OBE

NEW PANEL WORKSHOP 2019
BOARD OF ACCREDITATION FOR ENGINEERING AND TECHNICAL EDUCATION, BANGLADESH
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LEARNING OUTCOMES

At the end of the presentation, participants are able to:
• explain the definition and purpose of OBE
• adopt the concept of constructive alignment in OBE
• ascertain the needed evidences towards an effective accreditation
THE FOCUS & APPROACH IN EAC ACCREDITATION

Outcome-Based Education (OBE) Programme

Engineering Education content and level (breadth & depth) are maintained

Programme Continual Quality Improvement (CQI)

Systematic (QMS)

Concentrate more on assessments of outcomes

IHL Self-Assessment Report (SAR) must focus more on whether have they achieved the 12 Programme Outcomes and how do they assess them.

Evaluation Panel (EP) will concentrate on reviewing the evidences for outcome achievements through more extensive documents reviews, longer interviews with staff, students and stakeholders.
EAC 8 QUALIFYING REQUIREMENTS

1. **OBE Implementation**
2. Minimum 135 SLT credits of which 90 credits must be engineering courses
3. **IDP**
4. **FYP** (min 6 credits)
5. **IT** (min 8 weeks)
6. **Full-time Teaching Staff** (minimum of 8 with at least 3 as PEng or equivalent)
7. **Teaching Staff: Student ratio** 1: 20 or better
8. **External examiner's report** (minimum of one report in two years)
Have program me educatio nal objective s, program me outcome s, course outcome s and performance indicator s

Stated objective s and outcome s can be assessed and evaluated

Centered around the needs of the students and the stakeholders

Program me outcome s address Knowledge, Skill & Attitude (C,P,A) to be attained by students

Course outcome s must satisfy the stated progra mme outcome s. There is no need for ANY (individual) course to address all progra mme outcome s.

Teachin g/ Learnin g method may have to be integrat ed to include different delivery method s to comple ment the traditional method.

Learning outcome s are intentio nal and assesse d using suitable performance indicato rs

CONSTRUCTIVE ALIGNMENT

OUTCOMES

STUDENT CENTRED

ACTIVE LEARNING

CQI
OBE is an education system that emphasize on Learning Outcomes.
OBE requires T&L activities to be constructively aligned to intended learning outcomes. How to help close the loop requires T&L activities to be constructively aligned to intended learning outcomes. The intended outcomes must clearly be indicated.
When and How to Assess?

Individual Improvement
To help them to improve
To give feedback to them
To place/class them

Gatekeeping
To grade/class them
To pass/fail them

Course/Programme Improvement
To improve the course/programme
To monitor the progress

Course/Programme Evaluation
To continue/stop the course/programme

Why Assess
Accountability (Summative)

What to assess
Learning/Teaching (Formative)

Who to Assess?
Individual
Programme/Group
**Assessment** – process that determines the level of attainment of the outcomes

| PURPOSE OF ASSESSMENT | IMPROVEMENT – curriculum, instructional practice, student services | ACCOUNTABILITY – institution, public, resource provider | ACCREDITATION – quality assurance, accrediting bodies |
**Formative Assessment**
The collection of data and the feedback of the results on an ongoing basis (G. Rogers & J. Sando, 1996)
- *For Continuous Improvement to students learning and T&L activities*

**Summative Assessment**
Designed to produce information that can be used to make decisions about the overall success of the project or process. (G. Rogers & J. Sando, 1996)
- *For grading purposes*

**FOR learning because educators use the results to modify and improve teaching techniques during an instructional period**

**OF learning because educators evaluate academic achievement at the end of an instructional period.**

**Types of Assessment**

**Direct Measures**
provide for the direct examination or observation of student knowledge or skills against measurable learning outcomes
- *From Assignments, tests, final exam, reports, presentation, etc, where the COs and POs can be measured directly.*

**Indirect Measures**
of student learning ascertain the perceived extent or value of learning experiences
- *From course end survey, exit survey, stake holder survey, interview etc.*
WHAT TO ASSESS

COGNITIVE DOMAIN

Knowledge outcomes - core concepts and material knowledge of a particular discipline; intellectual/mental ability

KNOWLEDGE, COMPREHENSION, APPLICATION, ANALYSIS, SYNTHESIS, EVALUATION

PSYCHOMOTOR DOMAIN

Behavioral and Skills outcomes - what a student can do; physical ability; behavior crucial to the curriculum’s impact

PERCEPTION, SET, GUIDED RESPONSE, MECHANISM, COMPLETE OVERT RESPONSE, ADAPTATION, ORGANISATION

AFFECTIVE DOMAIN

Attitudes and values outcomes - those educators believe to be important; habits of mind

RECEIVING, RESPONDING, VALUING, ORGANISATION, INTERNALISING
CQI process instituted
• Describe the process and significance of CQI in the programme planning

every semester, year, full cycle
TRACKING MECHANISMS FOR CQI

PROGRAMME PLANNING

REVIEWING OF PEOs AND POs

RESPONDING TO EE COMMENTS

TRACKING OUTCOMES THROUGH SYSTEMATIC ASSESSMENT

QM S

QUALITY ASSURANCE & BENCHMARKING

CURRICULUM DEVELOPMENT

CURRICULUM AND CONTENT REVIEW

RESPONDING TO FEEDBACK AND INPUTS FROM STAKEHOLDERS

RESPONDING TO EE COMMENTS

TRACKING CONTRIBUTION OF INDIVIDUAL COURSES TO POs
CQI best practices

Curriculum Review

EE & IAP

Gap Analysis

Safety culture

Processes and Results: course and programme levels

CONTINUITY & SUSTAINABILITY

Closing the loop

Benchmarking

Kingfisher

Processes and Results: course and programme levels
REFERENCES

• Accreditation Manual 2019, 2nd edition, Board of Accreditation for Engineering and Technical Education, Institution of Engineers Bangladesh
• EAC Manual 2017, Board of Engineers Malaysia
• IEA Graduate Attributes and Professional Competency Profiles, Version 3: 21 June 2013
• Siti Hawa Hamzah, Liew Chia Pao and Che Maznah Mat Isa, Knowledge Sharing on Accreditation Tips : Malaysian Experience, You Tube Publications, 2018
• Siti Hawa Hamzah and Che Maznah Mat Isa, Knowledge Sharing on Accreditation Tips : Malaysian Experience, You Tube Publications, 2016

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Thank You