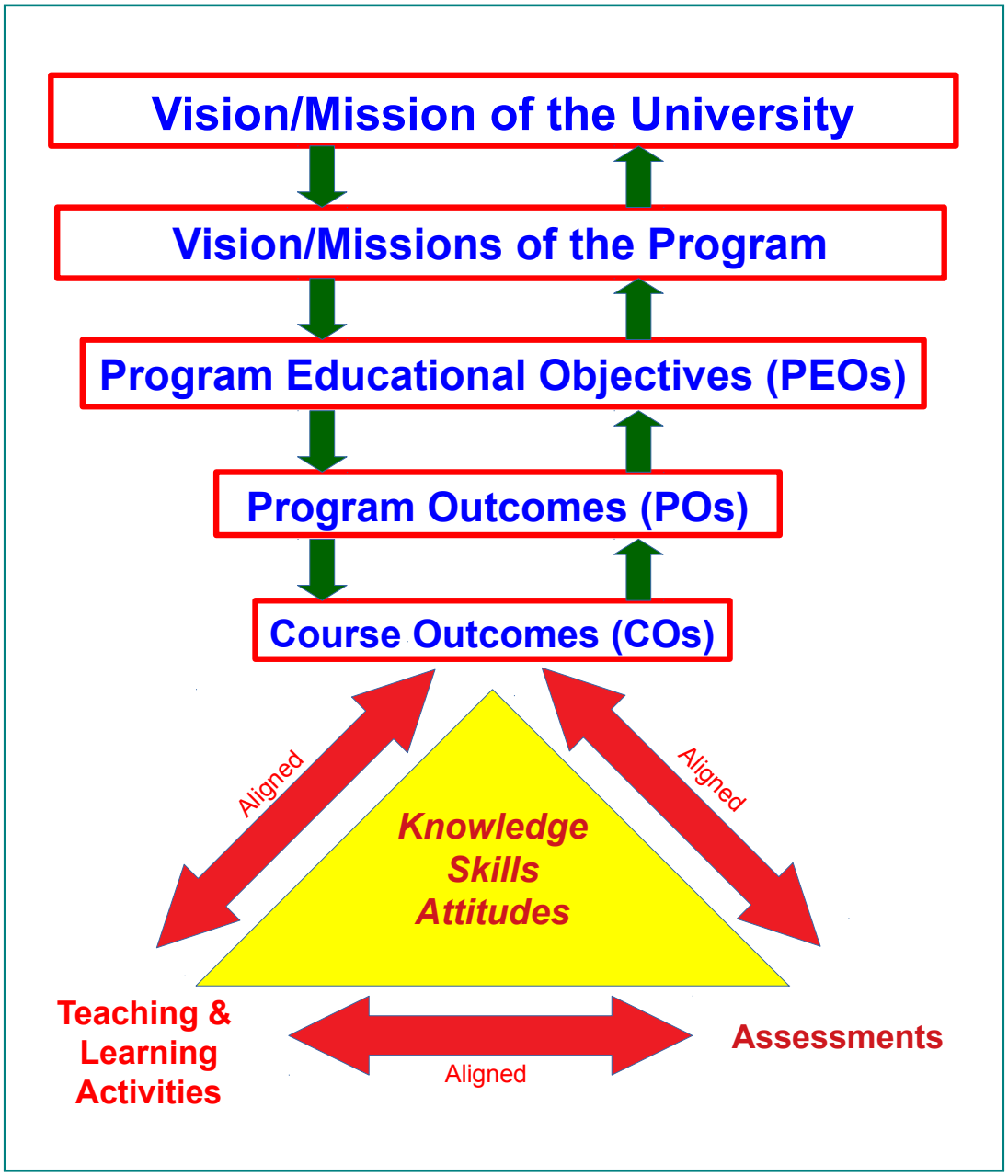
The Framework for Implementing Outcome-based Education (OBE) at AUST



Mazharul Islam

"Implementation of Outcome Based Education (OBE) at AUST" by Professor Mazharul Islam

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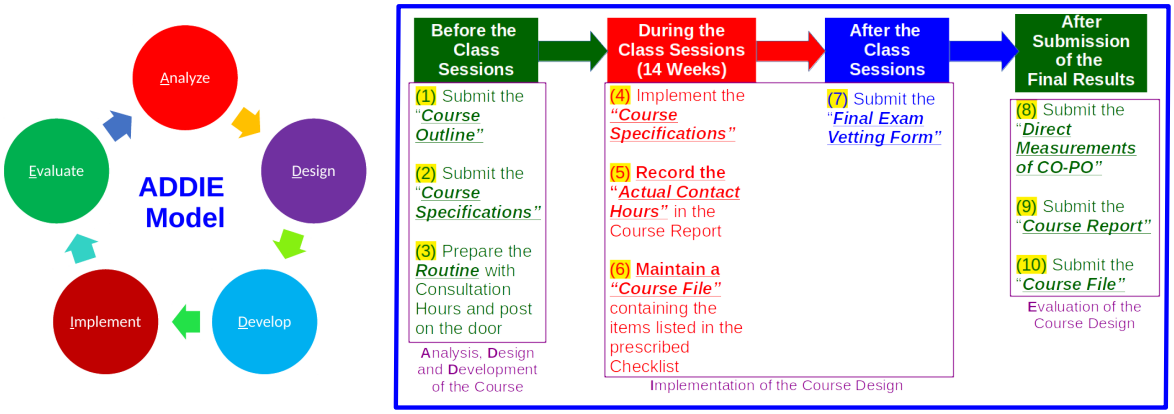
URL of the latest version of this report: `http://iqac.aust.edu/obe/obe-implementation-at-aust`

To improve or not to improve
That is the question



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August, 2021

In the Name of Allah

The Most Beneficent

The Most Merciful

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Acronyms & Abbreviations

AUST	Ahsanullah University of Science and Technology
BAETE	The Board of Accreditation for Engineering and Technical Education
CEA	Complex Engineering Activities
CEP	Complex Engineering Problem Solving
CO	Course Outcome
CQI	Continuous Quality Improvement
CS	Course Specification
IEA	International Engineering Alliance
OBE	Outcome-based Education
PEO	Program Educational Objective
PO	Program Outcome
POIs	Program Outcome Indicators
SAR	Self Assessment Report
T&L	Teaching and Learning

Introduction

Outcome-based education (OBE), illustrated in Figure 2.1, is a *quality-assurance* system and gradually it is becoming the leading educational model all around the globe. It aims to prepare the graduates with *knowledge*, *skills* and *attitudes* appropriate for the 21st century. According to Felder & Brent (16) - "*In OBE, the faculty of a program reaches consensus on a set of program learning outcomes - knowledge, skills, and attitudes that the students are supposed to acquire by the time they graduate.*". For engineering programs in Bangladesh, the OBE-based system is required for accreditation by the Board of Accreditation for Engineering and Technical Education or BAETE (6). It should be noted that BAETE is in the process of becoming a signatory of the *Washington Accord* (`http://www.ieagreements.org/accords/washington/`) with full rights in the near future.

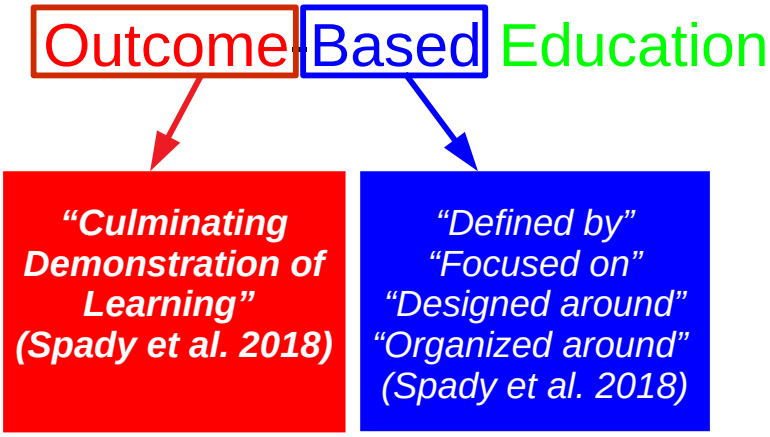

Figure 2.1: OBE according to Spady et al. (29)

A framework for implementing OBE at Ahsanullah University of Science and Technology (AUST) has been designed. Currently, the six engineering programs at AUST have started to implement this framework for shifting towards OBE from the traditional content-based approach. One of the main aims of this framework is to fulfill the criteria of the BAETE accreditation according to the latest version of the manual (7). In the subsequent chapters, different aspects of this framework are discussed.

Overview of the OBE Framework

3.1 The Big Picture

The overall framework for OBE implementation at AUST is illustrated in Figure 3.1. More details about these can be found in the IQAC's website at `http://iqac.aust.edu/wp-content/uploads/2021/06/OBE_Implementation_v1.pdf`. The framework based on OBE-related curricula (discussed in 5) which is supported by constructive alignment (illustrated in Figure 6.1 and discussed in Chapter 6) and Continuous Quality Improvement (CQI) loops (Figure 3.2) discussed in Chapter 7.

In Figure 3.2, relationship between the CQI loops for the COs, POs, and PEOs are illustrated and mapped with the Vision/Missions of the Program. It should be mentioned that there should be appropriate documentations of the attainments of COs, POs, and PEOs before and after the usual assessment activities (like class assessments, quizzes, final exams). To address this issue, two documents, namely (1) Course Specifications (Section 8.2), and (2) Course Report 8.5, were prepared for the CQI loops at different engineering programs at AUST. The four CQI-loops designed for the engineering programs at AUST are discussed in Chapter **??**.

3.2 The Main Sources Used for the OBE Framework at AUST

Initially, the source for OBE implementation was the first edition of BAETE's OBE-based Accreditation manual (6). On March 2019, BAETE released the 2nd Edition of Accreditation Manual (6) which eventually adopted and necessary modifications were done (e.g. incorporation of eight Knowledge Profiles, CEP & CEA). Apart from the latest version of BAETE's manual, the following resources were consulted for developing the OBE-related processes at AUST.

- Training Materials
    1. BAETE's training events (workshops/symposium) (5, 18, 23, 24)
    2. "Course Design Program", University of Calgary, Canada (13)
    3. Instructional Skills Workshop (ISW), University of Calgary, Canada (1)
- Accreditation related documents from overseas
    1. "*Engineering Technology Programme Accreditation Standard 2019*", Engineering Accreditation Council (EAC), Malaysia (15)
    2. "*Program Accreditation Forms*", National Center for Academic Accreditation and Assessment, KSA (17)
- Forms/Templates used at Kulliyyah of Engineering, International Islamic University Malaysia (22)
- Scholarly works on OBE (8, 14, 19, 29)

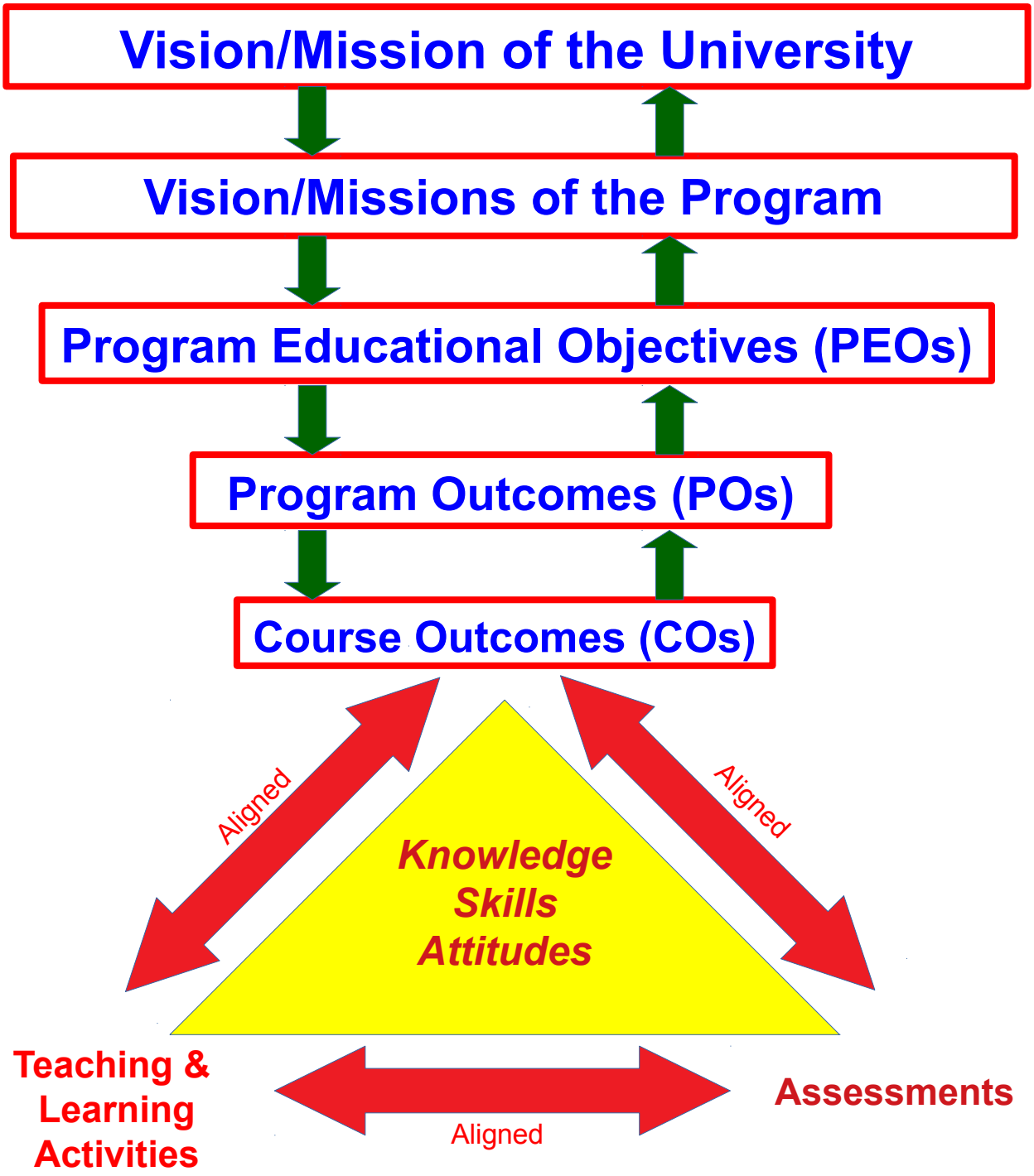

Figure 3.1: The OBE Implementation Framework at AUST: The Big Picture

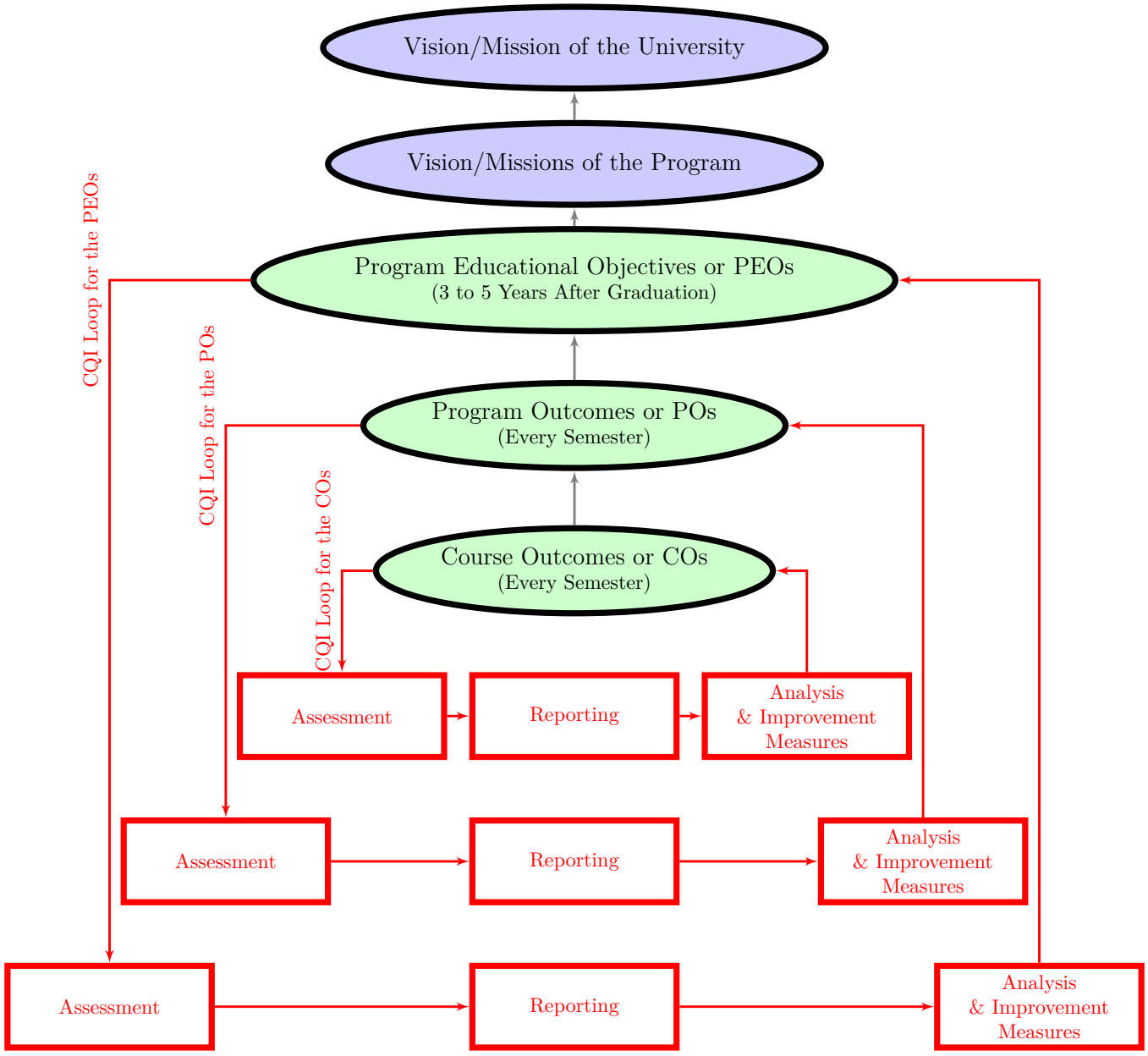

Figure 3.2: The CQI-loops for PEOs, POs, and COs

- Scholarly works on Engineering Education (16, 32)

Apart from the above resources, Professor Mazhar personally communicated with Prof. Siti Hawa, Prof. Megat, and Prof. Lock, who are the distinguished mentors of BAETE.

Implementation of the OBE Framework at AUST

It requires concerted efforts at central and program levels to implement OBE at AUST.

4.1 The Main Phases of OBE Implementation at AUST

The overview of the phases of OBE-implementation at AUST is depicted in Figure 4.1.

Figure 4.1: OBE Implementation at AUST

4.1.1 The Formation of the Committees for OBE Implementation

In December 2018 a central committee was formed to implement OBE at different engineering departments of Ahsanullah University of Science and Technology (AUST). This committee had twelve meetings in the past to gradually implement OBE-based teaching-learning and assessment activities at AUST.

