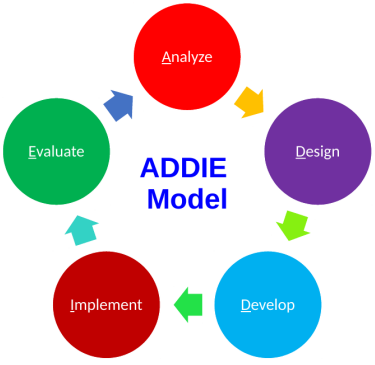
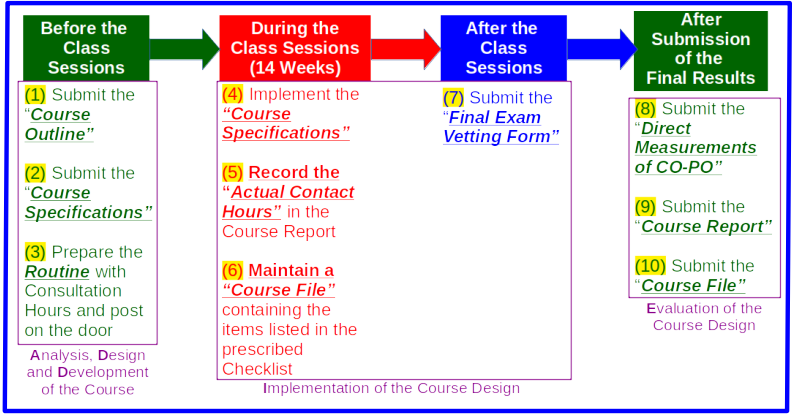
To improve or not to improve

That is the question





Module 4: OBE Implementation at AUST

Professor Dr. Mazharul Islam, P.Eng. (Alberta, Canada)

Director, IQAC
Ahsanullah University of Science and Technology, Dhaka, Bangladesh

18 June, 2021

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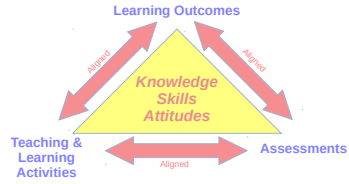
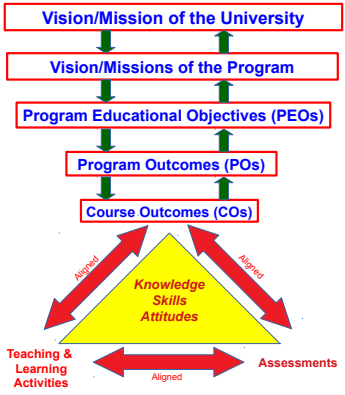


The OBE Framework at AUST



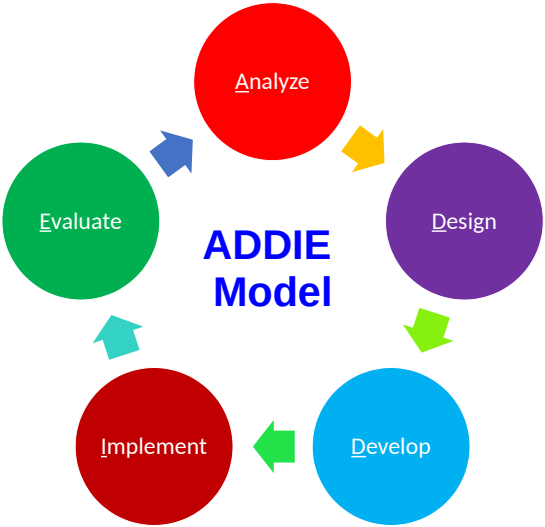
The Main Sources of the AUST OBE System Documents/Procedures

- BAETE, Bangladesh
  1. "*Accreditation Manual for Undergraduate Engineering Programmes*" [3]
  2. Workshop Presentations [2, 11, 15, 16]
  3. Communications with Prof. Siti Hawa, Prof. Megat, and Prof. Lock
- Engineering Accreditation Council (EAC), Malaysia
  1. "*Engineering Technology Programme Accreditation Standard 2019*" [8]
- National Center for Academic Accreditation and Assessment, KSA
  1. "*Program Accreditation Forms*" [10]
- International Islamic University Malaysia [14]
- University of Calgary, Canada
  1. "Course Design Program" [6]
- Instructional Skills Workshop (ISW) [1]
- Scholarly works on OBE [4, 7, 12, 17]
- Scholarly works on Engineering Education [9, 21]

