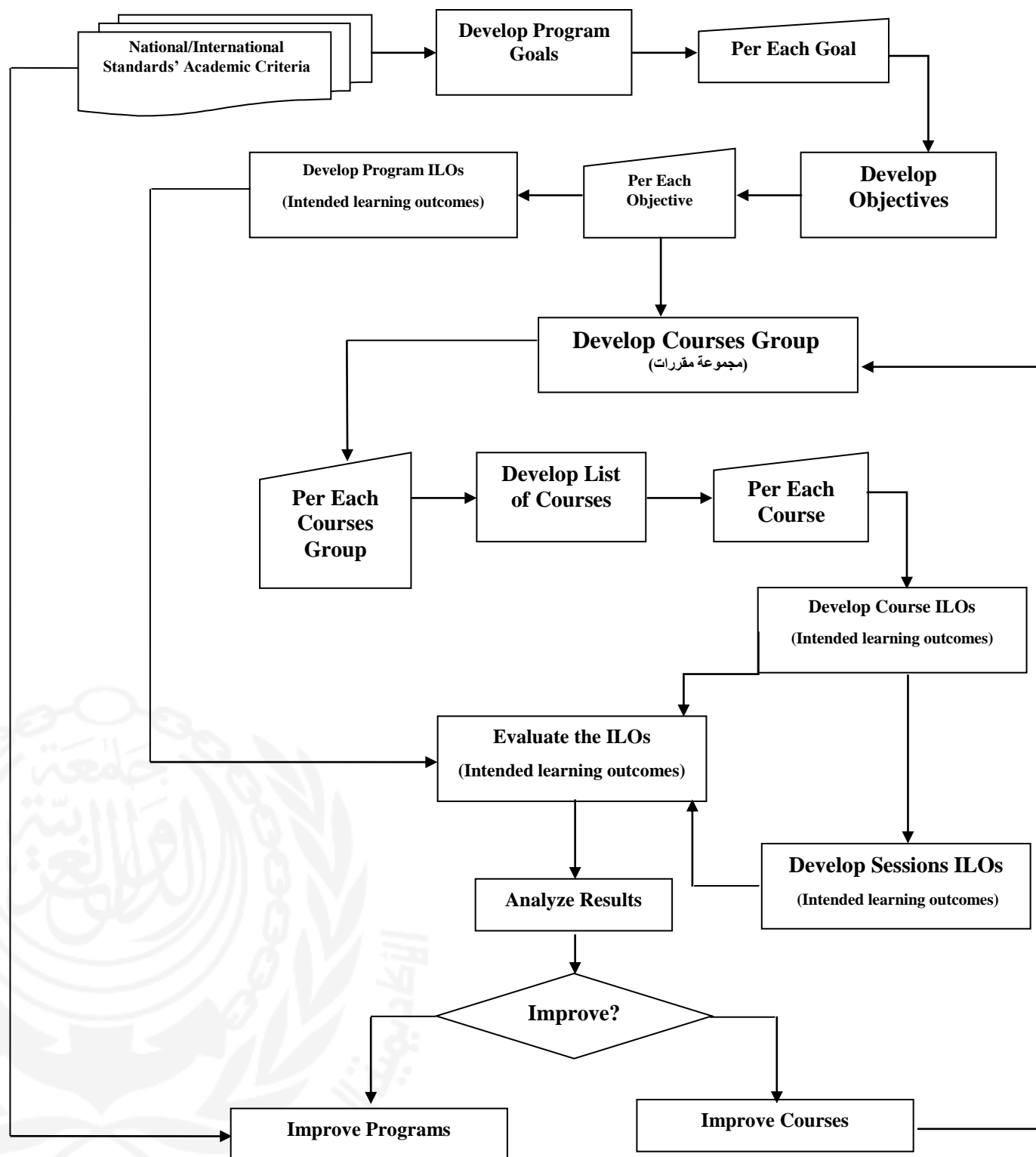


7.1	Programme Matrix	EDQMS 4/1
7.2	Programme ILOs Assessment	EDQMS 4/2
7.3	Course ILOs Assessment	EDQMS 4/3



Program Description Process

Aligned with Course Description Process





College/Institute: _____

كلية / معهد: _____

Program: _____

برنامج: _____

National/International Standards المعايير المرجعية القومية / الدولية	Program Goals اهداف البرنامج	Program Objectives	Program ILOs نواتج التعلم المستهدفة للبرامج	Assessment Methods طرق التقويم	Skills (المهارات)			
					Knowledge & Understanding المعرفية و الفهم	Intellectual ذهنية	Practical and Professional المهنية او الشخصية	General and Transferable مهارات عامة



College/Institute: _____

كلية / معهد : _____

Program: _____

برنامج : _____

Program Objectives اهداف البرنامج	Course Group (مجموعة مقررات)	List of Courses (قائمة المقررات)	Course ILOs (نواتج التعليم المستهدفة للمقرر)	Assessment Methods (طرق التقويم)	Skills (المهارات)			
					Knowledge & Understanding المعرفية و الفهم	Intellectual ذهنية	Practical and Professional المهنية او الشخصية	General and Transferable مهارات عامة



كلية / معهد :

برنامج :__

EDQMS 4/3