Since December 2018, the central committee has been coordinating OBE-related activities at all the engineering departments (Appendix A). Additionally, there are departmental OBE coordinators

and committees have been formed to implement OBE at departmental levels which are playing the key roles in OBE implementation at departmental level (Appendix B).

4.1.2 The Design and Development of the Processes/Mechanisms

To implement OBE at any engineering program for BAETE accreditation, the following processes/mechanisms are mainly required for accreditation.

- Curriculum and Teaching & Learning Processes (7, Criterion 6)
- Assessment of Program Educational Objectives (PEOs) (7, Criterion 7)
- Assessment of Course Outcomes (COs) & Program Outcomes (POs) (7, Criterion 8)
- Mechanisms for Continuous Quality Improvement (CQI) (7, Criterion 9) (Criteria 9 of SAR)
- Interactions with the Industry (7, Criterion 10)

Professor Mazhar, along with the central committee members, designed and developed processes/mechanisms to satisfy the criteria required by the BAETE manual mainly based on the sources listed in Section 3.2.

4.1.3 The Internal and External Training Events

In order to implement OBE, one of the critical elements is the awareness of every faculty members regarding:

- BAETE Accreditation
- Program Educational Objective (PEO)
- Program Outcome (PO)
- Course Outcome (CO)
- Bloom's Taxonomy
- Quality Assurance;
- Self Assessment Report
- PO-PEO Mapping
- CO-PO Mapping
- Continuous Quality Improvement (CQI)
- Complex-Engineering Problem-Solving (CEP)
- Complex-Engineering Activities (CEA)

Over the years, both internal and external experts (from BUET and East-West Univeristy) delivered training activities related to OBE. Please visit `http://iqac.aust.edu/obe/events` for more information regarding the internal events. Meanwhile, several AUST faculty members also participated in numerous events arranged by BAETE (Appendix C), which contributed significantly during the OBE implementation phase. Also, several AUST faculties attended courses offered by fLTR (Appendix D) to obtain training in eLearning and Teaching.

4.1.4 The Preparation of Required Templates/Checklist/Exemplars

In order to streamline OBE related activities, appropriate documentations are required. The following documents were prepared and distributed among the concerned faculty members:

- A Checklist for "Course File" for OBE-based Accreditation
- A Template for preparing Course Outline has been prepared and distributed
- A template for "Course Specification"
- A template for "Final Exam Vetting Form" for OBE-based moderation process
- A template for Direct CO-PO Measurements
- A template for "Course Report"

4.1.5 Preparation of Self-Assessment Reports for BAETE Accreditation

In order to obtain accreditation from BAETE, an engineering program must submit a Self-Assessment Report (SAR). Three programs at AUST, Industrial and Production Engineering (IPE), Mechanical Engineering (ME) & Textile Engineering (TE) started to implement OBE from the Fall 2019 semester. A SAR was already prepared and submitted to BAETE for the TE Program. Currently, IPE and ME are in the process of finalizing their SAR for BAETE accreditation.

4.2 The Role of the Central Committee

It has already been mentioned in subsection 4.1.1 that a central committee has been coordinating OBE-related activities at all the engineering departments (Appendix A). It should be noted that recently the committee was reconstituted and OBE Program Coordinators from the Department of Architecture and the School of Business have also been included in the central committee to foster the OBE implementation process in their respective departments.

4.2.1 The Terms of Reference for the Central Committee

According to the latest OFFICE ORDER, dated 7 March 2021 (Appendix A), the Terms of Reference (ToR) for the Central Committee are - "***The Committee will co-ordinate implementation of OBE in different engineering programs at AUST and provide necessary guidelines to the Program Coordinators so that they can disseminate the knowledge and guidelines to the faculty members of their respective departments for implementation of the OBE in the education system of AUST.***"

4.2.2 Meetings

December 18, 2018 - The First Central Meeting on OBE

This was the inception meeting of the AUST central committee to implement OBE. The meeting was attended by the VC, the Deen of Engineering, Director of IQAC ...

1. A presentation on BAETE Accreditation Manual by Professor Dr. Afzal Ahmed
2. A presentation on "Framework for OBE Implementaton at AUST" by Professor Dr. Mazharul Islam
3. A Template for Course Outline
4. A Sample Course Outline

January 9, 2019 - The Second Meeting

Agenda for this meeting:

1. Action plan to implement OBE at AUST
2. The expected milestones during this semester
3. Topics for the upcoming seminars on "Introduction to OBE" at the departmental level

Professor Dr. Mazharul Islam delivered a presentation on "Introduction to Outcome-Based Education (OBE)" during this meeting.

April 23, 2019 - The Third Meeting

Agenda for this meeting:

1. Status of the Course Outlines for different engineering programs
2. Status of the CO-PO mappings for different engineering programs
3. Curriculum Gap Analysis for OBE Implementation
4. Other issues

May 12, 2019 - The Fourth Meeting

Agenda for this meeting:

1. Status of the Course Outlines for different engineering programs
2. Status of the CO-PO mappings for different engineering programs
3. Status of the Curriculum Gap Analysis for OBE Implementation
4. CO-PO Direct Measurement
5. Course Specification Template
6. Constructive Alignment
7. Other issues

July 7, 2019 - The Fifth Meeting

Agenda for this meeting:

1. Lessons learned from the day long hands-on Orientation Program on OBE at BAETE
2. Implementation strategies for different programs of AUST
3. Invitation of resources persons from BAETE for conducting OBE workshop at each engineering program of AUST
4. Other Issues

July 31, 2019 - The Sixth Meeting

Agenda for this meeting:

1. Storage of Course Files
2. Revising the Marks for Assessments for the Theory Courses
3. Curriculum Gap Analysis for OBE Implementation
4. Required Steps for Curriculum Revision
5. Committee Activities during Spring 2019

Sep 29, 2019 - The Seventh Meeting

Agenda for this meeting:

1. Status of Implementation of OBE at Different Engineering Programs
2. Engineering Curricula Revision for UGC Approval

Oct 6, 2019 - The Eighth Meeting

Agenda for this meeting:

1. template for "Course Specification"
2. template for "Course Report"
3. template for "Final Examination Vetting Form"
4. template for "Direct Measurements of COs & POs"
5. Seminar on "Implementation of OBE based on Culminating Courses"

Oct 28, 2019 - The Ninth Meeting

Agenda for this meeting:

1. Status of OBE implementation in the AUST engineering programs
2. UGS's "Outcome Based Education(OBE) Curriculam Template"
3. Departmental workshops on OBE Implementation Framework
4. Preparation of Course Specifications for all the courses
5. Development of OBE-based curriculums for engineering programs
6. Storage facilities for the Course Files

Nov 17, 2019 - The Tenth Meeting

Agenda for this meeting:

1. Turnitin for Academic Development
2. Departmental Workshop for (a) Modification of Course Outlines for Fall 2019 with extended Mappings with Knowledge Profiles, Ranges of Complex Engineering Problem Solving, and Complex Engineering Activities; (b) Preparation of Course Specifications for Fall 2019

Feb 18, 2020 - The Eleventh Meeting

Agenda for this meeting:

1. Status of the Course Outlines for Fall 2019 for the 6 Engineering Programs
2. Status of the Course Specifications for Fall 2019 for the 6 Engineering Programs
3. The curriculum update process for UGC approval & BAETE accreditation
4. Identification of Critical Issues related to OBE Implementation at AUST
5. Procurement of Course Files
6. Fabrication of Shelves in the departmental conference rooms for storing the Course Files
7. Miscellaneous

Jul 9, 2020 - The Twelfth Meeting

Agenda for this meeting:

1. Status of the Revised OBE-based Curriculum for UGC approval
2. OBE Templates from UGC for the New Curriculum
3. Miscellaneous

Nov 24, 2020 - The Thirteenth Meeting

Agenda for this meeting:

1. Final Year Design Project (FYDP)
2. Open ended lab
3. Update of OBE based syllabus

June 10, 2021 - The Fourteenth Meeting

Agenda for this meeting:

1. Introduction of the members of the newly formed AUST OBE Committee.
2. Update of OBE activities of different academic programs of AUST.
3. Miscellaneous.

4.3 The Role of the Program-level OBE Program Coordinators & Departmental OBE Committees

Based on the suggestions/templates, the departmental OBE committees, with the help of the OBE Program Coordinators, need to perform the following critical tasks:

1. Define the Vision for the Program
2. Define the Missions for the Program

3. Define the PEOs
4. Map the PEOs with the Missions of the Program
5. Map the PEOs with the POs of the Program
6. Determine the Culminating Courses based on GAP Analysis
7. Map all the COs with the POs, knowledge profiles, CEP and CEA

4.4 The Role of the IQAC

According to Article 36 of the Private University Act 2010, each private university in Bangladesh should have an internal quality assurance cell or unit to ensure the quality of education, and the related measures should be documented in the annual report[1].

4.4.1 Resolution for Agenda 02002 of the 20^{th} Meeting of the Academic Council of AUST

In the 20^{th} Meeting of the Academic Council of AUST (Appendix E), which was held on 25 July 2020, the Director of IQAC delivered a short presentation on OBE implementation related activities at AUST, and the following resolution was adopted:

"*After thorough discussions, it was decided in principle that all engineering departments will implement OBE in their curriculum following the BAETE accreditation manual, which is in accordance with the Washington Accord, in consultation with the Director (IQAC). Non-engineering Department/School will consult with the respective Deans of the Faculty and the Director (IQAC) to finalize the draft curriculum as per OBE requirements. The council appreciated the progress made by some departments and expect that the entire undergraduate curricula will be drafted as per OBE system and should be submitted in the next meeting of the Academic Council.*"

4.4.2 The Main OBE-related Services from the IQAC

At present, the Director of IQAC is

- facilitating training events for the students and faculties (please visit `http://iqac.aust.edu/obe/events/` for the list of internal Dissemination/Training Events at AUST)
- sharing of relevant OBE-related templates/exemplars/documents through the IQAC website
- providing consultation services for the individual faculties with OBE-related matters (e.g. constructive alignment, teaching & learing activities, assessments)
- providing consultation services for the programs with OBE-related matters (e.g. preparation of the curricula, preparation of the SAR for BAETE Accreditations, templates/forms for documentation, surveys for indirect measurement of POs/PEOs, CQI)
- maintaining liaison with the UGC, the BAC, and the BAETE in OBE/Accreditation related matters

[1] this sentence is translated from Article 36 in Page 7441 of the Private University Act 2010 which is written in Bangla. Please refer to the original document at `http://www.ugc.gov.bd/sites/default/files/files/ugc.portal.gov.bd/legislative_information/7269d62b_2e66_4222_8a8b_39bc11c1a31c/PrivateUniversityAct-2010.pdf`

OBE-based Curricula

To address the requirements of BAETE (7), the following elements were prescribed for the OBE-based curricula of the engineering programs at AUST:

- The Vision & Mission of the University (25, p. 12)
- The Vision & Missions of the Program defined by the engineering programs
- Program Educational Objectives (PEOs) defined by the engineering programs
- 12 Program Outcomes (POs) or Graduate Attributes (**??**) prescribed by the BAETE (7, Section 4.8);
- 8 Knowledge Profiles (**??**) prescribed by the BAETE (7, Section 4.8);
- 7 Ranges of Complex Engineering Problem Solving (CEP) (**??**) prescribed by the BAETE (7, Section 4.8); and
- 5 Ranges of Complex Engineering Activities (CEA) (**??**) prescribed by the BAETE (7, Section 4.8); and
- Course Outcomes defined for all the Courses in the curricula of the engineering programs approved by the UGC;

It should be noted that the 12 POs, 7 CEP, and 5 CEA were originally prescribed by the International Engineering Alliance (IEA) (20) in 2013. BAETE has adopted these in their accreditation manual for undergraduate engineering degrees (7).

5.1 The Main Elements

At any program, OBE should be established using some set rules prescribed by the relevant authorities or accreditation agencies. For the engineering programs of AUST, the main basis for OBE implementation was BAETE's manual for the undergraduate engineering programs (6).

5.1.1 The Vision & Mission of the University

The Vision & Mission of AUST, set by the relevant authority, should be aligned withthe Vision & Missions of the respective programs which are approved by the UGC. They are included in (25, p. 12) and shown in the subsequent boxes.

The Vision of AUST

"***Ahsanullah University of Science and Technology was established with the aim to be a premier center of excellence in science, engineering, technology and business by creating and transferring knowledge with human values to the young generations in such a way that they, in turn, could enhance the quality of life in Bangladesh and beyond.***" (25, p. 12)

The Mission of AUST

"***In order to achieve its vision, Ahsanullah University of Science and Technology is engaged in developing human resources in the fields of science, engineering, technology and business to meet the ever-changing needs of the society in the perspective of the highly complex and globalized world. The curricula of the university are designed to produce quality graduates imbued with the spirit of ethical values and equipped with knowledge and skills appropriate to their professional fields. AUST graduates are taught and trained to accept the challenges in their arena of jobs and to contribute meaningfully to the society and overall development of the country.***" (25, p. 12)

5.1.2 The Vision & Missions of the Program

The Vision & Missions of the Program are set by the respective engineering programs, and they should be aligned with (a) the Vision & Mission of the University (Section 5.1.1) and (b) The PEOs (Section 5.1.3).

5.1.3 PEOs

"***broad statements that describe the career and professional accomplishments that the program is preparing graduates to achieve***" (6, Section 4.7)

According to (6, Section 4.7) - "*PEOs are assessable based on the attributed and accomplishments of graduates, preferably those who have worked for 3 to 5 years after graduation*". Also, the PEOs should be aligned with (a) the Vision & Missions of the Program (Section 5.1.2) and (b) The POs (Section 5.1.4).

5.1.4 12 POs

"***describe what students are expected to know and be able to do by the time of graduation***" (6, Section 4.8)

Currently, BAETE has prescribed 12 POs (6, Section 4.8), shown in Table 5.1, which are related to different knowledge, skills and attitudes. However, engineering programs can adopt additional POs if required. According to (6, Section 4.7) - "*The program must demonstrate that by the time of graduation, students have achieved an acceptable minimum level of certain knowledge, skills and behavioral traits*". In the prescribed template for the Course Outlines, all the COs, defined for a particular course, should be mapped with the relevant POs.

Table 5.1: Mapping of POs with the Knowledge Profiles, CEP and CEA Ranges

PO	Knowledge Profile	Range of Complex Engineering Problem Solving	Range of Complex Engineering Activities
PO1 - Engineering knowledge	K1 - K4	P1 - P7	
PO2 - Problem analysis	K1 - K4	P1 - P7	
PO3 - Design/development of solutions	K5	P1 - P7	
PO4 – Investigation	K8	P1 - P7	
PO5 - Modern tool usage	K6	P1 - P7	
PO6 - The engineer and society	K7	P1 - P7	
PO7 - Environment and sustainability	K7	P1 - P7	
PO8 – Ethics	K7		
PO9 - Individual work and teamwork			
PO10 – Communication			A1 - A5
PO11 - Project management and finance			
PO12 - Life-long learning			

5.1.5 8 Knowledge Profiles

"***The attributes of Accord programmes are defined as a knowledge profile, an indicated volume of learning and the attributes against which graduates must be able to perform***" (20, p. 4)

According to (6, Section 4.7) - "*An engineering program that aims to attain the abovementioned POs should ensure that its curriculum encompasses all the attributes of the Knowledge Profile (K1-K8) as presented in Table 4.1 and as included in the PO statements*". The eight Knowledge Profiles are shown in Table 5.2. In the prescribed template for the Course Outlines, all the COs, defined for a particular course, should be mapped with the relevant knowledge profiles.

5.1.6 7 Ranges of CEP

"***Complex Engineering Problems have characteristic P1 and some or all of P2 to P7***" (6, Section 4.8)

According to (6, Section 4.8), there are seven ranges of CEP as illustrated in Figure 5.1. In the prescribed template for the Course Outlines, all the COs in selected courses (mainly Final Year Project and design-related courses) should be mapped with the relevant range(s) of CEP. The following templates have been prepared by the Director of IQAC for the AUST engineering programs and they are available at `http://iqac.aust.edu/obe/obe-resources-faculties/`:

- A template for "Internal Audit and Moderation Form for the Courses with Projects to address (1) Complex Engineering Problem Solving, and (2) Complex Engineering Activities"
- A template for "Reporting of an Assessment related to (1) Seven Ranges of Complex Engineering Problem Solving, and (2) Five Ranges of Complex Engineering Activities"

Table 5.2: The Eight Knowledge Profiles Prescribed by the BAETE (7, Table 4.1)

Knowledge Profile	Area [Hamzah and Pao 2019]	Attribute
K1	Natural Sciences	A systematic theory-based understanding of the natural sciences applicable to the discipline
K2	Mathematics	Conceptually based mathematics, numerical analysis, statistics and the formal aspects of computer and information science to support analysis and modeling applicable to the discipline
K3	Engineering fundamentals	A systematic theory-based formulation of engineering fundamentals required in the engineering discipline
K4	Specialist Knowledge	Engineering specialist knowledge that provides theoretical frameworks and bodies of knowledge for the accepted practice areas in the engineering discipline; much is at the forefront of the discipline
K5	Engineering Design	Knowledge that supports engineering design in a practice area
K6	Engineering Practice	Knowledge of engineering practice (technology) in the practice areas in the engineering discipline
K7	Comprehension	Comprehension of the role of engineering in society and identified issues in engineering practice in the discipline: ethics and the engineer's professional responsibility to public safety; the impacts of engineering activity; economic, social, cultural, environmental and sustainability
K8	Research Literature	Engagement with selected knowledge in the research literature of the discipline

