

Quality Management in Education



Agenda of This Talk

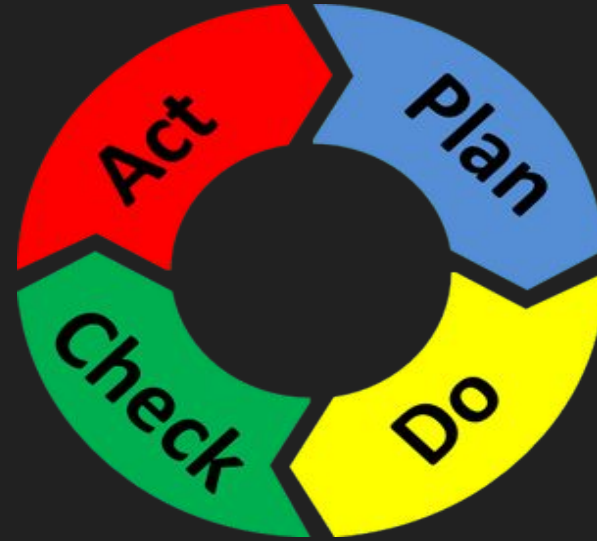
- Framework for **Quality Management of our Academic Programs** □ Already established
- Periodic measurement and evaluation of **Program Outcomes and Educational Objectives** □ To do

University Quality Assurance System

- The Quality Board of the university was established for the purpose of implementing the quality assurance system of the university and conducting institutional evaluation.
- In line with the targets set in the strategic plan of the university, the institutional performance indicators were identified in educational and research activities, and administrative services.
- Performance data are collected periodically to carry out measurement studies of the institutional performance indicators, and an [internal evaluation report](#) is prepared every year.

Quality Assurance Cycle

- Plan
- Do
- Check
- Act

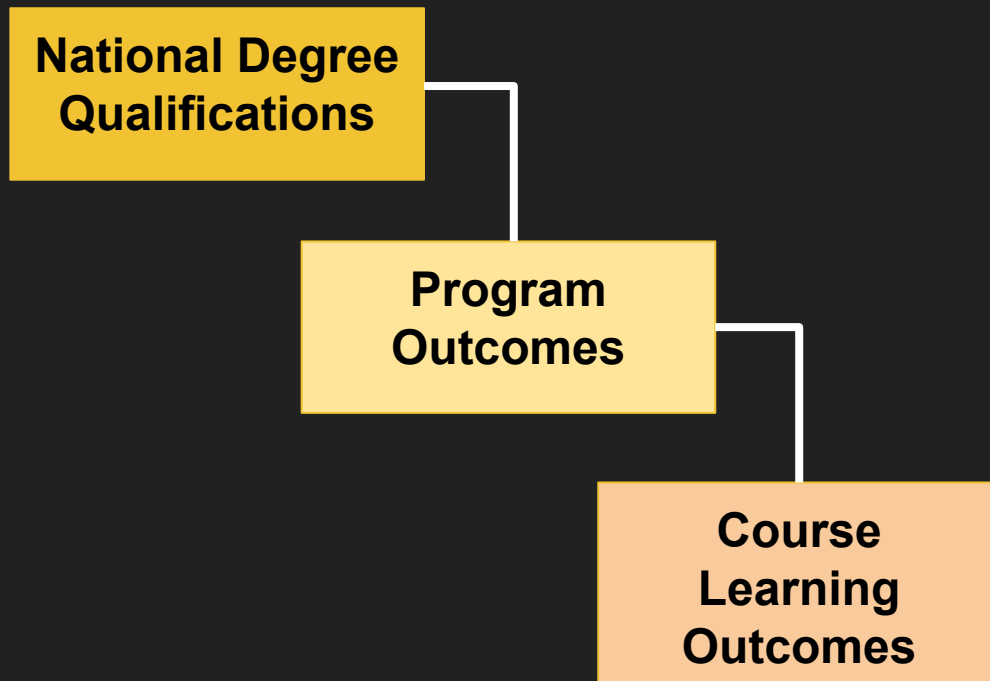


- Adopt a “continuous improvement” approach in education, research, and administration.