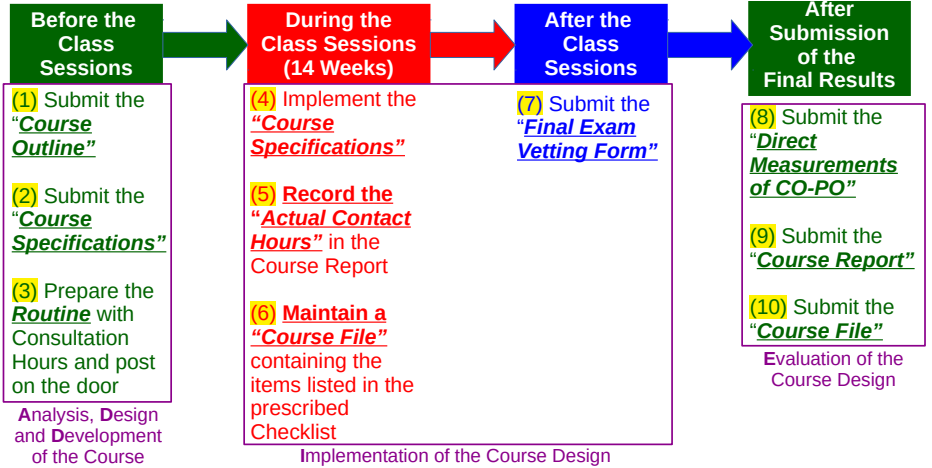
Overview of the Present OBE System at AUST

1. "Culminating Model" for determining the final POs
2. 4 CQI Loops for quality improvement of
   1. Curricula
   2. CO Attainment
   3. PO Attainment
   4. PEO Attainment
3. 5 Documents prepared by the Instructors
   1. Course Outline
   2. Course Specification
   3. Final Exam Vetting Form
   4. Direct Measurements of CO-PO
   5. Course Report
4. Course File for each course

ADDIE Model for Instructional Design [6, pp. 10 to 11],[5, 20]



10 Faculty Tasks for OBE Implementation at AUST



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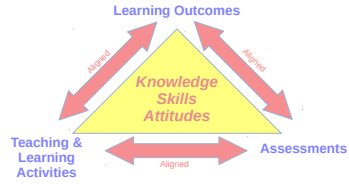
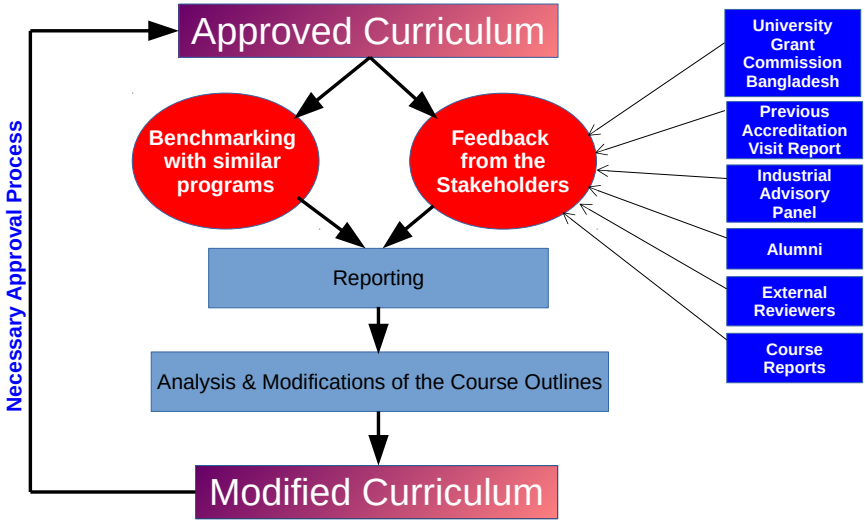