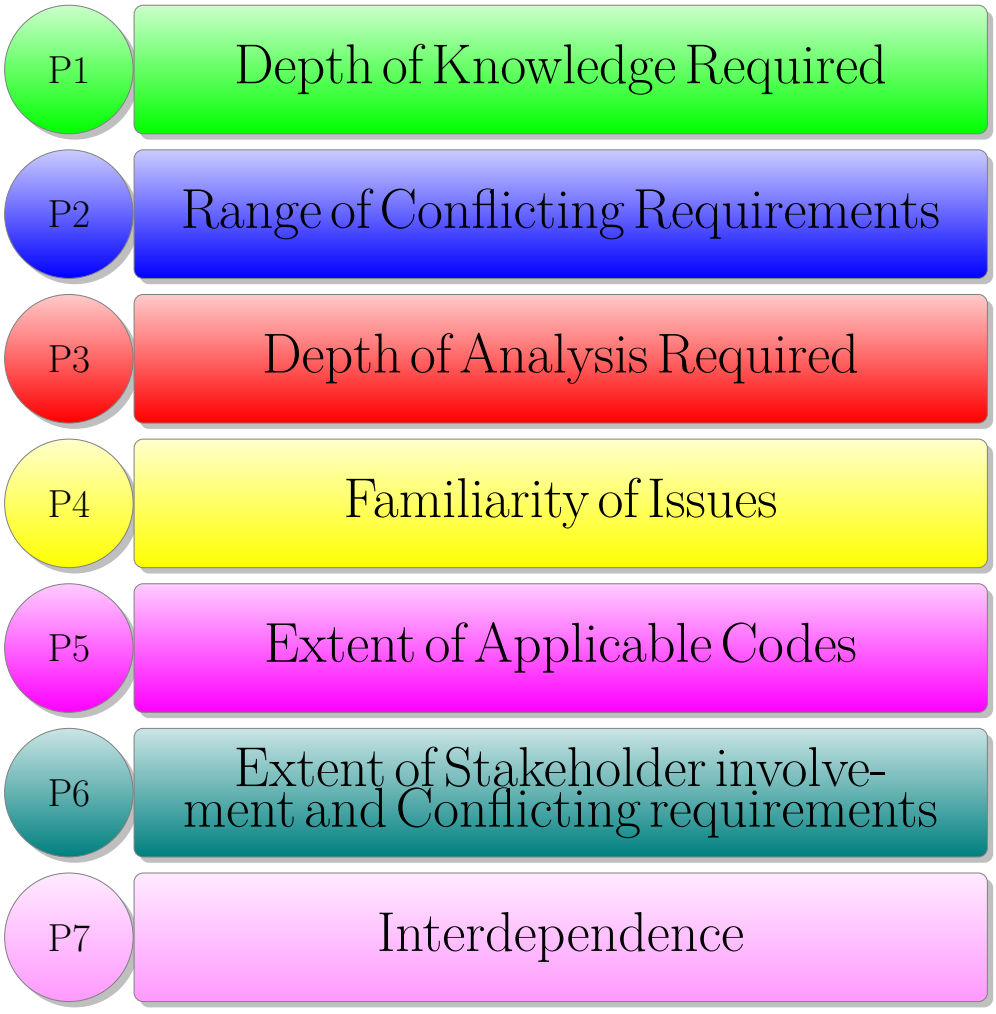

Figure 5.1: The Seven Ranges of Complex Engineering Problem Solving

5.1.7 5 Ranges of CEA

"***Complex activities means (engineering) activities or projects that have some or all of the following characteristics***" (6, Section 4.8)

According to (6, Section 4.8), there are five ranges of CEA as illustrated in Figure 5.2. In the prescribed template for the Course Outlines, all the COs in selected courses (mainly Final Year Project and design-related courses) should be mapped with the relevant range(s) of CEA. As mentioned earlier,

Figure 5.2: The Five Ranges of Complex Engineering Activities

5.1.8 Course Outcomes

"***statements of what students should be able to accomplish after completing the course***" (13)

To implement OBE in the six engineering programs, Course Outcomes (COs) were defined for each course based on the existing curricula approved by the UGC. These Course Outcomes were mapped with the twelve Program Outcomes (POs), also known as Graduate Attributes, and mappings of COs with the POs are included in the Course Outlines in a prescribed format. Apart from the Course Outline, the faculties were also given templates for

- "Course Specifications" (Section 8.2) which can help the AUST faculties to design their courses in the beginning of the semester, as illustrated in Figure 9.1, using concepts like Student Learning Time (SLT), Constructive Alignment, and Assessment Blueprint;
- "Final Examination Vetting Form" (Section 8.3) mainly to ensure constructive alignment;
- CO-PO Direct Measurements (Section 8.4) for determining COs for courses based on assessments, which can be mapped with the corresponding POs; and

- Course Report (Section 8.5) for evaluation of the course at the end of the semester, as illustrated in Figure 9.1, and to suggest measures to enhance the attainments of COs, POs & PEOs in the future courses. These suggestions should be addressed in the "Course Specifications" for the next semester. This approach is termed as the Continuous Quality Improvement (CQI) as depicted in Figures 8.5-8.5.

The latest templates and exemplars are available on the IQAC website at `http://iqac.aust.edu/obe/obe-resources-faculties/`.

5.2 New OBE-based Curricula for UGC

On 22 June 2020, the Director of IQAC received an email from Mr. Bishnu Mallick, who is the Deputy Director of the Strategic Planning & Quality Assurance (SPQA) Division of UGC, on "UGC approved Standard Outcome Based Education (OBE) Curriculum Template for universities". In his email, Mr. Mallick sent several documents, including "Template of OBE Curriculum" and "Template of OBE Course Outline". Now, several OBE related terminologies used in these templates are bit different from (e.g. Course Learning Outcome, Program Learning Outcome) what is prescribed by BAETE which was the target of the existing course outlines. Also, several items required for BAETE accreditation (e.g. "Mapping of Course Outcomes (COs) with Program Outcomes (POs) and Bloom's Taxonomy Level", "14. Mapping of COs with Knowledge Profiles, Complex Engineering Problem Solving and Complex Engineering Activities") are not mentioned in UGC's OBE related templates. The Director of IQAC discussed this matter with the concerned officer personally and it was mentioned that these templates should be used as a guide, however, if we can develop something better, we can adopt that. In March 2020, the Director of IQAC developed a template for preparing OBE-based curricula for the different programs of AUST (`http://iqac.aust.edu/wp-content/uploads/2021/06/NEW_OBE-Based_Curriculum_TEMPLATE_v2.docx`).

Constructive Alignment

In the present day OBE system, the teaching & learning (T&L) activities are assessments should be goal oriented. For effective T&L activities and assessments, the constructive alignment (6.1) should be followed. So, in the framework for the OBE system at AUST, it has been taken seriously as one of the critical elements. In fact, according to John Biggs it is “an example of outcome-based education (OBE)" (11) and “concerned only with improving teaching and learning" (11).

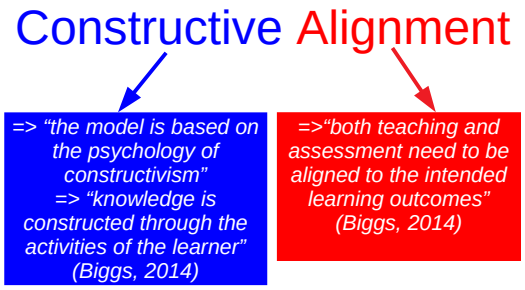

Figure 6.1: Constructive Alignment according to Biggs (10)

6.1 The Concept of Constructive Alignment

"*In constructive alignment, we start with the outcomes we intend students to learn, and align teaching and assessment to those outcomes*" (11)

The concept of constructive alignment is illustrated in Figure 6.2. According this concept, the intended learning outcomes (ILOs) should be aligned with (a) the T&L activities and (b) the assessment techniques for different knowledge, skills and attitudes required to attain the program outcomes (or graduate attributes) of an OBE system. According to Biggs - “If you write learning objectives and use them appropriately, your course will be in constructive alignment (Biggs, 1999) with lessons, class activities, assignments, and tests all pointing toward the same knowledge and skills" (16).

In the prescribed Course Specifiations template[1], the faculties are supposed to align the COs with the T&L activities and the assessment tasks. In the appendix section of the template, brief information has also been provided for awareness among the faculties about the process of Constructive Alignment.

6.1.1 The Four Major Steps

The four major steps in constructive alignment, according to (9), is depicted in Figure.

[1]available at `http://iqac.aust.edu/obe/obe-resources-faculties/`

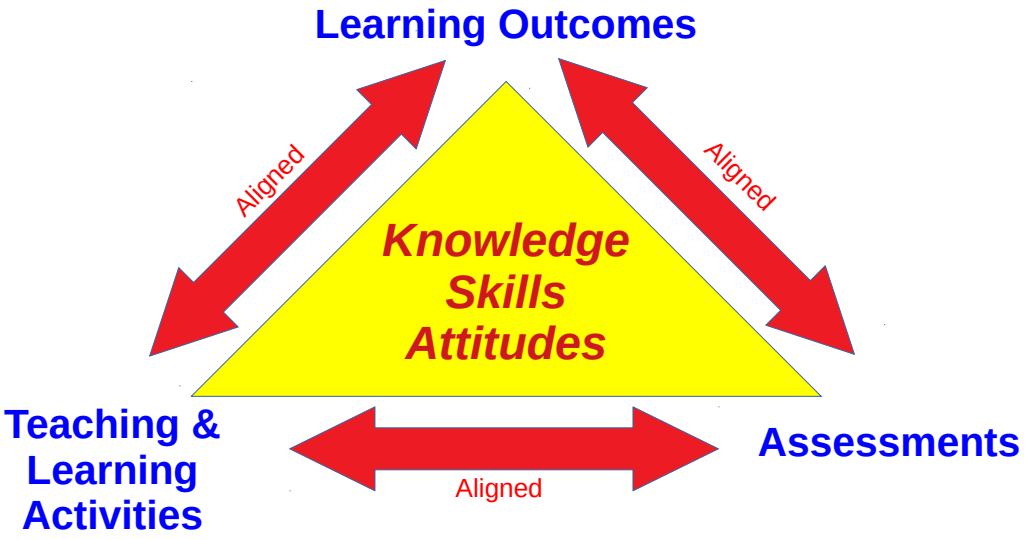

Figure 6.2: The Concept of Constructive Alignment

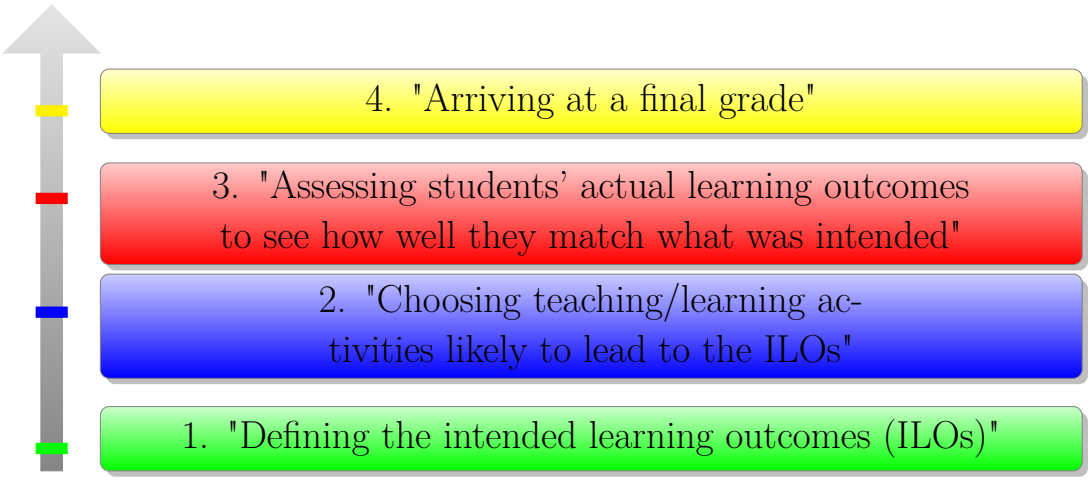

Figure 6.3: The Four Major Steps in Constructive Alignment (9)

6.2 The Bloom's Taxonomy

> "*Beginning in the 1950s, a team of educational researchers led by Benjamin Bloom of the University of Chicago sorted objectives into three domains—cognitive (intellectual outcomes including acquisition of knowledge, conceptual understanding, and thinking and problem-solving skills) (Bloom & Krathwohl, 1956); affective (emotional outcomes including development of interests, attitudes, and values)(Krathwohl et al., 1984); and psychomotor (motor skill outcomes including carrying out our laboratory and clinical procedures) (Simpson, 1972)*" (16, p. 30)

The Bloom's Taxonomy is a powerful tool which is used for constructive alignment as shown in Figure 6.4. It has three domains, as shown in Figure **??**, which can be mapped with knowledge, skills and attitudes in T&L activities and assessment techniques (illustrated in Figure 6.5). These three domains are discussed in the subsequent three headings.

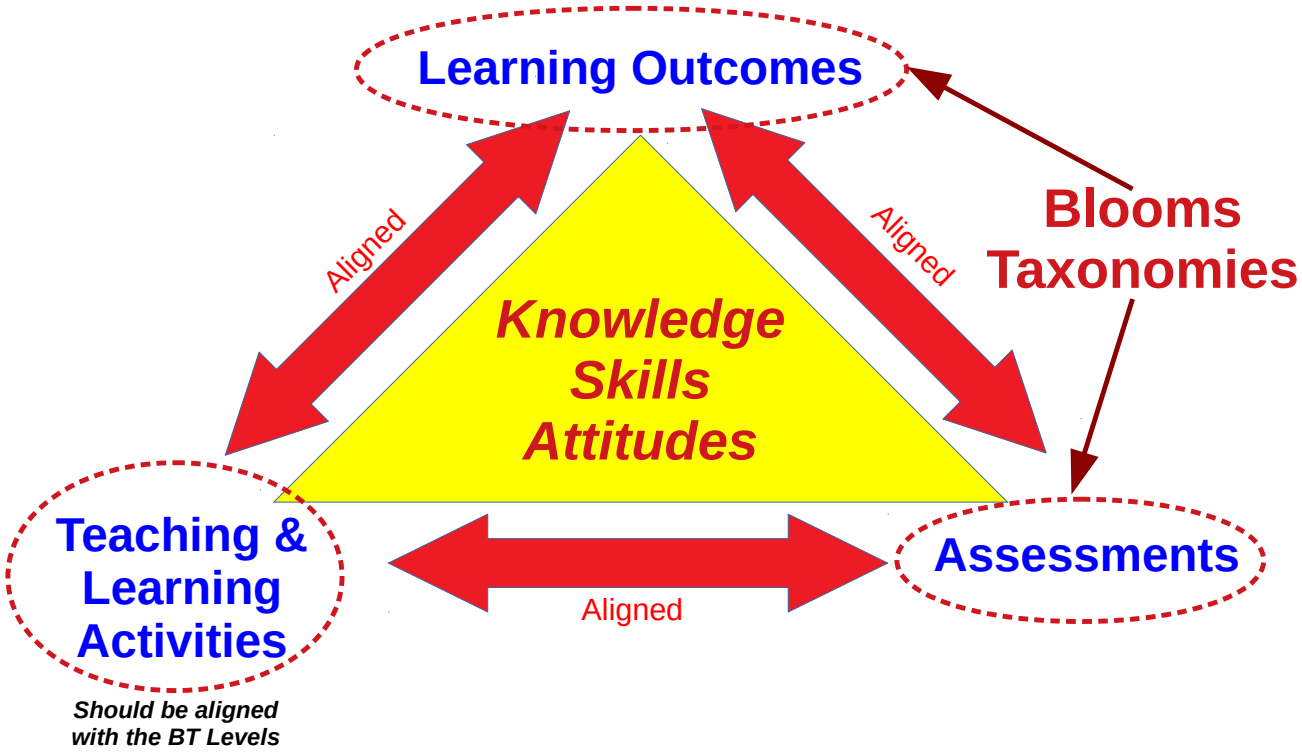

Figure 6.4: Role of the Bloom's Taxonomy in Constructive Alignment

Now, the POs for different COs should be assessed in the dominant domain of Bloom's Taxonomy. For the engineering programs of AUST, the assessment domains prescribed by Professor Lock (**?**), who is current the Deputy Chair of the Washington Accord, were suggested by the Director of IQAC as shown in the fifth column of Figure **??**.

6.2.1 The Cognitive Domain

> "*involved with thinking, knowledge, and the application of knowledge, it the domain of most interest to engineering educators*" (32)

The cognitive domain involves T&L and assessment activities related to brain. According to (16) this domain is related to "*intellectual outcomes including acquisition of knowledge, conceptual understanding, and thinking and problem-solving skills*" It has six levels which are shown in Figure . An excellent handout related to the cognitive domain can be found at (27).

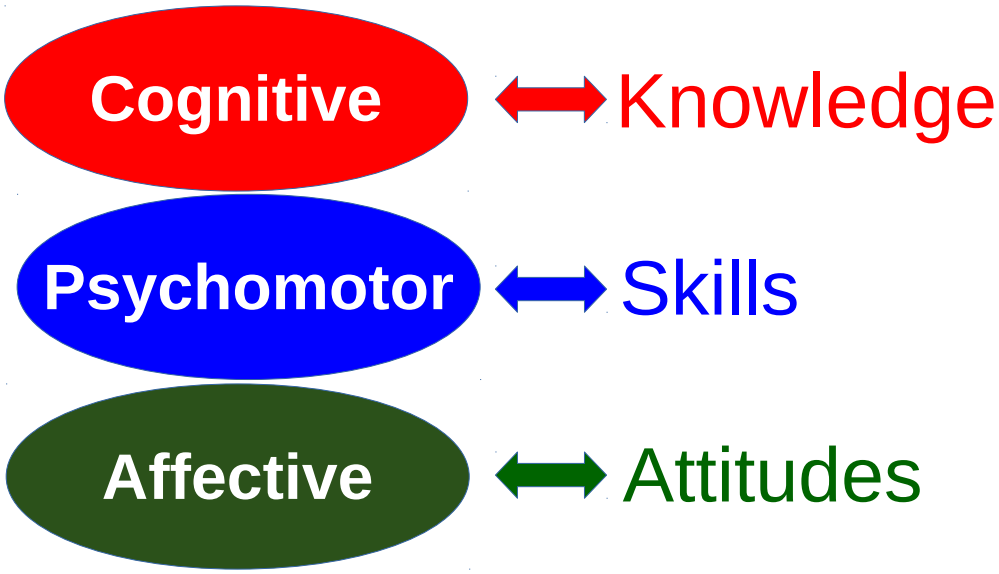

Figure 6.5: Mapping of Knowledge, Skills and Attitudes with the Three Domains of the Bloom's Taxonomy

Table 6.1: Mapping of the POs, Knowledge Profiles, CEP and CEA Ranges with the Domains of Bloom's Taxonomy

PO	Knowledge Profile	Range of Complex Engineering Problem Solving	Range of Complex Engineering Activities	Bloom's Taxonomy Domain [LOCK 2017]
PO1 - Engineering knowledge	K1 - K4	P1 - P7		C
PO2 - Problem analysis	K1 - K4	P1 - P7		C
PO3 - Design/development of solutions	K5	P1 - P7		C & A
PO4 – Investigation	K8	P1 - P7		C & P
PO5 - Modern tool usage	K6	P1 - P7		P & C
PO6 - The engineer and society	K7	P1 - P7		A
PO7 - Environment and sustainability	K7	P1 - P7		A & C
PO8 – Ethics	K7			A
PO9 - Individual work and teamwork				P & A
PO10 – Communication			A1 - A5	P & A
PO11 - Project management and finance				C & P
PO12 - Life-long learning				A & P

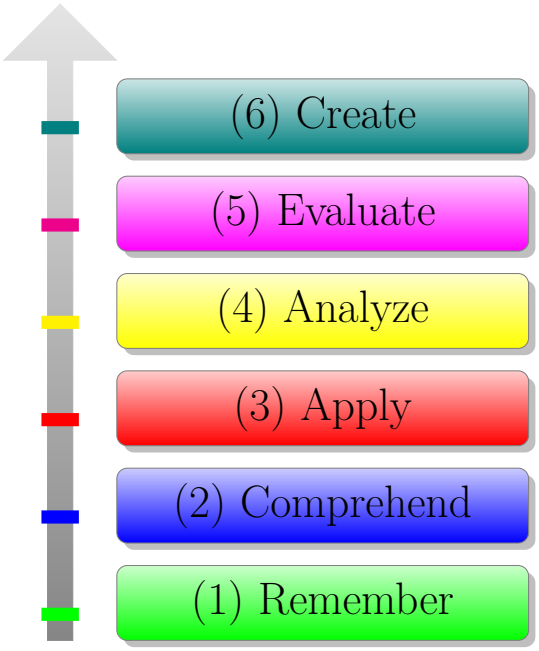

Figure 6.6: The Six Levels in the Cognitive Domain (2)

6.2.2 The Psychomotor Domain

> "*includes (Kibler et al., 1970)*
>
> 1. *Gross body movements.*
> 2. *Finely coordinated body movements.*
> 3. *Nonverbal communication behaviors.*
> 4. *Speech behaviors.*"(32)

According to (16) - "*motor skill outcomes including carrying out laboratory and clinical procedures*" . A useful handout related to the psychomotor domain can be found at (28).