Planned in 2014

To define

- **program outcomes**
- **student workload and ECTS credits**
- **course learning outcomes and their measurements**
- **relationships**



National Degree Qualifications

Defined by YÖK for

- Engineering, Manufacturing and Processing
- Life Sciences, Natural Sciences, Mathematics and Statistics
- Humanities
- Architecture and Construction
- Business and Administration
- Teacher Education
- Art
- Law
- Computing
- Social and Behavioural Sciences

Program Outcomes

Program Outcomes are statements describing

- **knowledge**
- **skills**
- **behaviour**

students should be able to demonstrate upon successful completion of the program.

Program Outcomes

- Program outcomes must be
 - specific
 - narrow
 - observable
 - measurable

Program Outcomes must support the National Qualifications



Courses

For each course:

- **Course Coordinators** responsible for the syllabus
- **Student Workload Tables**
- **Syllabus** including **Assessment Methods**
- **Learning Outcomes**
- Supported **Program Outcomes**

are defined.

Measuring Learning Outcomes

Learning Outcomes are matched with Assessments

Courses

Learning Outcomes

Syllabus

Assessments

Workload Tables

UPDATE LEARNING OUTCOMES

Learning outcomes are the accumulated study. Learning outcomes should be measured, or value as a result of taking a course, more of the corresponding program's out

Course : CS 101 - Algorithms and Program

Add New Learning Outcome

To change the order of recorded outcome changes to cross arrow.)

Learning Outcomes

Design, implement and test computer programs using structured and object-oriented approaches

Demonstrate knowledge of contemporary information engineering

Use modern software systems and tools

Edit Learning Outcome

The assessment methods listed below are defined with the course syllabus. You are expected to select the assessment methods used to measure the learning outcome.

Outcome

Design, implement and test computer programs using structured and object-oriented approaches

Assessments

- Final
- Midterm
- Homework
- Quiz
- Lab exam

Update Learning Outcome

Status of Bilkent in 2019

- QME infrastructure is available at <https://blg.bilkent.edu.tr/>



Bilkent University Bologna Information System

[Bachelor's Degree \(First Cycle\)](#)

[Master's Degree \(Second Cycle\)](#)

[Doctorate's Degree \(Third Cycle\)](#)

[All Programs](#)

[All Courses](#)

Quality assurance activities at Bilkent are carried out in accordance with the requirements of the national quality assurance scheme. Bilkent University, a member of European University Association (EUA), has gone through the Institutional Evaluation Program (IEP) administered by EUA. The information can be found at:

<http://w3.bilkent.edu.tr/bilkent/eua-assessment/>

As part of this process, Bilkent has carried out a student workload based European Credit Transfer System (ECTS) study for the courses and their related assessments, this study has been used to address program learning outcomes that meet the area requirements with the Bologna Process. This web page can be used to access information available in this context.

Time to Check and Measure



- For the continuous improvement of the program, Program Outcomes should be assessed and evaluated regularly.

Measuring Program Outcomes

Steps:

1. **Revise Program Outcomes** if necessary
2. Select **the courses** that are best to measure each program outcome (from among the required courses)
3. Make sure that the grades of the assessments of the selected courses are entered to **SAPS**

Measuring Program Outcomes

- For the evaluation a **Program Outcome**, data should be collected through the **assessment methods** (such as homework assignments, projects, exams, reports, etc.) specified for the **Learning Outcomes** of the courses associated for that particular Program Outcome.
- **Performance metrics** to be used in the evaluation and the **expected value (success rate)** for each metric should be determined.

Measuring Program Outcomes

- Assessment data collected from course work should be analyzed and evaluated by a special committee / the Department Chair.
- Based on the evaluation results it should be decided whether a Program Outcome is attained or some actions need to be taken (i.e, whether any changes in some courses and/or adjustments/changes in the curriculum are required) for achieving that particular outcome.

Program Educational Objectives

Program Educational Objectives

- describe the career and professional accomplishments that programs are preparing graduates to attain within a few years of graduation
- should be consistent with the **mission** of the University, the Faculty and the Department

Evaluating Program Educational Objectives

- **Program Educational Objectives** should be **reviewed** periodically to check whether they meet the needs of the **constituents** (alumni, employers, external advisory board, students, faculty).
- Inputs for the review can be taken from the constituents through a variety of evaluation methods including meetings, surveys, face-to-face feedback, and so on.
- The review process may result in a revision of the Program Educational Objectives, and alignment of the curriculum with the revised objectives.