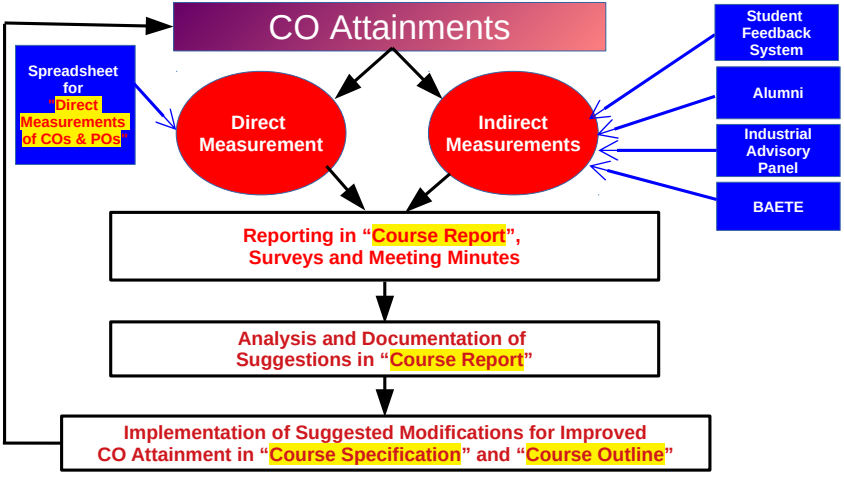
CQI Loops for Curriculum

(Required for BAETE Accreditation [3, Criterion 9.4.3, p. 7-26])



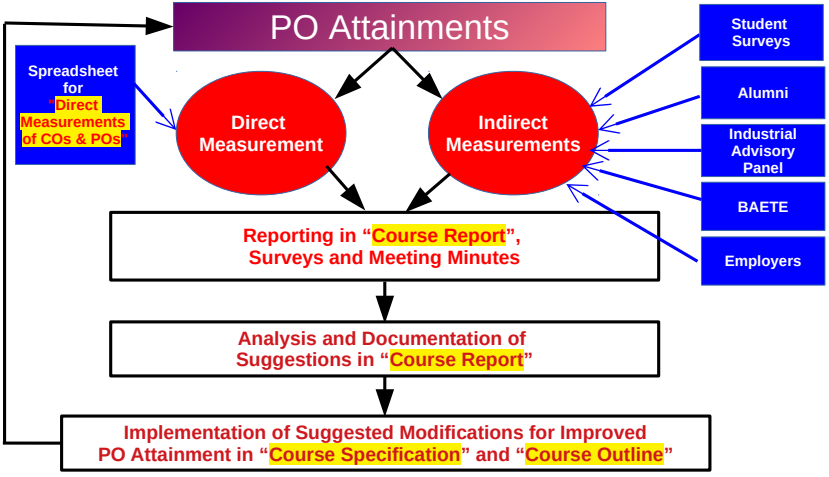
CQI Loops for Course Outcomes (COs)

(Required for BAETE Accreditation [3, Criterion 9.4.3, p. 7-26])



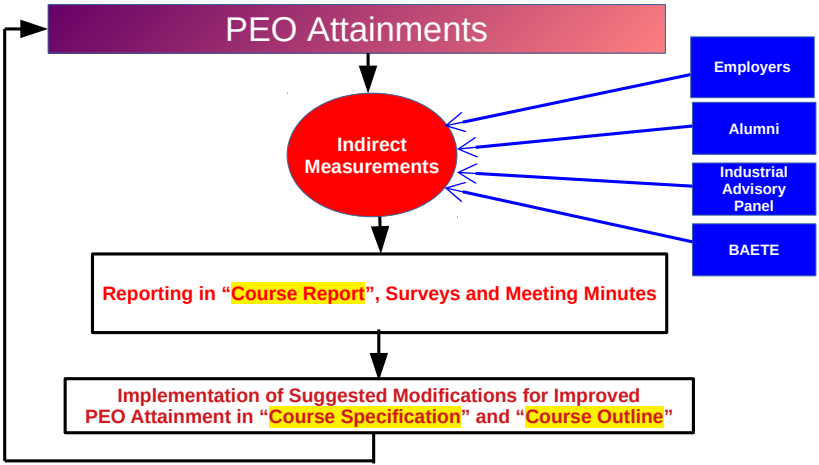
CQI Loops for Program Outcomes (POs)

(Required for BAETE Accreditation [3, Criterion 9.4.2, p. 7-25])



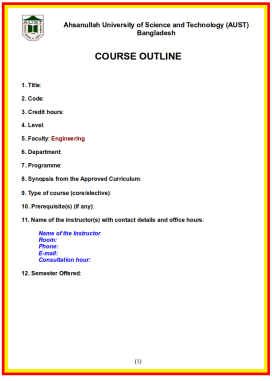
CQI Loops for Program Educational Objectives (PEOs)