6.2.3 The Affective Domain

> "*emotional outcomes including development of interests, attitudes, and values*" (16)

According to (32) - "*has had considerably less influence in education than cognitive domain taxonomy*". A handout related to the affective domain can be found at (26).

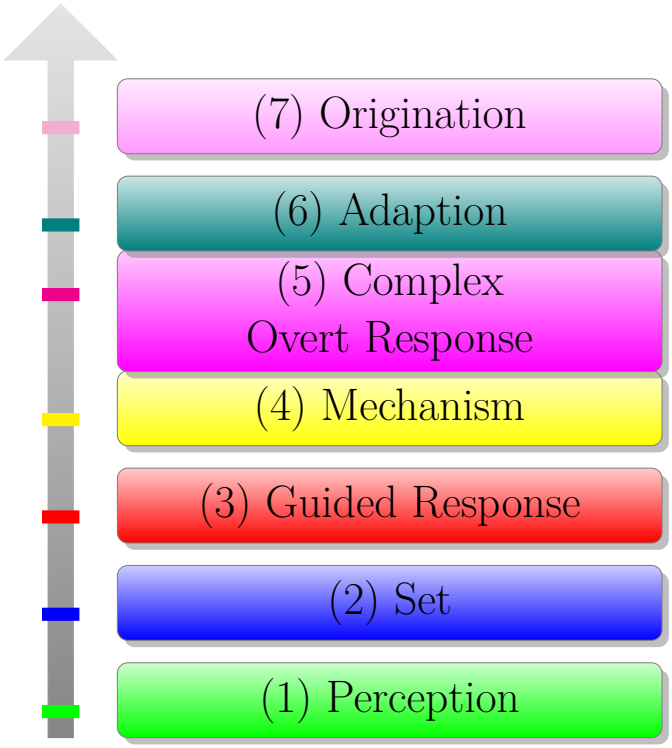

Figure 6.7: The Seven Levels of the Psychomotor Domain (`http://www.edpsycinteractive.org/topics/behavior/psymtr.html`)

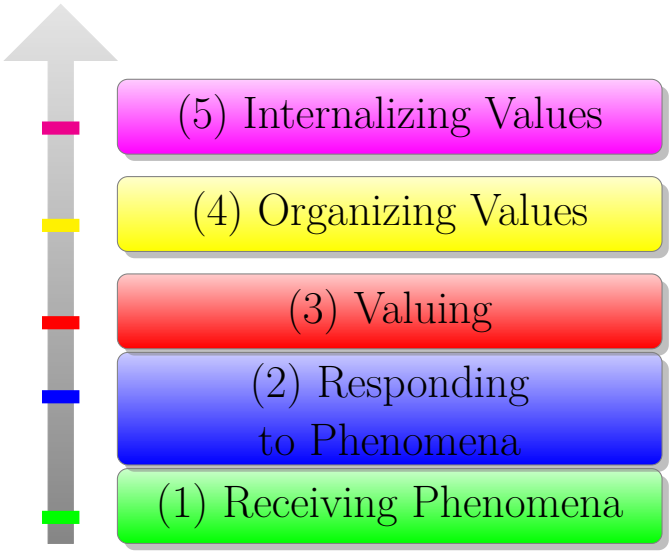

Figure 6.8: The Five Level of The Affective Domain (21)

6.3 ILO

> "*Focusing on what and how students are to learn, rather than on what topics the teacher is to teach, requires that an intended learning outcome, or ILO, specifies not only what is to be learned, the topic, but how it is to be learned and to what standard*" (12)

According to (12) - "*The intended outcomes specify the activity that students should engage if they are to achieve the intended outcomes as well as the content the the activity refer to*" (12). At course level, Course Outcomes (COs) should be defined in one of the domains of learning using appropriate action verbs.

6.4 T&L Activities

> *Highlight the interactive/non-traditional activities adopted in different courses, noting the course and the activity*" (7, 7-19)

Appropriate T&L methods, which are aligned with the ILO and the corresponding assessment tasks at the same domain and level of Bloom's Taxonomy, should be chosen by the faculties for constructive alignment. Non-conventional T&L activities should be adopted (which should be documented in the Course Specifications) and their effectiveness should be evaluated after the delivery in the Course Reports.

6.4.1 Student Learning Time (SLT)

SLT, item # 2 in the Course Specifications template, is an important concept which should be used by the faculties to design their course at the beginning of the semester, and they should incorporate active T&L activities as much as possible. According to (15, p. 12) - *defines that for every credit hour specified, students need to spend 40 hours of learning*" and "*This was determined by considering the total amount of time available in a week, the time needed for personal matters, the time for rest and recreational activities, and the time for studying*".

6.4.2 Teaching & Learning-related Resources

- "*Active Learning*" (16, pp. 111 to 129)
- "*Nontechnological Alternatives to Lecture*" (32, pp. 114 to 142)
- "*Teaching with Technology*" (32, pp. 143 to 167)
- "*Instructional Techniques, Purpose and Examples*" (1, p. 79)
- "Teaching and Learning Activities" (13, p. 52 to 56)
- "*Lectures*" (32, pp. 89 to 113)
- Brainstorming (1, p. 71)
- Buzz Groups (Small Groups) (1, pp. 71 to 72)
- Think-Pair-Share (1, p. 69)
- Case Study (1, p. 72)

- Demonstration and Practice (1, pp. 73 to 74)
- Field Trip (1, p. 74)
- Group Discussion (1, p. 75)

6.5 Assessments

In OBE sytems, faculties should select appropriate assessment tasks that are aligned with the ILO and the corresponding T&L activities at the same domain and level of Bloom's Taxonomy for constructive alignment. Special attention should be made for the assessment tasks related to Psychomotor and Affective domains.

6.5.1 Assessment-related Resources

- "*Student Assessment*" (13, pp. 38 to 51)
- "*Testing, Homework, and Grading*" (32, pp. 213 to 234)
- "*8.1.1 Multiple-Choice questions*" (16, pp. 156 to 159)
- "*8.1.2 Short-answer questions*" (16, pp. 159 to 160)
- "*Evaluating Reports and Presentations*" (16, pp. 175 to 182)
- "*Some Non-formal Methods of Assessing Learning*" (1, p. 83)
- "*One-Minute Paper (Half-sheet Response)*" (1, p. 84)
- "*Obtaining Feedback from Learners*" (1, p. 86)

6.5.2 Assessment Blueprint

Assessment Blueprint is a useful tool for course design (13, p. 50). In the Course Specifications template, the faculties are supposed to plan all the assessment activities for different COs at the beginning of the semester. They should distribute the marks for the questions judiciously, so that all the students are assessed in all the COs irrespective of their choice of questions. According to (13, p. 47) - "*This will help you to keep you on track in terms of the level of understanding for the various topic areas, and the amount of course time you devote to particular topics*"

6.6 The Guideline for Online Teaching and Learning in OBE Perspective

During the closure due to the COVID-19 Pandemic, AUST faculties started to deliver their courses online. On 12 May 2020, "AUST Guideline for Online Teaching and Learning" was released for the public[2]. It can be downloaded from `http://www1.aust.edu/news/aust_guideline_for_online_teaching_and_learning.htm`. An attempt was made in this report to encourage the AUST faculties to consider constructive alignment as highlighted below.

[2]URL: `https://www.aust.edu/news?page=2`

"*(A.14) The AUST faculties will enforce Outcome-based Education (OBE) in their online courses through Constructive Alignment as discussed in Appendix-2*"(4)
"*(A.20) All the AUST Faculties are encouraged to encouraged to design their non-graded formative online T&L assessments for each course outcome in accordance to a framework presented in Section 8 of Appendix-3*"(4)

Four CQI Loops

CQI is extremely important for any OBE system and it should be taken seriously by all the stakeholders in the higher education system. Four CQI loops have been designed for the engineering programs at AUST and they are discussed in Sections **??-??**.

7.1 The Stakeholders

In the CQI loops, design for the programs at AUST, different stakeholders have been considered for continuous improvements of the quality of the curriculum, CO attainments, PO attainments, and PEO attainments as indicated in Table . The stakeholders considered in the four CQI loops are:

- The Students
- The Faculties/Instructors
- The UGC
- The BAETE
- The Alumni
- The IAP
- The External Reviewers, mainly from the academia, for the Curricula
- The Employers

7.2 The Four CQI Loops

The four CQI loops in the OBE Framework of the AUST are shown in Figures 8.1-8.5. It should be emphasized that Course Specifications (which should be prepared at the beginning of the semester as illustrated in Figure 9.1) and Course Reports (which should be prepared after all the assessment activities at the end of the semester as illustrated in Figure 9.1) are playing critical roles in establishing the CQI-loops for CO attainments, PO attainments, and PEO attainments. The designed methods for direct and indirect measurements of COs, POs, and PEOs attainments are listed in 7.2.

Table 7.1: The Role of Stakeholders in the CQI Loops

The Stakeholders	CQI Loop for the Curriculum	CQI Loop for the COs	CQI Loop for the POs	CQI Loop for the PEOs
The Students		√	√	
The Faculties	√			
The UGC	√			
The BAETE	√	√		
The Alumni		√	√	√
The Industry		√	√	√
The Academia	√			
The Employers			√	√

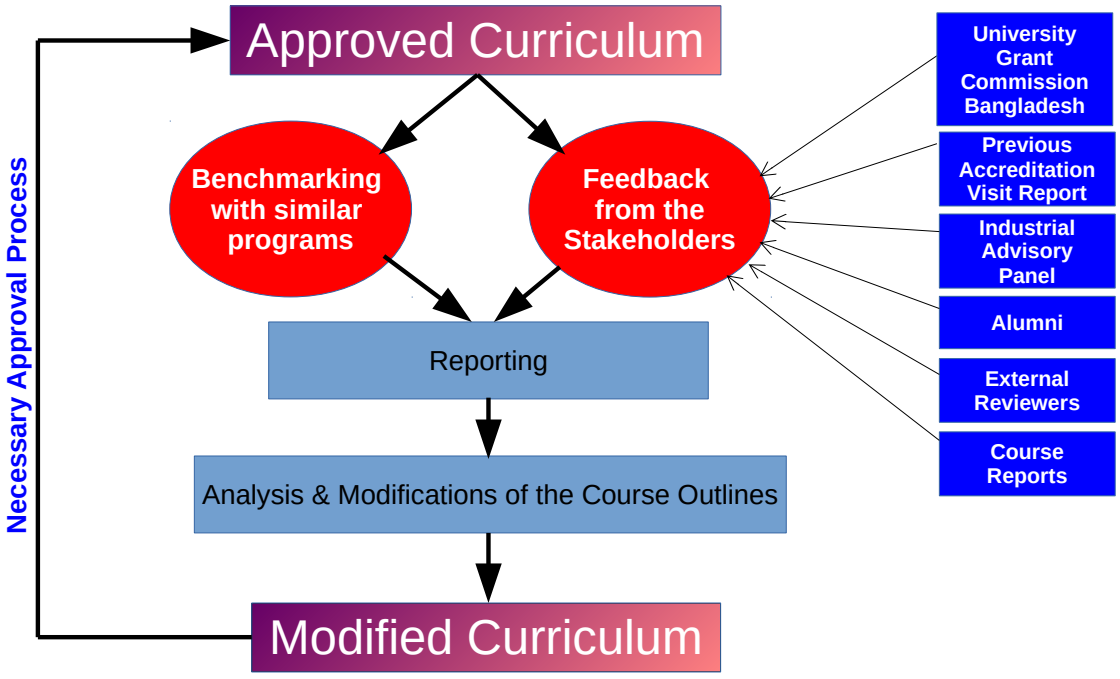

Figure 7.1: The CQI-loop for the Curriculum

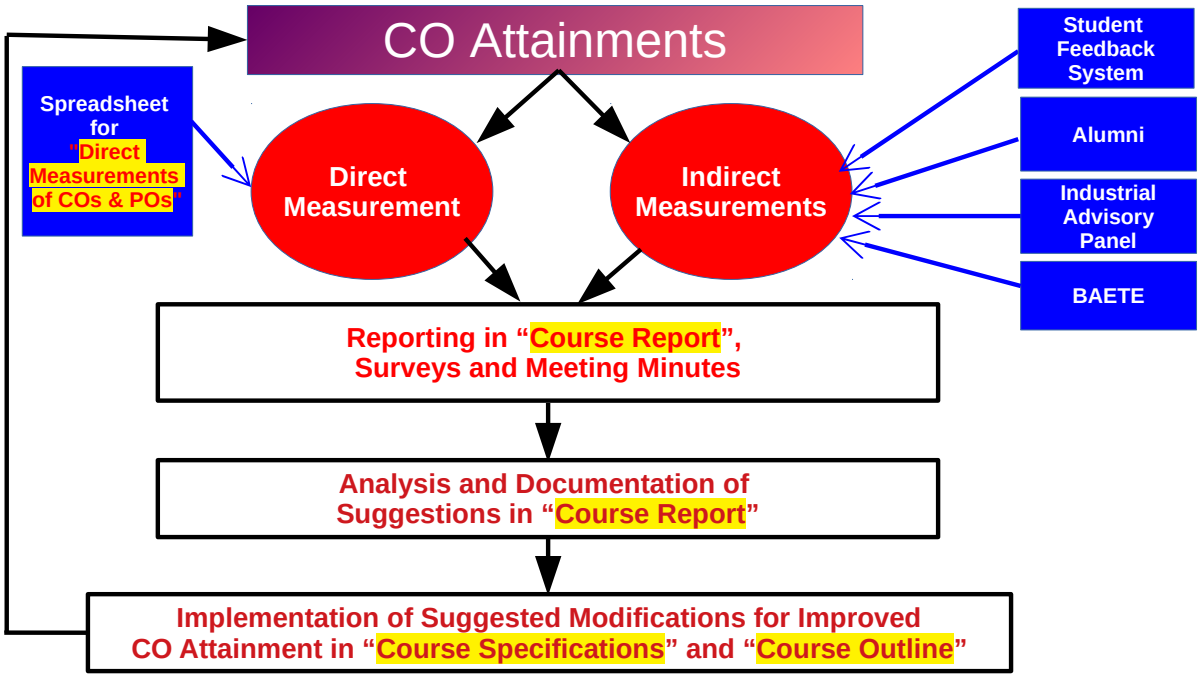

Figure 7.2: The CQI-loop for the Course Outcomes

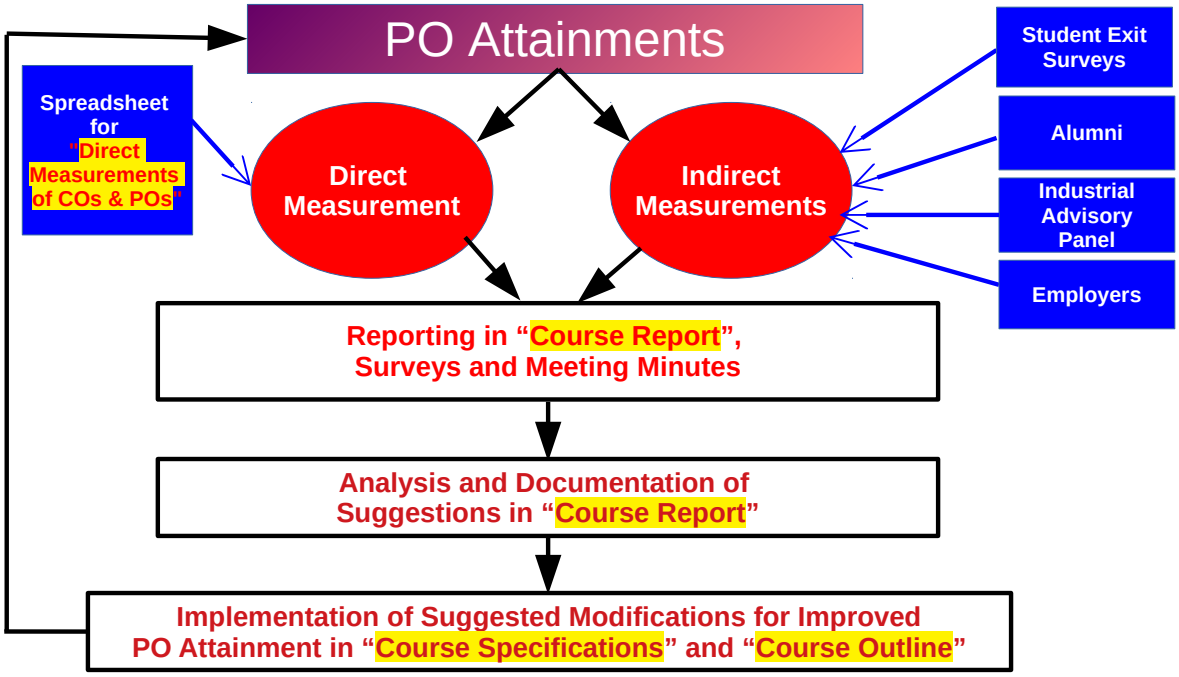

Figure 7.3: The CQI-loop for the Program Outcomes

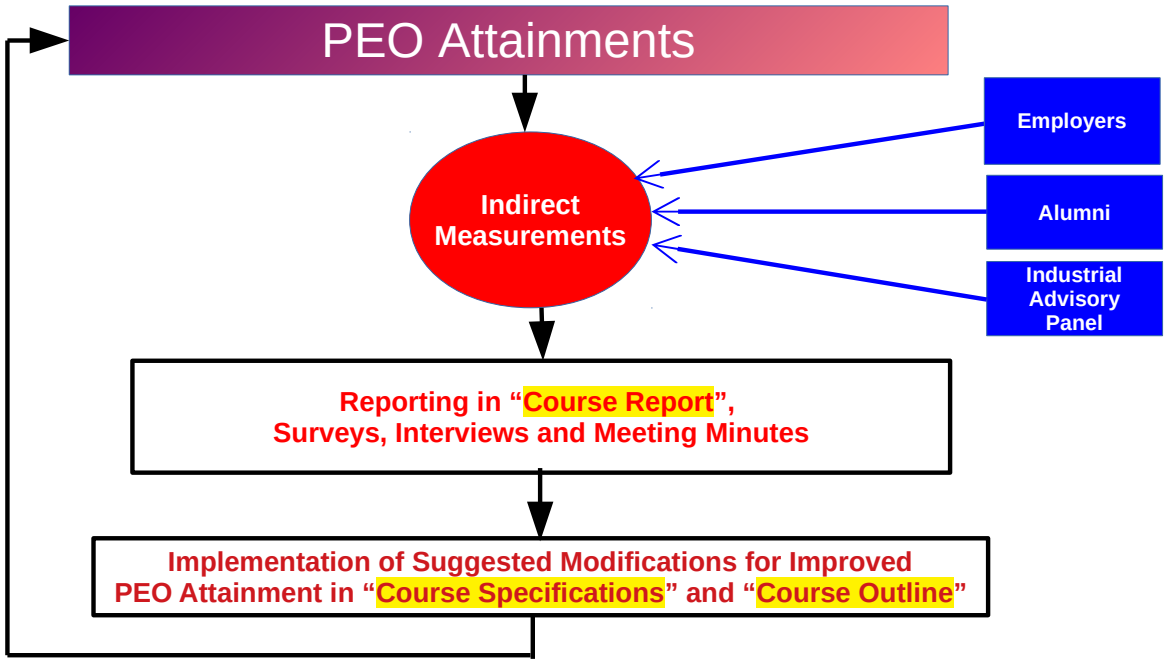

Figure 7.4: The CQI-loop for the Program Educational Objectives

Table 7.2: Direct and Indirect Measurements in the CQI Loops

CQI Loop	Direct Measurements	Indirect Measurements
CO Attainments	- "Direct Measurements of COs & POs" Spreadsheet	- Student Feedback System (Qualitative assessment from comments, Quantitative assessment from Likert Scale questions about the CO attainments) - Alumni (Qualitative assessment from comments from surveys and meetings) - IAP (Qualitative assessment from comments regarding the curricula) - BAETE (Qualitative assessment from comments regarding the curricula during the accreditation phase)
PO Attainments	- "Direct Measurements of COs & POs" Spreadsheet	- Student Exit Survey (Qualitative assessment from comments, Quantitative assessment from Likert Scale questions about the PO & Knowledge Profile attainments) - Alumni Survey (Quantitative assessment from Likert Scale questions about the PO attainments) - IAP Survey (Quantitative assessment from Likert Scale questions about the PO attainments based on the existing curricula) - Employer Survey (Quantitative assessment from Likert Scale questions about the PO attainments based on the performance of the AUST Alumni)
PEO Attainments		- Employer Survey (Quantitative assessment from Likert Scale questions about the PEO attainments based on the performance of the AUST Alumni) - Alumni Survey (Quantitative assessment from Likert Scale questions about the PEO attainments) - IAP Survey (Quantitative assessment from Likert Scale questions about the PEO attainments based on the existing curricula)

The Major OBE-related Tasks for the Individual Faculties

To implement OBE in the six engineering programs, the following documents have been finalized and distributed among different programs of AUST mainly to fulfill the requirements of BAETE:

1. Course Outline
2. Course Specifications
3. Final Examination Vetting Form
4. CO-PO Direct Measurements
5. Course Report

For implementation of OBE for different courses, each faculty members have 10 OBE-related tasks for each course as shown in Figure 9.1. On 15 June, 2021 an official Notice (Appendix-F) was issued by the Registrar of AUST, by the order of the Vice-Chancellor, regarding these 10 tasks for individual faculty members. According to this Notice - "*the Faculty Members of the Architecture and Planning and Engineering Faculty, AUST are hereby requested to follow the OBE-related tasks (10-tasks) for smooth implementation of OBE (as mentioned in the infographics: copy attached)*"

8.1 Course Outline

Preparation of Course Outlines is essential for OBE-based curricula. It is also required for preparing OBE-based curriculum required by the UGC (UGC). It should be noted that Course Outlines are required for establishing the CQI loop for Curriculum (7, Criterion 9, p. 7-26) as depicted in Figure .

The prescribed template for the Course Outline is available at `http://iqac.aust.edu/obe/obe-resources-faculties/`. It is a good practice to share the approved Course Outline with the students before the first day of the class, and it should be discussed thoroughly on the very first class session.

8.2 Course Specifications

Course Specifications (CS) is used for designing a course at the beginning of the semester. A "Course Specifications Form" has been suggested by UGC (30, pp. 52-54), and they have also suggested "Guidelines for Compiling A Course Specification" (30, pp. 66-67). As mentioned in Chapter 7, CSs are required for establishing the CQI loops (7, Criterion 9, pp. 7-24 to 7-26) for the attainments of COs (Figure , POs (Figure), and PEOs (Figure). The prescribe Course Specifications template for the AUST faculties, available at `http://iqac.aust.edu/obe/obe-resources-faculties/`, has incorporated some of the critical elements for implementing OBE:

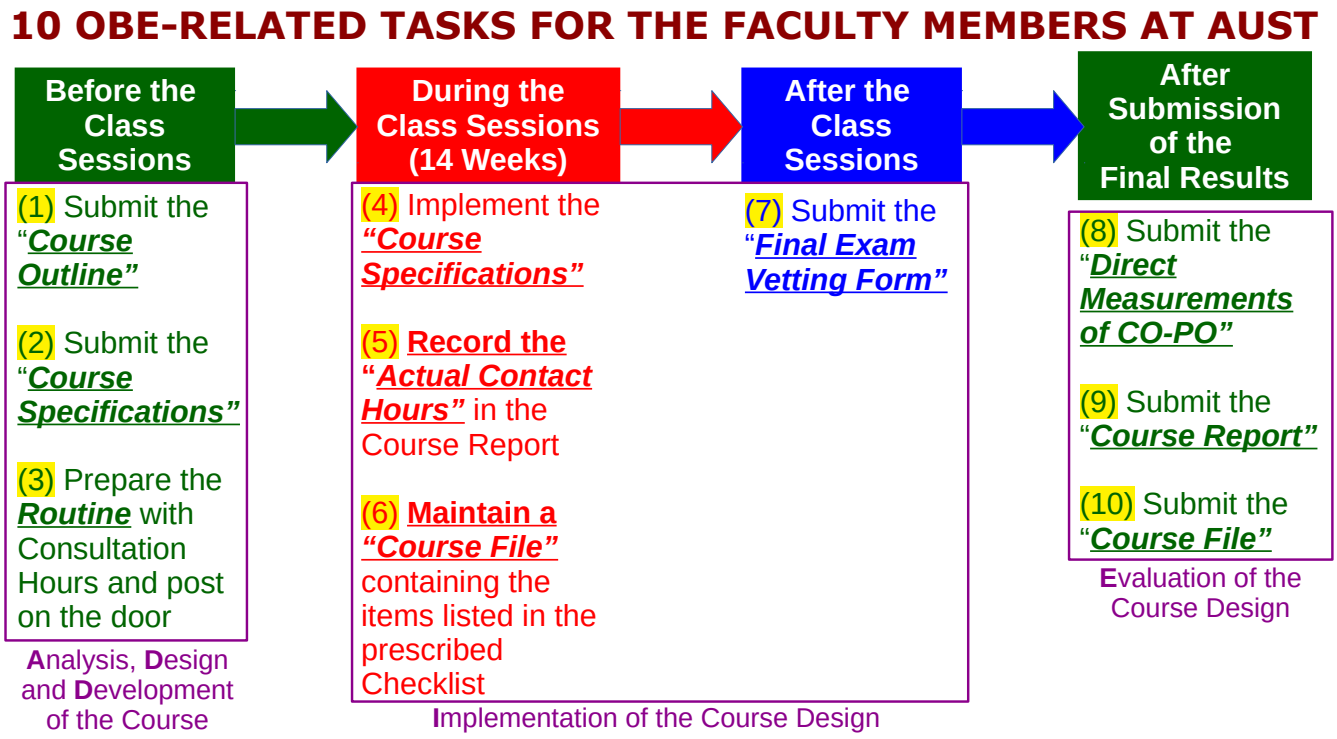

Figure 8.1: The Ten OBE-related Tasks for the Individual Faculties during the Fourteen Weeks in a Semester

- 2. Student Learning Time (SLT)
- 3. Constructive Alignment
- 4. Teaching & Learning Activities
  - 4.1. Planned Contact Hours for Different Topics
- 5. Assessments
  - 5.1. Assessment Blueprint
- 6. Continuous Quality Improvement (CQI) Measures
  - 6.1 Recommendations from the Previous Course Report (if any)
  - 6.2 Any Other Modification (if any)

8.3 Final Exam Vetting Form

The vetting of the Final Exam questions is quite critical for constructive alignment (7, pp. 7-18 to 7-19). The prescribed "FINAL EXAMINATION VETTING FORM" template for the AUST faculties is available at `http://iqac.aust.edu/obe/obe-resources-faculties/`.

8.4 Direct Measurements of CO-PO

The direct measurement of COs and POs is very important in the OBE system at AUST. The prescribed "Direct Measurements of COs & POs" template for the AUST faculties is available at `http://iqac.aust.edu/obe/obe-resources-faculties/`.

8.5 Course Report

Course Report file should be prepared by each faculty member after completing the assessment related tasks. It should be noted that "Guidelines for Writing Course Reports" was suggested by UGC (30, pp. 63-65). Also, according to (7, Section 4.9) - "*The concerned course instructor should prepare course review reports including CQI files for the courses he/she is teaching*". Like the Course Specifications, Course Reports are required for establishing the CQI loops (7, Criterion 9, pp. 7-24 to 7-26) for the attainments of COs (Figure , POs (Figure), and PEOs (Figure). The prescribe Course Report template for the AUST faculties, available at `http://iqac.aust.edu/obe/obe-resources-faculties/`, has incorporated some of the critical elements for implementing OBE:

- 2. Learning Outcomes
- 3. Teaching & Learning Activities
  - 3.1. Analysis of Contact Hours for Different Topics
  - 3.2. Analysis of Teaching & Learning Activities
  - 3.3. Analysis of the Resources
- 4. Direct Assessments
  - 4.1. Grade Distributions from IUMS
  - 4.2. Analysis of Course Outcomes
  - 4.3. Analysis of Program Outcomes
- 5. Indirect Assessments
  - 5.1. Analysis of Student Feedback (if any)
  - 5.2. Analysis of surveys/meeting minutes/reports related to the course (if any)
- 6. Continuous Quality Improvement (CQI) Loops
  - 6.1. Suggested Action Plans to Improve the Course in the Future

8.6 Course Files

According to the OFFICE ORDER, dated 7 March 2021 (Appendix-A) - "***All the teachers are requested to prepare and update the course files and help update the SAR required for accreditation purposes***". So, departmental heads should pay special attention in this regard. The updated "COURSE FILE CHECKLIST" is available at `http://iqac.aust.edu/obe/obe-resources-faculties`.

8.6.1 Rationale for a "Course File"

- Item 6.1.6 of "Self-Assessment Report Format" (7, pp. 7-18 to 7-19)
- Contents should enable the Evaluation Team to assess the efficacy of OBE implementation
- Newly developed based on (22)

8.6.2 The Checklist for the Course File

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

The OBE-related Tasks at the Program Level

9.1 The Major OBE-related Tasks for the OBE Program Coordinators

The OBE Program Coordinators have been playing a critical role in implementing OBE at AUST. They are the members of the Central Committee for implementing OBE (Appendix-A). For implementation of OBE for different courses, each faculty members have 13 routine OBE-related tasks in every semester as shown in Figure 9.1.

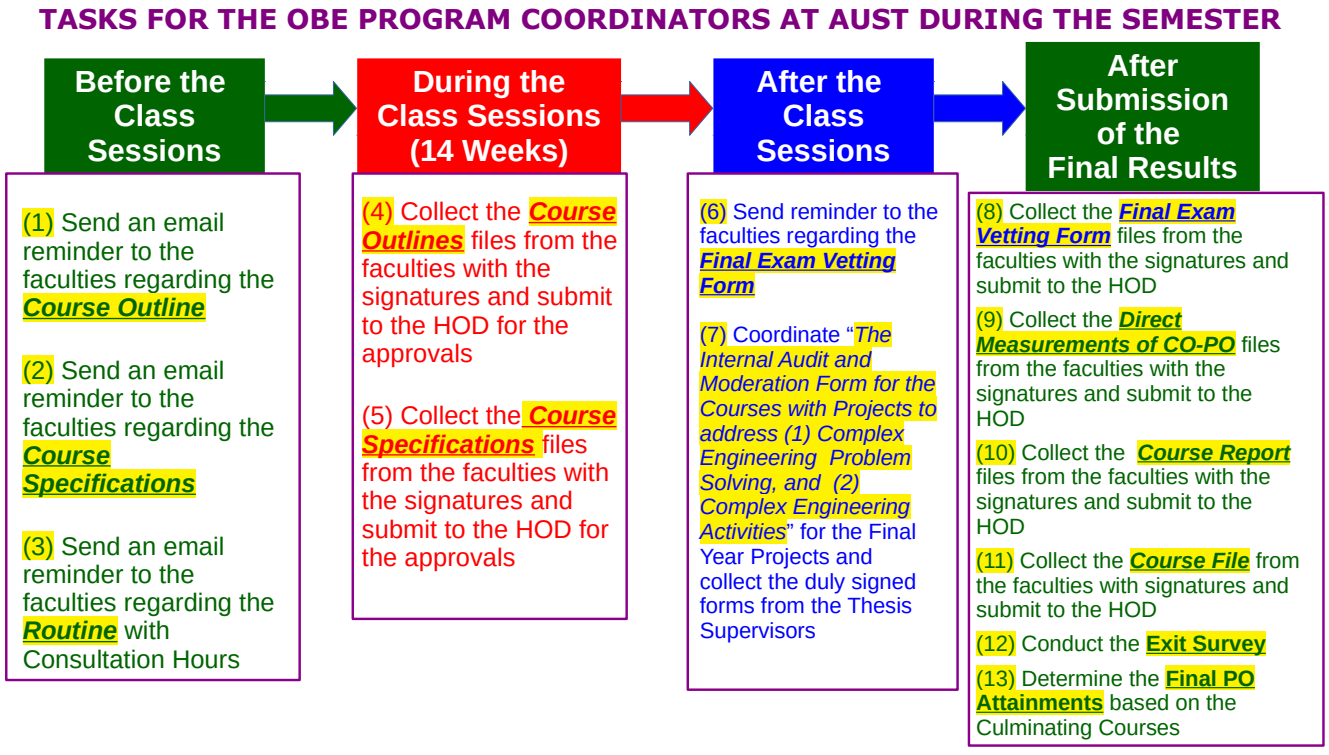

Figure 9.1: The OBE-related Tasks for the OBE Program Coordinators during the Semester

9.2 The Main Responsibilities of the OBE Committees

The departmental OBE Committees play an important role in the OBE framework. The major tasks of the departmental OBE committees are:

1. Implement the CQIs for the Curriculum, COs, POs, and PEOs at the program level
2. Conduct the vetting of the Final Exam questions

3. Moderate the CEP & CEA for the Final Year Projects
4. Invite examiners for the Final Year Projects from the Industry
5. Conduct training activities for the students and faculties
6. Conduct Surveys among the Stakeholders
7. Conduct Meetings with the Stakeholders
8. Analyze the outcomes from the surveys and meetings to measure the PEOs, POs, and COs indirectly
9. Archive the Course Files for the Accreditation visits
10. Prepare the Self Assessment Report for the BAETE Accreditation of the program
11. Arrange Accreditation Visits
12. Prepare Improvement Plans based on the outcomes of the accreditation visits
13. Implement the Improvement Plans

The Way Forward

After the Second BAETE Symposium, held during 26-27 Augsut 2020 (`https://baetebangladesh.org/symposium2/`), a webinar was arranged by the Director of IQAC on "Reflections from BAETE's Second Symposium and the Way Forward for the AUST Engineering Programs" on October 7, 2020. Professor Mazhar suggested the following points regarding the way forward for the AUST Engineering Programs:

- Implementation of OBE-based Curricula
- Effective Quality Assurance Mechanisms
- Enhanced Training Activities
- Massive Engagements with the Industries
- Promotion of Research Activities
- Implementation of an OBE Platform

These points are briefly discussed in the present context in the following sections.

10.1 Implementation of OBE-based Curricula

Currently, two engineering programs, namely EEE and TE, have already submitted their OBE-based curricula to the UGC. The other programs are in the process of finalizing their OBE-based curricula. It should be emphasized that all the engineering programs should incorporate the following in their OBE-based curricula:

- Complex Engineering Problem Solving in all the design related courses
- Complex Engineering Activities in all the design related courses
- Final Year Design Project/Capstone Design Project for the fourth year students considering all the twelve POs

10.2 Effective Quality Assurance Mechanisms

According to (3, Slide 12) - *Quality assurance enables an organization (or education program in the accreditation context) to achieve its purpose*". All the programs should:

- establish functional Continuous Quality Improvement (CQI) Mechanisms at program levels
- implement Program Outcome Indicators (POIs)[1] for enhanced mappings between the COs with the POs

[1] "*different abilities (breakdown) specified in a single outcome that would generally require different assessment measures*" (5, pp. 15-17)

10.3 Enhanced Training Activities

Imparting training activities (seminars & hands-on workshops) is extremely critical for successful implementation of OBE. The following training activities are suggested for the upcoming months.

- Training Programs for the New Faculty Members with more emphasis on Constructive Alignment
- Departmental Hands-on Workshops on Complex-Engineering Problem Solving
- Departmental Hands-on Workshops on Complex-Engineering Activities
- Seminars on
  - Constructive Alignment
  - Assessments with Rubrics
  - Sustainable Development Goals (SDGs)

10.4 Massive Engagements with the Industries

The role of the industry is very important for any program in their CQI loops for the Curriculum, POs and PEOs. All the programs of AUST should:

- Form Industrial Advisory Panel (IAP)
- Arrange Industrial Training programs/Internships
- Arrange frequent Industrial Tours
- Invite evaluators of the Final Year Projects from the Industries
- Conduct surveys among the IAP members for indirect measurement of POs & PEOs
- Conduct meetings with the IAP members for obtaining feedback for the curricula

10.5 Promotion of Research Activities

Research activities are important for the professional development of the faculty members of AUST. The Director of IQAC has the following suggestions to promote research activities at AUST.