(Required for BAETE Accreditation [3, Criterion 9.4.1, p. 7-25])



CONTENTS

(1) "Course Outline"



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COURSE OUTLINE

1. Title:
2. Code:
3. Credit hours:
4. Level:
5. Faculty: Engineering
6. Department:
7. Programme:
8. Synopsis from the Approved Curriculum:
9. Type of course (core/elective):
10. Prerequisite(s) (if any):
11. Name of the instructor(s) with contact details and office hours:

Name of the Instructor
Room:
Phone:
E-mail:
Consultation hour:

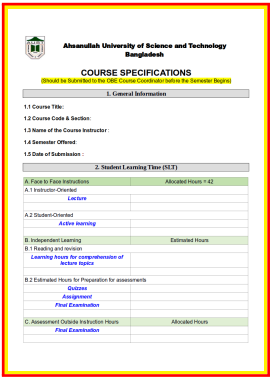
12. Semester Offered:

(1)

- Essential for OBE-based curriculum [UGC]
  - `http://ugc.portal.gov.bd/sites/default/files/files/ugc.portal.gov.bd/notices/e4c1bdfd_8db9_4af8_a538_34dbc84ed2b0/OBE131019.pdf`
- Should be approved by the appropriate authorities (Academic Council/UGC)
- Should be shared with the students on the first day of the class
- Instructors should not modify it more than 10%

CONTENTS

(2) "Course Specifications"



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COURSE SPECIFICATIONS
(Should be Submitted to the OBE Course Coordinator before the Semester Begins)

1. General Information

1.1 Course Title:

1.2 Course Code & Section:

1.3 Name of the Course Instructor :

1.4 Semester Offered

1.5 Date of Submission :

2. Student Learning Time (SLT)

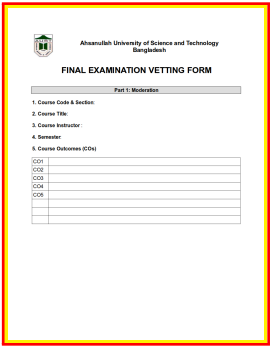
A. Face to Face Instructions	Allocated Hours = 42
A.1 Instructor-Oriented	
Lecture	
A.2 Student-Oriented	
Active learning	
B. Independent Learning	Estimated Hours
B.1 Reading and revision	
Learning hours for comprehension of lecture topics	
B.2 Estimated Hours for Preparation for assessments	
Quizzes	
Assignment	
Final Examination	
C. Assessment Outside Instruction Hours	Allocated Hours
Final Examination	

- Incorporated "Constructive Alignment"
- A "Course Specifications Form" has been suggested by UGC [18, pp. 52-54]
- "Guidelines for Compiling A Course Specification" was suggested by UGC [18, pp. 66-67]
- Critical for CQI [3, Criterion 9, pp. 7-24 to 7-26]
- Prescribed by National Center for Academic Accreditation and Assessment (NCAAA), Saudi Arabia [10]
  - `https://www.ncaaa.org.sa/enportal/accreditation/programmatic/pages/forms.aspx`

(Continued...)

CONTENTS

(3) "Final Exam Vetting Form"



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FINAL EXAMINATION VETTING FORM

Part 1: Moderation

1. Course Code & Section:
2. Course Title:
3. Course Instructor :
4. Semester:
5. Course Outcomes (COs)

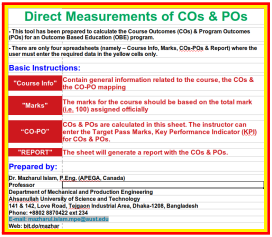
CO1	
CO2	
CO3	
CO4	
CO5	

- Critical for constructive alignment [3, pp. 7-18 to 7-19]
- Mainly based on [14]

(Continued...)

CONTENTS

(4) "Direct Measurements of CO-PO"



Direct Measurements of COs & POs

- This tool has been prepared to calculate the Course Outcomes (COs) & Program Outcomes (POs) for an Outcome Based Education (OBE) program.

- There are only four spreadsheets (namely – Course Info, Marks, COs-POs & Report) where the user must enter the required data in the yellow cells only.