- Hiring of Research Assistants (RAs) in the Graduate Programs
- Incentives for Good-Quality Publications
- Establish internal research funds
- Promote Mixed-Mode research and development on indirect measurements of POs & PEOs

10.6 Implementation of an OBE Platform

Currently, the AUST faculties are using excel-based spreadsheet, which was prepared by the Director of the IQAC in the past, for the direct measurement of COs & POs for different subjects. This can be considered as a short-term solution. In the long run, a server-based OBE Software, with a user-friendly GUI, should be developed for:

- the direct measurement of COs & POs
- the entry of data required for the Course Specifications, Final Exam Vetting Forms, and Course Reports
- incorporation of POIs
- continuous monitoring of students' attainment of POs during their academic life

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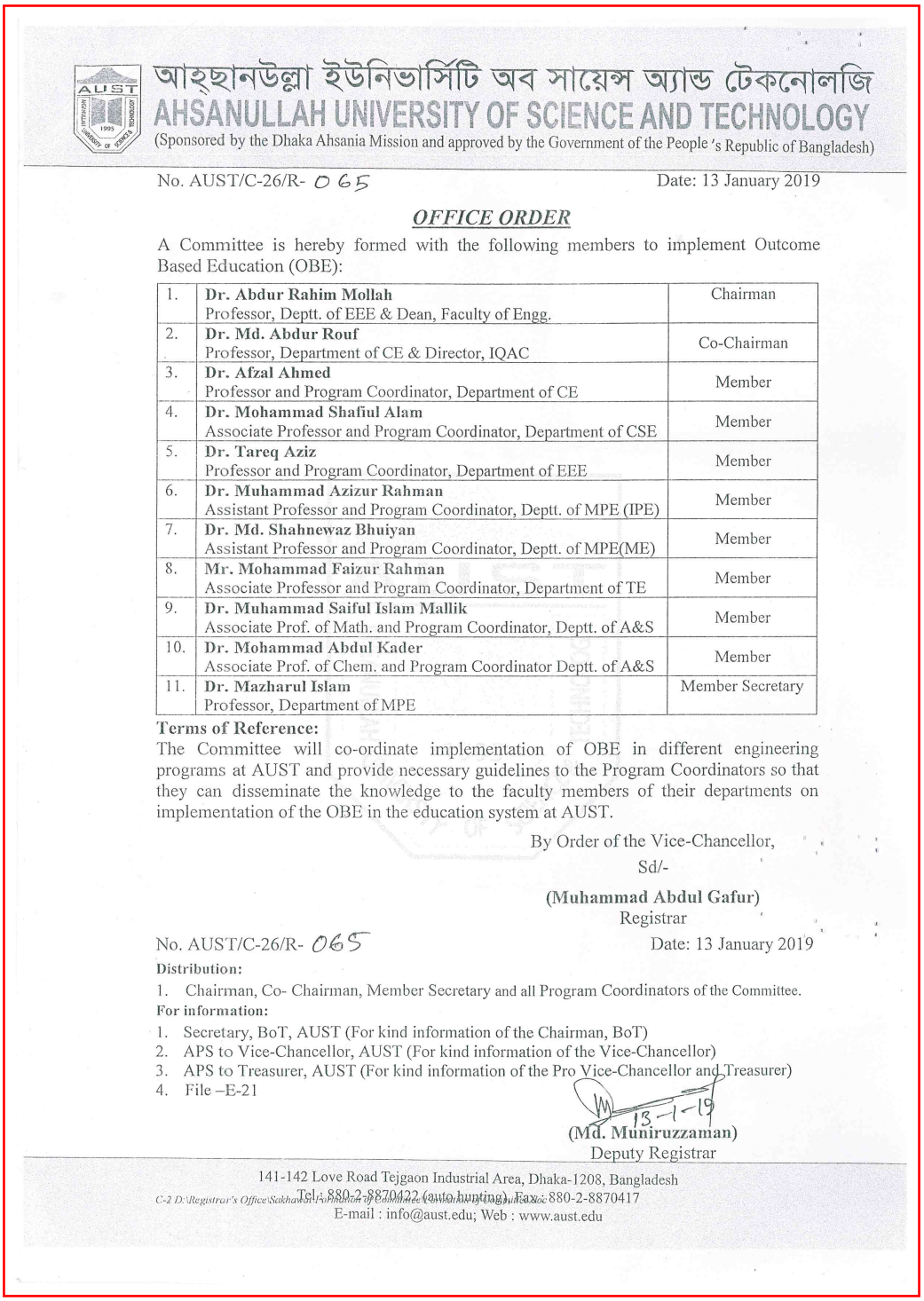
Appendices

Appendix A: Office Orders regarding the Central Committee for Implementing OBE at AUST



আহ্ছানউল্লা ইউনিভার্সিটি অব সায়েন্স অ্যান্ড টেকনোলজি
AHSANULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
(Sponsored by the Dhaka Ahsania Mission and approved by the Government of the People 's Republic of Bangladesh)

No. AUST/C-26/R- 065 Date: 13 January 2019

OFFICE ORDER

A Committee is hereby formed with the following members to implement Outcome Based Education (OBE):

1.	**Dr. Abdur Rahim Mollah** Professor, Deptt. of EEE & Dean, Faculty of Engg.	Chairman
2.	**Dr. Md. Abdur Rouf** Professor, Department of CE & Director, IQAC	Co-Chairman
3.	**Dr. Afzal Ahmed** Professor and Program Coordinator, Department of CE	Member
4.	**Dr. Mohammad Shafiul Alam** Associate Professor and Program Coordinator, Department of CSE	Member
5.	**Dr. Tareq Aziz** Professor and Program Coordinator, Department of EEE	Member
6.	**Dr. Muhammad Azizur Rahman** Assistant Professor and Program Coordinator, Deptt. of MPE (IPE)	Member
7.	**Dr. Md. Shahnewaz Bhuiyan** Assistant Professor and Program Coordinator, Deptt. of MPE(ME)	Member
8.	**Mr. Mohammad Faizur Rahman** Associate Professor and Program Coordinator, Department of TE	Member
9.	**Dr. Muhammad Saiful Islam Mallik** Associate Prof. of Math. and Program Coordinator, Deptt. of A&S	Member
10.	**Dr. Mohammad Abdul Kader** Associate Prof. of Chem. and Program Coordinator Deptt. of A&S	Member
11.	**Dr. Mazharul Islam** Professor, Department of MPE	Member Secretary

Terms of Reference:
The Committee will co-ordinate implementation of OBE in different engineering programs at AUST and provide necessary guidelines to the Program Coordinators so that they can disseminate the knowledge to the faculty members of their departments on implementation of the OBE in the education system at AUST.

By Order of the Vice-Chancellor,
Sd/-
(Muhammad Abdul Gafur)
Registrar

No. AUST/C-26/R- 065 Date: 13 January 2019

Distribution:
1. Chairman, Co- Chairman, Member Secretary and all Program Coordinators of the Committee.

For information:
1. Secretary, BoT, AUST (For kind information of the Chairman, BoT)
2. APS to Vice-Chancellor, AUST (For kind information of the Vice-Chancellor)
3. APS to Treasurer, AUST (For kind information of the Pro Vice-Chancellor and Treasurer)
4. File –E-21

13-1-19
(Md. Muniruzzaman)
Deputy Registrar

141-142 Love Road Tejgaon Industrial Area, Dhaka-1208, Bangladesh
Tel : 880-2-8870422 (auto hunting), Fax : 880-2-8870417
C-2 D:\Registrar's Office\Sakhawat\Formation of Committee (Curriculum, Engineering).doc
E-mail : info@aust.edu; Web : www.aust.edu

আহ্ছানউল্লা ইউনিভার্সিটি অব সায়েন্স অ্যান্ড টেকনোলজি
AHSANULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
(Sponsored by the Dhaka Ahsania Mission and approved by the Government of the People 's Republic of Bangladesh)

No. AUST/C-26/R-280 Date: 09 February 2020

OFFICE ORDER

In reference to this Office Order No. AUST/C-26/R-065 dated 13 January 2019, the Vice-Chancellor has been pleased to constitute the following modified Central Committee for Outcome Based Education (OBE) of the University:

1	Dr. Abdur Rahim Mollah, Dean, Faculty of Engineering & Professor, Department of Electrical & Electronics Engineering, AUST	Chairman
2	Dr. Mazharul Islam, Professor, Department of Mechanical and Production Engineering & Director IQAC, AUST	Co-Chairman
3	Dr. Mohammad Shafiul Alam, Professor, Department of Computer Science & Engineering & OBE Program Coordinator, AUST	Member
4	Dr. Muhammad Saiful Islam Mallik, Professor, Department of Arts & Sciences & OBE Program Coordinator 1, AUST	Member
5	Dr. Mohammad Abdul Kader, Professor, Department of Arts & Sciences & OBE Program Coordinator -2, AUST	Member
6	Mr. Mohammad FaizurRahman, Associate Professor, Department of Textile Engineering & OBE Program Coordinator, AUST	Member
7	Md. Minhajul Islam Khan Shuhan, Assistant Professor, Department of Civil Engineering & OBE Program Coordinator, AUST	Member
8	Dr. Md. RejaulHaque, Assistant Professor, Department of Mechanical and Production Engineering & OBE Program Coordinator (ME), AUST	Member
9	Mr. Nafi Ahmed, Lecturer, Department of Mechanical and Production Engineering & OBE Program Coordinator (IPE), AUST	Member
10	Dr. Bobby Barua, Associate Professor, Department of Electrical and Electronics Engineering & OBE Program Coordinator, AUST	Member Secretary

Terms of Reference:
The Committee will co-ordinate implementation of OBE in different engineering programs at AUST and provide necessary guidelines to the Program Coordinators so that they can disseminate the knowledge to the faculty members of their departments on implementation of the OBE in the education system at AUST.

All the teachers are requested to prepare and update the course files and help update the SAR.

By Order of the Vice-Chancellor,

Sd/-
(Muhammad Abdul Gafur)
Registrar

Copy for information and necessary action to:
1. Chairman, co-chairman and all Members of the Central Committee, AUST
2. All Deans of the Faculties, AUST
3. All Heads of the Departments/School/Offices, AUST
4. Secretary, BoT, AUST
5. APS to Vice-Chancellor, AUST (For kind information of the Vice-Chancellor)
6. APS to Treasurer, AUST (For kind information of the Treasurer)

9-2-20
(Md. Muniruzzman)
Deputy Registrar

141-142 Love Road Tejgaon Industrial Area, Dhaka-1208, Bangladesh
Tel.: 880-2-8870422 (auto hunting), Fax : 880-2-8870417
E-mail : info@aust.edu; Web : www.aust.edu

C-26

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AHSANULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

(Sponsored by the Dhaka Ahsania Mission and approved by the Government of the People 's Republic of Bangladesh)

No. AUST/C-26/R-432 Date: 07 March 2021

OFFICE ORDER

The Vice- Chancellor has been pleased to reconstitute the following Central Committee for Outcome Based Education (OBE) implementation at AUST. This replaces the Central Committee for OBE as notified earlier vide AUST/C-26/R-280 dated 09 February 2020:

1	Dr. S. M. Abdullah Al-Mamun, Dean, Faculty of Engineering & Professor, Department of Computer Engineering, AUST	Chairman
2	Dr. Mazharul Islam, Professor, Department of Mechanical and Production Engineering & Director IQAC, AUST	Co-Chairman
3	Mr. Mohammad Faizur Rahman, Associate Professor, Department of Textile Engineering & OBE Program Coordinator from TE, AUST	Member Secretary
4	Md. Minhajul Islam Khan Shuhan, Assistant Professor, Department of Civil Engineering & OBE Program Coordinator from CE, AUST	Member
5	Mr. H M Zabir Haque, Assistant Professor, Department of Computer Science and Engineering & OBE Program Coordinator from CSE, AUST	Member
6	Dr. Ummay Hani, Associate Professor, Department of Electrical & Electronics Engineering & OBE Program Coordinator from EEE, AUST	Member
7	Mr. Kazi Wahadul Hasan, Lecturer, Department of Mechanical and Production Engineering & OBE Program Coordinator (IPE) from MPE, AUST	Member
8	Mr. Saif Rahman Khan, Lecturer, Department of Mechanical and Production Engineering & OBE Program Coordinator (ME) from MPE, AUST	Member
9	Dr. Muhammad Saiful Islam Mallik, Professor, Department of Arts & Sciences & OBE Program Coordinator-1from A&S, AUST	Member
10	Dr. Mohammad Abdul Kader, Associate Professor, Department of Arts & Sciences & OBE Program Coordinator -2 from A&S, AUST	Member
11	Dr. Wahiduzzaman Khan, Associate Professor, School of Business & OBE Program Coordinator from SoB AUST	Member
12	Ms. Maher Niger, Assistant Professor, Department of Architecture & OBE Program Coordinator from Architecture, AUST	Member

Terms of Reference:

The Committee will co-ordinate implementation of OBE in different engineering programs at AUST and provide necessary guidelines to the Program Coordinators so that they can disseminate the knowledge and guidelines to the faculty members of their respective departments for implementation of the OBE in the education system of AUST.

All the teachers are requested to prepare and update the course files and help update the SAR required for accreditation purposes.

By Order of the Vice-Chancellor,

Sd/-

(Dr. Md. Mosharof Hossain)
Registrar

Copy for information and necessary action to:

1. Chairman, Co-chairman and all Members of the OBE Committee, AUST
2. All Deans of the Faculties, AUST
3. All Heads of the Departments/School/Offices, AUST
4. Secretary, BoT, AUST
5. APS to Vice-Chancellor, AUST (For kind information of the Vice-Chancellor)
6. APS to Treasurer, AUST (For kind information of the Treasurer)

7-3-21

(Md. Muniruzzaman)
Deputy Registrar

C-1 D: Registrar's Office\Committee\Committee.doc
141-142 Love Road Tejgaon Industrial Area, Dhaka-1208, Bangladesh
Tel : 880-2-8870422 (auto hunting), Fax : 880-2-8870417
E-mail : info@aust.edu; Web : www.aust.edu

Appendix B: Notices related to Departmental OBE Committees

Date: 13 February, 2019

Department of Civil Engineering

The following Committee has been formed for the implementation of OBE (Outcome Based Education) in the Department of Civil Engineering, AUST

1.	Dr. Afzal Ahmed Professor Cell: 01747219478, E-mail: afzal.ahmed2008@gmail.com	OBE Program Coordinator
2.	Rumana Afrin Assistant Professor Cell: 01678301678, E-mail: rumafrin@yahoo.com	Member
3.	Mr. Md. Minhajul Islam Khan Assistant Professor Cell: 01717636129, E-mail: khan_minhajul@yahoo.com	Member
4.	Mr. Md. Munirul Islam Lecturer Cell: 01912024670, E-mail: saeedce@yahoo.com	Member
5.	Mr. Md. Asif Hossain Lecturer Cell: 01735647608, E-mail: arnobbd@gmail.com	Member
6.	Ms. Nasima Sultana Lecturer Cell: 01679038800, E-mail: tanicivil079@ gmail.com	Member

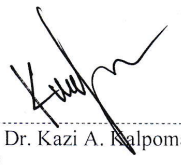
Prof. Dr. Sharmin Reza Chowdhury
Head
Department of Civil Engineering, AUST

Date: 12 February, 2019

Department of Computer Science & Engineering

The following Committee has been formed for the implementation of OBE (Outcome Based Education) in the Department of Computer Science & Engineering, AUST.

1.	Dr. Mohammad Shafiul Alam Associate Professor Cell: 01715-104101, Email: shuvo23@gmail.com	OBE Program Coordinator
2.	Dr. S. M. Abdullah Al-Mamun Professor Cell: 01912-073524, Email: al_mamun81@yahoo.com	Member
3.	Mr. Md. Khairul Hasan Associate Professor Cell: 01711-109629, Email: khairul271276@aust.edu	Member
4.	Mr. Mohammad Moinul Hoque Associate Professor Cell: 01817-579779, Email: moincse@gmail.com	Member
5.	Dr. Md Shahriar Mahbub Associate Professor Cell: 01748-567161, Email: shaikatcse@gmail.com	Member
6.	Mr. Faisal Muhammad Shah Assistant Professor Cell: 01911-090363, Email: faisal505@hotmail.com	Member
7.	Mr. Tanvir Ahmed Assistant Professor Cell: 01747-584067, Email: tahmed020@hotmail.com	Member
8.	Mr. Tanveer Ahmed Belal Lecturer Cell: 01671-989204, Email: belal92.cse@gmail.com	Member
9.	Mr. Md. Aminur Rahman Lecturer Cell: 01681-646953, Email: aminur.aust27@outlook.com	Member
10.	Ms. Anika Sayara Lecturer Cell: 01676-530259, Email: anikasayara@outlook.com	Member
11.	Ms. Tasnim Kabir Lecturer Cell: 01717-113936, Email: tasnimkabir105@gmail.com	Member



Prof. Dr. Kazi A. Kalpoma
Head
Department of Computer Science & Engineering, AUST

Date: February 05, 2019

OFFICE ORDER

Departmental committee towards implementation of OBE (Outcome based education) for the purpose of BAETE accreditation has been reformed with the following faculty members:

1.	Prof. Dr. Tareq Aziz	Professor	Convener
2.	Mr.Hasib Md. Abid Bin Farid	Assistant Professor	Member
3.	Mr. Safayat-Al-Imam	Assistant Professor	Member
4.	Ms. Silvia Tasnim	Lecturer	Member
5.	Mr. Ayman Uddin Mahin	Lecturer	Member
6.	Mr. S.M. Ishraqul Huq	Lecturer	Member

Ehtesanul 5/2/19

Prof. Dr. A.K.M. Ehtesanul Islam
Head
Dept. of EEE

Copy for information to:

1. Registrar, AUST
2. APS to Vice chancellor, AUST
3. Member Secretary, AUST OBE committee
4. File

Notice

The university has already initiated the works and activities regarding Outcome Based Education (OBE). In this connection, the department needs to form a committee to assist the central committee for each program. **Dr. Muhammad Azizur Rahman** (IPE) and **Dr. Md. Shahnewaz Bhuiyan** (ME)) has already nominated from the department for the central committee. **Professor Dr. Mazharul Islam** is already the member-secretary of the central committee. The following members are selected for the departmental OBE committee for both program (i.e. IPE and ME). This committee will be assisted by Quality Assurance Committee of MPE department and Central OBE committee.

Faculty members for OBE Committee of MPE department

IPE discipline	**ME discipline**
Sayem Ahmed, Assistant Professor	Fazlar Rahman, Assistant Professor
Tanzila Azad, Assistant Professor	Dr. Harun Or Rashid, Assistant Professor
Amanat Ur Rahman, Assistant Professor	Dr. Kharshiduzzman, Assistant Professor
Inzamam Ul Haq, Lecturer	Dr. Fazle Rabbi, Assistant Professor
Nafi Ahmed, Lecturer	Merajul Haque, Assistant Professor
Zahid Hasan, Lecturer	Md. Arif Mahmud Shuklo Shoshe, Assistant Professor
Kazi Wahadul Hasan, Lecturer	Md. Fazle Alam, Lecturer
Toukir Ahmed, Lecturer	Saif Rahman Khan, Lecturer

Sincerely,

22/01/19

Dr. Dewan Hasan Ahmed
Professor and Head
Mechanical and Production Engineering Department
Ahsanullah University of Science and Technology

Date: 11 February, 2019

Department of Textile Engineering

The following Committee has been formed for the implementation of OBE (Outcome Based Education) in the Department of Textile Engineering, AUST.

1.	Mr. Mohammad Faizur Rahman Associate Professor Cell: 01711209871, E-mail: rashedtex@gmail.com	OBE Program Coordinator
2.	Mr. Sheikh Nazmul Hoque Assistant Professor Cell:01714329518, E-mail: rana_gandaria@yahoo.com	Member
3.	Mr. Jamal Hossen Assistant Professor Cell: 079636306605, E-mail: jamal.dtt@aust.edu	Member
4.	Mr. Muksit Ahamed Chowdhury Assistant Professor Cell: 01717559009, E-mail: muksit.dte@aust.edu	Member
5.	Mr. Md. Zulfikar Hasan Lecturer Cell: 01676936077, E-mail: hasanzulfikar0@gmail.com	Member

Prof. Dr. Lal Mohan Baral
Head
Department of Textile Engineering, AUST

No. AUST/A&S/OBE/01 Date : 28 January 2019

Department of Arts and Sciences, AUST

Notice

A Departmental Committee consisting of the following faculty members regarding outcome based education(OBE) program has been formed.

Outcome Based Education(OBE) Committee

01. The OBE program Coordinators

Sl No	Name	Designation	Subject
01.	Dr. Md. Saiful Islam Mallik	Assoc. Prof.	Mathematics
02.	Dr. Mohammad Abdul Kader	Assoc. Prof.	Chemistry

02. Senior faculty members for each specialization :

Sl No	Name	Designation	Subject
01.	Dr. Md. Hamidur Rahman Khan	Professor	Physics
02.	Dr. Sreebash Chandra Paul	Professor	Mathematics
03.	Dr. Md. Ashrafur Rahman	Professor	Physics
04.	Dr. S. M. Abdul Karim	Assoc. Prof.	Chemistry
05.	Dr. Md. Masum Billah	Assoc. Prof.	Mathematics
06.	Dr. Md. Shakhawoat Hossain	Assoc. Prof.	Chemistry
07.	Mr. Md. Iftekhar Arafath	Asstt. Prof.	English
08.	Mr. Mohammad Rukanuddin	Asstt. Prof.	English
09.	Mosammat Shamima Nasrain	Asstt. Prof.	Sociology

03. Faculty members for coordination theory courses :

Sl No	Name	Designation	Subject
01.	Mr. Mohammad Azizul Hoque	Asstt. Prof.	Mathematics
02.	Mr. Md. Mahmudul Hasan Sagar	Lecturer	Psychology

04. Faculty members for coordination Lab. courses :

Sl No	Name	Designation	Subject
01.	Dr. Md. Zaman Molla	Asstt. Prof.	Physics
02.	Dr. Mohammad Shahid Ullah	Asstt. Prof.	Chemistry

28/1/19

Prof. Dr. Tamanna Afroze
Head, Department of Arts and Sciences

Distribution for necessary action :

01. Dr. Md. Saiful Islam Mallik, OBE Program Coordinator
02. Dr. Mohammad Abdul Kader, OBE Program Coordinator
03. All members of the OBE program committee

Appendix C: Office Orders for the Training Events at BAETE

BOARD OF ACCREDITATION FOR ENGINEERING AND TECHNICAL EDUCATION

Prof. Dr. A.F.M. Saiful Amin
PhD, FIEB, FICE
Member Secretary

BAETE/Training/2016/465 (01) *14 May 2019*

Mohammad Abdul Gafur
Registrar
Ahsanullah University of Science and Technology
141 & 142, Love Road, Tejgaon Industrial Area, Dhaka-1208.
E-mail: regr@aust.edu,

Selected participant(s) for the day-long, hands-on orientation on outcome-based education

Dear Sir,

Thank you very much for your thoughtful nomination of participant(s) for the day-long BAETE orientation program scheduled in June 2019. The following candidate(s) have been selected as participant(s) for the orientation program for the date(s) listed by their name(s). Preferred date, if there was any in your nomination, was given priority.

Sl.	Participants	Program	Date
1.	Prof. Dr. Md. Abdur Rouf, Professor	Dept. of CE	19 June 2019
2.	Prof. Dr. Mazharul Islam, Professor	Dept. of MPE	19 June 2019
3.	Prof. Dr. Afzal Ahmed, Professor	Dept. of CE	19 June 2019
4.	Dr. Mohammad Shafiul Alam, Assistant Professor	Dept. of CSE	19 June 2019
5.	Prof. Dr. Tareq Aziz, Professor	Dept. of EEE	19 June 2019
6.	Dr. Muhommad Azizur Rahman , Assistant Professor	Dept. of MPE	19 June 2019
7.	Mr. Mohammad Faizur Rahman, Associate Professor	Dept. of TE	18 June 2019
8.	Dr. Muhammad Saiful Islam Mallik, Associate Professor	Dept. of A &S	18 June 2019

We received an overwhelming number of responses from engineering programs across Bangladesh for this event, but we can only accommodate a certain number of participants. This compelled us to prepare a waiting list of nominees to be invited to fill the vacancies for unconfirmed participants.

In order to confirm the participation of your candidate(s), you are hereby requested to deposit the registration fee of Tk.10,000/- (ten thousand taka) per participant. The registration fee should be paid by means of a check made out to **BAETE, Bangladesh** and should reach us on or before 23 May 2019. After this deadline, to make the best use of available opportunities, BAETE will be inviting participant(s) from the waiting list of nominees for unconfirmed vacant positions.

Please feel free to contact our registrar at registrar@baetebangladesh.org or +880255110302 (11 AM–4 PM on working days) for any additional information.

Best regards,

Prof. Dr. AFM Saiful Amin
Member Secretary

Copy forwarded for information and necessary action:
1) Chairman, BAETE
2) Vice Chancellor, AUST
3) Director, IQAC, AUST
4) Office records

আহ্ছানউল্লা ইউনিভার্সিটি অব সায়েন্স অ্যান্ড টেকনোলজি
AHSANULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

(Sponsored by the Dhaka Ahsania Mission and approved by the Government of the People 's Republic of Bangladesh)

No. AUST/N-01(Part-A)/09/R- 1331 (19) Date: 27 August 2019

OFFICE ORDER

Pursuant to the invitation for a day-long hands-on orientation by the Member Secretary of Board of Accreditation for Engineering and Technical Education, the following teachers are hereby nominated to attend the program to be held on 09 October 2019 (Wednesday) at the office of BAETE, Bangladesh, Dhaka:

Sl No.	Name, Designation & Department	Mobile No. & e-mail
1.	Dr. Mazharul Islam Professor, Dept. of Mechanical and Production Engineering	01785-96 86 81 mazharul.islam.mpe@aust.edu
2.	Dr. Mohammad Shafiul Alam Professor, Dept. of Computer Science and Engineering	01715-10 41 01 shuvo23@gmail.com
3.	Dr. Tareq Aziz Professor, Dept. of Electrical and Electronic Engineering	01732-08 82 88 taziz.eee@aust.edu
4.	Dr. Muhammad Azizur Rahman Assistant Prof., Dept. of Mechanical and Production Engineering	01758-46 81 28 azizur777@gmail.com
5.	Mr. Mohammad Faizur Rahman Associate Professor, Dept. of Textile Engineering	01711-20 98 71 rashedtex@gmail.com

They are granted Tk. 10,000/- (taka ten thousand) only each for registration fee for this purpose. They are also granted duty leave for the aforesaid period.

By order of the Vice-Chancellor,

Sd/-

(Muhammad Abdul Gafur)
Registrar

Distribution:

1. Treasurer, AUST- He is requested to make arrangement for issuance of a cheque of Tk. 10,000/- as registration fee for each participant.
2. Heads, Department of CSE/EEE/MPE/TE, AUST
3. Dr. Mazharul Islam, Professor, Dept. of MPE, AUST
4. Dr. Mohammad Shafiul Alam, Professor, Dept. of CSE, AUST
5. Dr. Tareq Aziz, Professor, Dept. of EEE, AUST
6. Dr. Muhammad Azizur Rahman, Assistant Professor, Dept. of MPE, AUST
7. Mr. Mohammad Faizur Rahman, Associate Professor, Dept. of TE
8. Member Secretary, Board of Accreditation for Engineering and Technical Education, e-mail: registrar@baetebangladesh.org

Copy for information:

1. Secretary, BoT, AUST (For kind information of the Chairman, BoT)
2. APS to Vice-Chancellor, AUST (For kind information of the Vice-Chancellor)
3. Personal files.

27-8-19

(Md. Muniruzzaman)
Deputy Registrar

141-142 Love Road Tejgaon Industrial Area, Dhaka-1208, Bangladesh
Tel : 880-2-8870422 (auto hunting), Fax : 880-2-8870417
E-mail : info@aust.edu; Web : www.aust.edu

আহ্ছানউল্লা ইউনিভার্সিটি অব সায়েন্স অ্যান্ড টেকনোলজি
AHSANULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
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No. AUST/N-01(Part-A)/09/R- 580 Date: 16 March 2020

OFFICE ORDER

As per invitation letter No. BAETE/Symp/2018-2019/0632(02) Date: 07 December 2019 sent by the Member Secretary, Board of Accreditation for Engineering and Technical Education (BAETE), the following faculty members of this University, are nominated to attend the "International Symposium on **Quality Assurance in Engineering Education** through Accreditation-II" to be held from 26-27 August 2020 at the InterContinental Hotel, Dhaka, Bangladesh:

Dr. A.K.M. Ehtesanul Islam Professor & Head Department of Electrical and Electrical Engineering	Dr. Mazharul Islam Director of IQAC & Professor Department of Mechanical and Production Engineering
Mr. Md. Minhajul Islam Khan Assistant Professor Department of Civil Engineering	Dr. Mohammad Shafiul Alam Professor & OBE Program Coordinator Department of Computer Science and Engineering
Dr. Bobby Barua Professor Department of Electrical and Electrical Engineering, AUST	Mr. Nafi Ahmed Lecturer & OBE Program Coordinator Department of Mechanical and Production Engineering
Dr. Md. Rejaul Haque Assistant Professor Department of Mechanical and Production Engineering	Mr. Mohammad Faizur Rahman Associate Professor & OBE Program Coordinator Department of Textile Engineering
Dr. Muhammad Saiful Islam Mallik Professor & OBE Program Coordinator 1, Department of Arts and Sciences	Dr. Mohammad Abdul Kader Professor & OBE Program Coordinator 2, Department of Arts and Sciences

They are granted Tk. 15,000/- (taka fifteen thousand) only each for registration fee for this purpose. They are also granted duty leave for the aforesaid period.

By Order of the Vice-Chancellor,

Sd/-

(Muhammad Abdul Gafur)
Registrar

Copy for information and necessary action to:

1. Treasurer, AUST- He is requested to make arrangement for issuance of a cheque of Tk. 15,000/- as registration fee for each.
2. Head, Deptt. of CE/CSE/EEE/TE/MPE/A&S, AUST
3. Concerned Faculty Members, AUST
4. Secretary, BoT, AUST (For kind information of the Chairman, BoT)
5. APS to Vice-Chancellor, AUST (For kind information of the Vice-Chancellor)
6. Personal files.

16-3-20

(Md. Muniruzzaman)
Deputy Registrar

141-142 Love Road Tejgaon Industrial Area, Dhaka-1208, Bangladesh
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আহ্ছানউল্লা ইউনিভার্সিটি অব সায়েন্স অ্যান্ড টেকনোলজি
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No. AUST/N-01(Part-A)/09/R- 271 Date: 09 February 2021

OFFICE ORDER

The following faculties of this University are hereby nominated to attend "Online Orientation and Discussion Session on Accreditation Evaluation by Program Evaluators" arranged by Board of Accreditation for Engineering and Technical Education (BAETE) to be held on 08-11 February 2021:

Dr. Mazharul Islam Director of IQAC & Professor Department of Mechanical and Production Engineering	Prof. Dr. Mohammad Shafiul Alam Head, Department of Computer Science and Engineering, AUST
Mr. Mohammad Faizur Rahman Associate Professor Department of Textile Engineering	

They are granted Tk. 1,000/- (taka one thousand) only each for registration fee for this purpose. They are also granted duty leave for the aforesaid period.

By Order of the Vice-Chancellor,

Sd/-
Registrar (In-charge)

Copy for information and necessary action to:

1. Treasurer, AUST- He is requested to make arrangement for issuance of a cheque of Tk. 1,000/- as registration fee for each.
2. Member Secretary, BAETE, e-mail: membersecretary@baetebangladesh.org
3. Head, Deptt. of CSE/TE/MPE, AUST
4. Concerned Faculty Members, AUST
5. Secretary, BoT, AUST
6. APS to Vice-Chancellor, AUST (For kind information of the Vice-Chancellor)
7. Personal files.

9-2-21
(Md. Muniruzzaman)
Deputy Registrar

141-142 Love Road Tejgaon Industrial Area, Dhaka-1208, Bangladesh
Tel : 880-2-8870422 (auto hunting), Fax : 880-2-8870417
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No. AUST/N-01(Part-A)/09/R- 457 Date: 11 March 2021

OFFICE ORDER

The following Faculty Members of this University were nominated to attend "Online Orientation and Discussion Session on Accreditation Evaluation by Program Evaluators" arranged by Board of Accreditation for Engineering and Technical Education (BAETE) held on 08-11 February 2021:

Prof. Dr. Mohammad Sarwar Morshed, Head, Deptt. of MPE, AUST e-mail: m.morshed.mpe@aust.edu Mobile: 01616800900	Dr. Dewan Hasan Ahmed Prof., Deptt. of MPE, AUST e-mail: dhahmed.mpe@aust.edu Mobile: 01720164490
Dr. Tareq Aziz Prof. Deptt. of EEE, AUST e-mail: taziz.eee@aust.edu Mobile: 01732088228	Dr. Lal Mohan Baral Prof. Deptt. of TE, AUST e-mail:lalmohan_baral@yahoo.com Mobile: 01712595479
Mr. Monjur Morshed Assoc. Prof. Deptt. of EEE, AUST e-mail: monjurm@aust.edu Mobile: 01912138282	Dr. A.K.M. Ehtesanul Islam Prof., Deptt. of EEE, AUST e-mail: ehtesan@aust.edu Mobile: 01711602224
Dr. Mahbubul Muttakin Assoc. Prof., Deptt. of MPE, AUST	Dr. Mohammad Harun-Or-Rashid Assoc. Prof., Deptt. of MPE, AUST
Mr. Md. Rezaul Karim Nayeem Asstt. Prof., Deptt. of MPE, AUST e-mail: nayeemipeaust@gmail.com Mobile:01913464185	Mr. Fazlar Rahman Assoc. Prof., Deptt. of MPE, AUST e-mail: fazlar19@hotmail.com Mobile: 01798455193
Ms. Humaira Nafisa Ahmed Asstt. Prof., Deptt. of MPE, AUST e-mail: humairanafisa380@gmail.com Mobile:01674967380	Mr. Shah Md. Ashiquzzaman Nipu Asstt. Prof., Deptt. of MPE, AUST e-mail: shahmd9533@gmail.com Mobile: 01721176905
Dr. Muhommad Azizur Rahman, Asstt. Prof., Deptt. of MPE, AUST e-mail: azizur777@gmail.com Mobile:01758468128	

They are hereby granted Tk. 1,000/- (taka one thousand) only each for registration fee for this purpose.

By Order of the Vice-Chancellor,

Sd/-
(Dr. Md. Mosharof Hossain)
Registrar

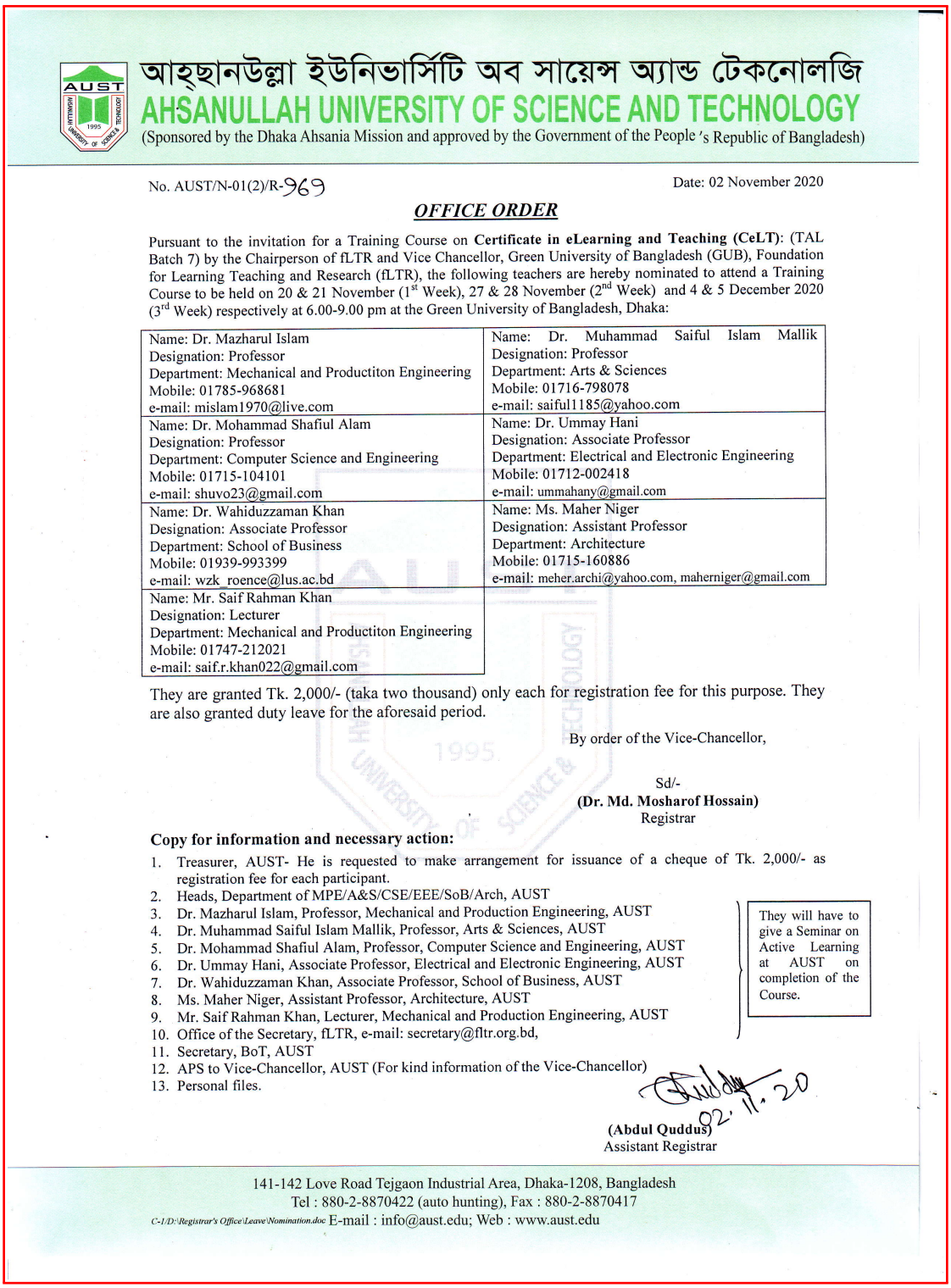
Copy for information and necessary action to:

1. Treasurer, AUST- He is requested to make arrangement for issuance of a cheque of Tk. 1,000/- as registration fee for each.
2. Member Secretary, BAETE, e-mail: membersecretary@baetebangladesh.org
3. Head, Deptt. of CSE/EEE/TE/MPE, AUST
4. Concerned Faculty Members, AUST
5. Secretary, BoT, AUST
6. APS to Vice-Chancellor, AUST (For kind information of the Vice-Chancellor)
7. Personal files.