Basic Instructions:

"Course Info"	Contain general information related to the course, the COs & the CO-PO mapping
"Marks"	The marks for the course should be based on the total mark (i.e, 100) assigned officially
"CO-PO"	COs & POs are calculated in this sheet. The instructor can enter the Target Pass Marks, Key Performance Indicator (KPI) for COs & POs.
"REPORT"	The sheet will generate a report with the COs & POs.

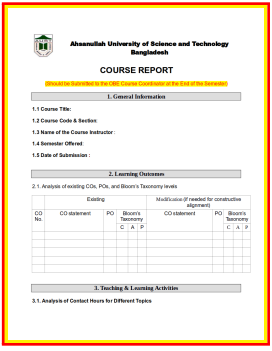
Prepared by:

Dr. Mazharul Islam, P.Eng. (APEGA, Canada)
Professor
Department of Mechanical and Production Engineering
Ahsanullah University of Science and Technology
141 & 142, Love Road, Tejgaon Industrial Area, Dhaka-1208, Bangladesh
Phone: +8802 8977422 ext 234
E-mail: mazharul.islam.mpe@aust.edu
Web: bit.do/mazhar

- Required for BAETE Accreditation
  - "*Describe the process of monitoring and providing continuous feedback to students regarding their academic performance and outcome achievement*" [3, p. 7-14]
- A template has been prepared in Excel format

CONTENTS

(5) "Course Report"



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COURSE REPORT

(Should be Submitted to the OBE Course Coordinator at the End of the Semester)

1. General Information

1.1 Course Title:

1.2 Course Code & Section:

1.3 Name of the Course Instructor :

1.4 Semester Offered:

1.5 Date of Submission :

2. Learning Outcomes

2.1. Analysis of existing COs, POs, and Bloom's Taxonomy levels

Existing					Modification (if needed for constructive alignment)				
CO No.	CO statement	PO	Bloom's Taxonomy			CO statement	PO	Bloom's Taxonomy		
			C	A	P			C	A	P

3. Teaching & Learning Activities

3.1. Analysis of Contact Hours for Different Topics

- Required for BAETE Accreditation
  - "*The concerned course instructor should prepare course review reports including CQI files for the courses he/she is teaching*" [3]
- "Guidelines for Writing Course Reports" was suggested by UGC [18, pp. 63-65]
- Critical for CQI [3, Criterion 9, pp. 7-24 to 7-26]
- A new template has been developed

CONTENTS

Rationale for a "Course File"

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COURSE FILE CHECKLIST

1. Semester:

2. Academic Year:

3. Course Title:

4. Course Code & Section:

5. Instructor(s):

No.	Item	Remarks
1	Course Outline	
2	Course Specification	
3	Weekly Routine with Consultation Hours	
4	Students attendance record	
5	Google Drive URL for the Lecture slides / Handouts	
6	Quiz questions with marking schemes	
7	Three samples from each quiz (highest, medium & lowest)	
8	Final Examination Vetting Form	
9	Final Examination question paper and marking schemes	
10	Three samples of Final Examination answer scripts (highest, medium & lowest)	
11	Student feedback record (if any)	
12	Direct Measurements of COs & POs	
13	Course Report	

Course File Prepared by:	Checked by:
Signature: _____ Name : Department: Date:	Signature: _____ Name: OBE Program Coordinator, *Name of the Department* Date:

- Item 6.1.6 of "Self-Assessment Report Format" [3, pp. 7-18 to 7-19]
- Contents should enable the Evaluation Team to assess the efficacy of OBE implementation
- Newly developed based on [14]

Course File: Items

1. Course Outline
2. Course Specification
3. Weekly Routine with Consultation Hours
4. Students attendance record
5. Lecture slides / Handouts in a CD or a DVD
6. Quiz questions with marking schemes
7. Three samples from each quiz (highest, medium & lowest)
8. Final Examination Vetting Form
9. Final Examination question paper and marking schemes
10. Three samples of Final Examination answer scripts (highest, medium & lowest)
11. Student feedback record (if any)
12. Direct Measurements of COs & POs
13. Course Report

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I

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THANK YOU

For further clarifications/feedback, contact:

Dr. Mazharul Islam, P.Eng. (APEGA,Canada)
Professor
Department of Mechanical and Production Engineering
Ahsanullah University of Science and Technology
141 & 142, Love Road, Tejgaon Industrial Area, Dhaka-1208, Bangladesh
E-mail: mazharul.islam.mpe@aust.edu
Web: http://bit.do/mazhar