11-3-21
(Md. Muniruzzaman)
Deputy Registrar

141-142 Love Road Tejgaon Industrial Area, Dhaka-1208, Bangladesh
Tel : 880-2-8870422 (auto hunting), Fax : 880-2-8870417
E-mail : info@aust.edu; Web : www.aust.edu

Appendix D: Office Orders for the Training Events at fLTR



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No. AUST/N-01(2)/R-969

Date: 02 November 2020

OFFICE ORDER

Pursuant to the invitation for a Training Course on **Certificate in eLearning and Teaching (CeLT)**: (TAL Batch 7) by the Chairperson of fLTR and Vice Chancellor, Green University of Bangladesh (GUB), Foundation for Learning Teaching and Research (fLTR), the following teachers are hereby nominated to attend a Training Course to be held on 20 & 21 November (1st Week), 27 & 28 November (2nd Week) and 4 & 5 December 2020 (3rd Week) respectively at 6.00-9.00 pm at the Green University of Bangladesh, Dhaka:

Name: Dr. Mazharul Islam Designation: Professor Department: Mechanical and Productiton Engineering Mobile: 01785-968681 e-mail: mislam1970@live.com	Name: Dr. Muhammad Saiful Islam Mallik Designation: Professor Department: Arts & Sciences Mobile: 01716-798078 e-mail: saiful1185@yahoo.com
Name: Dr. Mohammad Shafiul Alam Designation: Professor Department: Computer Science and Engineering Mobile: 01715-104101 e-mail: shuvo23@gmail.com	Name: Dr. Ummay Hani Designation: Associate Professor Department: Electrical and Electronic Engineering Mobile: 01712-002418 e-mail: ummahany@gmail.com
Name: Dr. Wahiduzzaman Khan Designation: Associate Professor Department: School of Business Mobile: 01939-993399 e-mail: wzk_roence@lus.ac.bd	Name: Ms. Maher Niger Designation: Assistant Professor Department: Architecture Mobile: 01715-160886 e-mail: meher.archi@yahoo.com, maherniger@gmail.com
Name: Mr. Saif Rahman Khan Designation: Lecturer Department: Mechanical and Productiton Engineering Mobile: 01747-212021 e-mail: saif.r.khan022@gmail.com	

They are granted Tk. 2,000/- (taka two thousand) only each for registration fee for this purpose. They are also granted duty leave for the aforesaid period.

By order of the Vice-Chancellor,

Sd/-
(Dr. Md. Mosharof Hossain)
Registrar

Copy for information and necessary action:

1. Treasurer, AUST- He is requested to make arrangement for issuance of a cheque of Tk. 2,000/- as registration fee for each participant.
2. Heads, Department of MPE/A&S/CSE/EEE/SoB/Arch, AUST
3. Dr. Mazharul Islam, Professor, Mechanical and Production Engineering, AUST
4. Dr. Muhammad Saiful Islam Mallik, Professor, Arts & Sciences, AUST
5. Dr. Mohammad Shafiul Alam, Professor, Computer Science and Engineering, AUST
6. Dr. Ummay Hani, Associate Professor, Electrical and Electronic Engineering, AUST
7. Dr. Wahiduzzaman Khan, Associate Professor, School of Business, AUST
8. Ms. Maher Niger, Assistant Professor, Architecture, AUST
9. Mr. Saif Rahman Khan, Lecturer, Mechanical and Production Engineering, AUST
10. Office of the Secretary, fLTR, e-mail: secretary@fltr.org.bd,
11. Secretary, BoT, AUST
12. APS to Vice-Chancellor, AUST (For kind information of the Vice-Chancellor)
13. Personal files.

They will have to give a Seminar on Active Learning at AUST on completion of the Course.

02. 11. 20

(Abdul Quddus)
Assistant Registrar

141-142 Love Road Tejgaon Industrial Area, Dhaka-1208, Bangladesh
Tel : 880-2-8870422 (auto hunting), Fax : 880-2-8870417
C-1/D:\Registrar's Office\Leave\Nomination.doc E-mail : info@aust.edu; Web : www.aust.edu

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SUBSTITUTED FOR THE ONE BEARING SAME NO. AND DATE

No. AUST/N-01(2)/R-187 Date: 25 January 2021

OFFICE ORDER

Pursuant to the invitation sent through e-mail dated 03 January 2021 for a Training Course on **Certificate in eLearning and Teaching (CeLT)**: (TAL Batch 2) by the Chairperson of fLTR and Vice Chancellor, Green University of Bangladesh (GUB), Foundation for Learning Teaching and Research (fLTR), the following teachers are hereby nominated to attend a Training Course to be held on 05 &06 February 2021 (1st Week), 12 & 13 February 2021 (2nd Week) and 19 & 20 February 2021 (3rd Week) respectively at 6.00-9.00 pm at the Green University of Bangladesh, Dhaka:

Name: Ms. Shaela Sharmin Rity Designation: Assistant Professor Department: Electrical and Electronic Engineering Mobile: 01770-747601 e-mail: shaela.ritu@gmail.com	Name: Mr. Jahangir Alam Designation: Lecturer (Grade-I) Department: School of Business Mobile: 01918-984999 e-mail: jahangir.sob@aust.edu
Name: Mr. Al Hasib Mahamud Designation: Lecturer (Grade-II) Department: Computer Science and Engineering Mobile: 01785-510021 e-mail: hasib.cse@aust.edu	Name: Mr. Sabuj Chowdhury Designation: Assistant Professor Department: Civil Engineering Mobile: 01825-914200 e-mail:sabujchy.ce@aust.edu
Name: Mr. Shahriar Raian Designation: Assistant Professor Department: Textile Engineering Mobile: 01765-903327 e-mail: raian.te@aust.edu	Name: Mr. Md. Mahmudul Hasan Sagar Designation: Assistant Professor of Psychology Department: Arts & Sciences Mobile: 01681-482252 e-mail: mmhasansagar.psy.as@aust.edu
Name: Aquib Rahman Designation: Lecturer (IPE) Department: Mechanical and Production Engineering Mobile: 01785832213 e-mail: aqibdrme@gmail.com	Name: Mr. Syed Shabeer Uddin Ahmed Designation: Lecturer (ME) Department: Mechanical and Production Engineering Mobile: 01915167566 e-mail: syed.ahmed.mpe@aust.edu

They are granted Tk. 2,000/- (taka two thousand) only each for registration fee for this purpose. They are also granted duty leave for the aforesaid period.

By order of the Vice-Chancellor,

Sd/-
(Dr. Md. Mosharof Hossain)
Registrar

No. AUST/N-01(2)/R- 191 Date: 26 January 2021

Copy for information and necessary action:

1. Treasurer, AUST- He is requested to make arrangement for issuance of a cheque of Tk. 2,000/- as registration fee for each participant.
2. Heads, Department of EEE/SoB/CSE/CE/TE/A&S, AUST
3. Director, IQAC, AUST
4. Ms. Shaela Sharmin Rity, Assistant Professor, Deptt. of EEE, AUST
5. Mr. Jahangir Alam, Lecturer (Grade-I), School of Business, AUST
6. Mr. Al Hasib Mahamud, Lecturer ((Grade-II) Deptt. of CSE, AUST
7. Mr. Sabuj Chowdhury, Assistant Professor, Deptt. of Civil Engineering, AUST
8. Mr. Shahriar Raian, Assistant Professor, Deptt. of Textile Engineering, AUST
9. Mr. Md. Mahmudul Hasan Sagar, Asstt. Prof. of Psychology, Deptt. of Arts & Sciences, AUST
10. Office of the Secretary, fLTR, e-mail: secretary@fltr.org.bd,
11. Secretary, BoT, AUST
12. APS to Vice-Chancellor, AUST (For kind information of the Vice-Chancellor)
13. Personal files.

They will have to give a Seminar on Active Learning at AUST on completion of the Course.

26-1-21
(Md. Muniruzzaman)
Deputy Registrar

141-142 Love Road Tejgaon Industrial Area, Dhaka-1208, Bangladesh
Tel : 880-2-8870422 (auto hunting), Fax : 880-2-8870417
E-mail : info@aust.edu; Web : www.aust.edu

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আহ্ছানউল্লা ইউনিভার্সিটি অব সায়েন্স অ্যান্ড টেকনোলজি
AHSANULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
(Sponsored by the Dhaka Ahsania Mission and approved by the Government of the People 's Republic of Bangladesh)

NO.: AUST/N-1/R-866 **Date: 28 July 2021**

Office Order

Pursuant to the invitation sent through e-mail dated 01 July 2021 for attending an online training titled "**Certificate in e-learning and Teaching (CeLT)**", the Foundation for Learning, Teaching and Research (fLTR) by the Chairperson of fLTR and Vice Chancellor, Green University of Bangladesh(GUB), the following Teachers (10 persons) are hereby nominated to attend the online training to be held during 05 August to 20 August 2021 (1st week: 05 and 06 August, 2021, 2nd week: 12 and 13 August, 2021 and 3rd week: 19 and 20 August, 2021) and time schedule is 5:15.00-8:30 pm:

Sl	Name	Designation, Department	Cell Number	E-mail
1.	Ayasha Siddiqua	Assistant Prof., Arch	01741887229	ayasha_35.arch@aust.edu
2.	Ms. Shayma Sadia Nurin	Lecturer (G-II), SoB	01302700352	nurin.sob@aust.edu
3.	Ms. Nusrat Jahan	Lecturer (G-I), CE	01928990429	nusratjahan.ce@aust.edu
4.	Md. Tanvir Rouf Shawon	Lecturer (G-II)' CSE	01773439315	shawontanvir.cse@aust.edu
5.	Ms. Hridhi uberi	Lecturer, EEE	01521105262	juberihridi@gmail.com
6.	Ms. Nayeema Hasan	Lecturer, EEE	01845785064	nayeema.sayeed@gmail.com
7.	Mr. Faisal Farhan	Lecturer, EEE	01778726056	faisalfarhan.eee@aust.edu
8.	Dr. Abdullah Hil Kafy	Assistant Prof., MPE(IPE)	01310924112	abdullahil.mpe@aust.edu
9.	Dr. Zillur Rahman	Assistant Prof., MPE (ME)	01636001100	zillur.me@aust.edu
10.	Mr. Md. Faisal Mahmud	Lecturer (G-II), TE	01770756506	faisal.te@aust.edu

They are granted Tk. 2,000/-(Taka two thousand) each for registration fees for this purpose.

By Order of the University Authorities,

Sd/-

(Dr. Md. Mosharof Hossain)
Registrar

Copy for information and necessary action to:

1. Treasurer, AUST- He is requested to make arrangement of Tk. 2,000/- as registration fees for each participant.
2. All Heads of the Departments/School, AUST
3. Director IQAC
4. Concerned Faculty Members, AUST
5. Secretary, BoT, AUST
6. Office of the Secretary, fLTR , e-mail: secretary@fltr.org.bd, tel. No.: 01708359767,01671642515
7. APS to Vice-Chancellor, AUST (For kind information of the Vice-Chancellor)

(Md. Muniruzzaman)
Deputy Registrar

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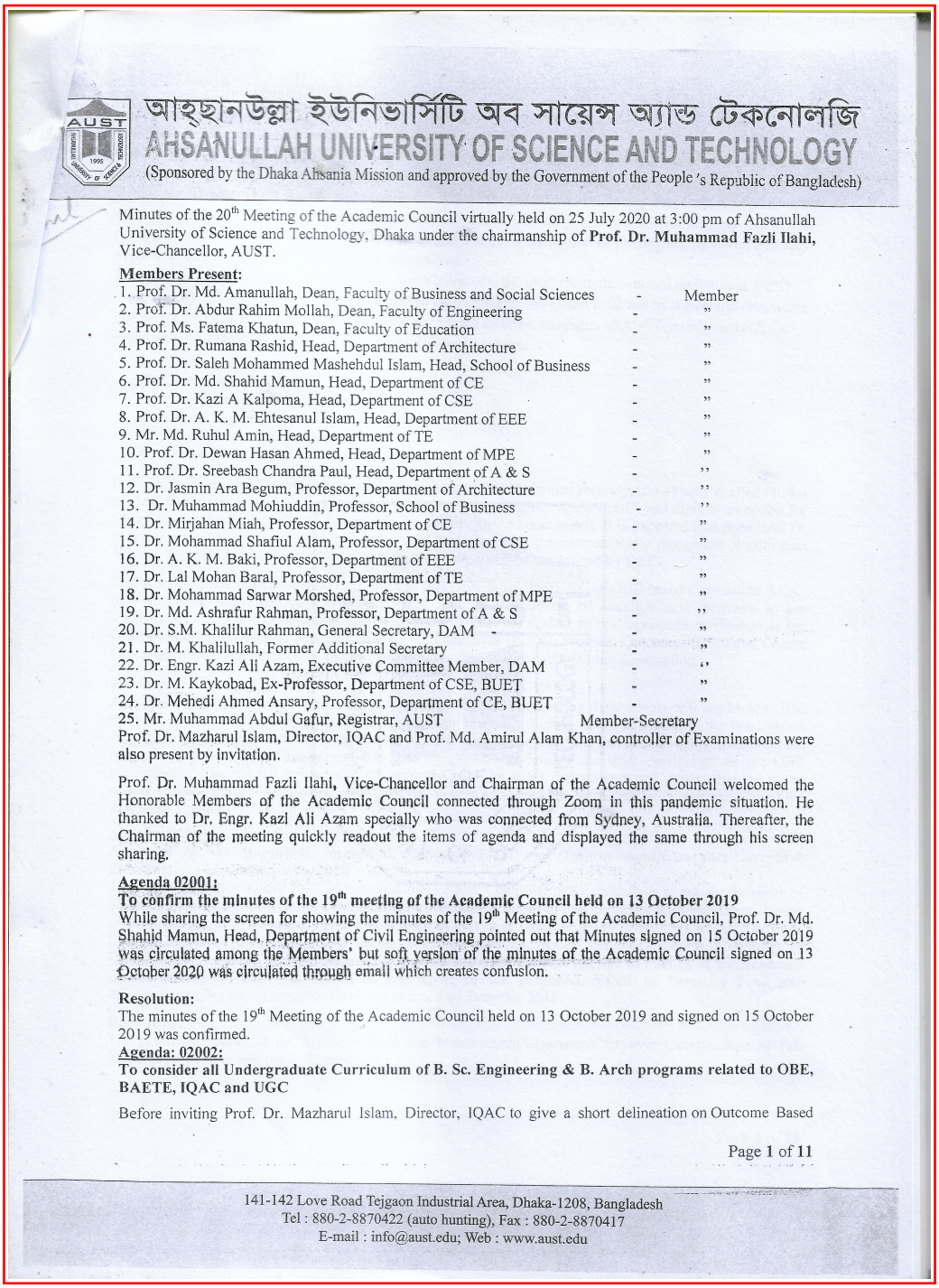
Appendix E: Resolution for Agenda 02002 of the 20^{th} Meeting of the Academic Council



আহ্ছানউল্লা ইউনিভার্সিটি অব সায়েন্স অ্যান্ড টেকনোলজি
AHSANULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
(Sponsored by the Dhaka Ahsania Mission and approved by the Government of the People 's Republic of Bangladesh)

Minutes of the 20th Meeting of the Academic Council virtually held on 25 July 2020 at 3:00 pm of Ahsanullah University of Science and Technology, Dhaka under the chairmanship of **Prof. Dr. Muhammad Fazli Ilahi,** Vice-Chancellor, AUST.

Members Present:

1. Prof. Dr. Md. Amanullah, Dean, Faculty of Business and Social Sciences	-	Member
2. Prof. Dr. Abdur Rahim Mollah, Dean, Faculty of Engineering	-	"
3. Prof. Ms. Fatema Khatun, Dean, Faculty of Education	-	"
4. Prof. Dr. Rumana Rashid, Head, Department of Architecture	-	"
5. Prof. Dr. Saleh Mohammed Mashehdul Islam, Head, School of Business	-	"
6. Prof. Dr. Md. Shahid Mamun, Head, Department of CE	-	"
7. Prof. Dr. Kazi A Kalpoma, Head, Department of CSE	-	"
8. Prof. Dr. A. K. M. Ehtesanul Islam, Head, Department of EEE	-	"
9. Mr. Md. Ruhul Amin, Head, Department of TE	-	"
10. Prof. Dr. Dewan Hasan Ahmed, Head, Department of MPE	-	"
11. Prof. Dr. Sreebash Chandra Paul, Head, Department of A & S	-	"
12. Dr. Jasmin Ara Begum, Professor, Department of Architecture	-	"
13. Dr. Muhammad Mohiuddin, Professor, School of Business	-	"
14. Dr. Mirjahan Miah, Professor, Department of CE	-	"
15. Dr. Mohammad Shafiul Alam, Professor, Department of CSE	-	"
16. Dr. A. K. M. Baki, Professor, Department of EEE	-	"
17. Dr. Lal Mohan Baral, Professor, Department of TE	-	"
18. Dr. Mohammad Sarwar Morshed, Professor, Department of MPE	-	"
19. Dr. Md. Ashrafur Rahman, Professor, Department of A & S	-	"
20. Dr. S.M. Khalilur Rahman, General Secretary, DAM	-	"
21. Dr. M. Khalilullah, Former Additional Secretary	-	"
22. Dr. Engr. Kazi Ali Azam, Executive Committee Member, DAM	-	"
23. Dr. M. Kaykobad, Ex-Professor, Department of CSE, BUET	-	"
24. Dr. Mehedi Ahmed Ansary, Professor, Department of CE, BUET	-	"
25. Mr. Muhammad Abdul Gafur, Registrar, AUST		Member-Secretary

Prof. Dr. Mazharul Islam, Director, IQAC and Prof. Md. Amirul Alam Khan, controller of Examinations were also present by invitation.

Prof. Dr. Muhammad Fazli Ilahi, Vice-Chancellor and Chairman of the Academic Council welcomed the Honorable Members of the Academic Council connected through Zoom in this pandemic situation. He thanked to Dr. Engr. Kazi Ali Azam specially who was connected from Sydney, Australia. Thereafter, the Chairman of the meeting quickly readout the items of agenda and displayed the same through his screen sharing.

Agenda 02001:
To confirm the minutes of the 19th meeting of the Academic Council held on 13 October 2019
While sharing the screen for showing the minutes of the 19th Meeting of the Academic Council, Prof. Dr. Md. Shahid Mamun, Head, Department of Civil Engineering pointed out that Minutes signed on 15 October 2019 was circulated among the Members' but soft version of the minutes of the Academic Council signed on 13 October 2020 was circulated through email which creates confusion.

Resolution:
The minutes of the 19th Meeting of the Academic Council held on 13 October 2019 and signed on 15 October 2019 was confirmed.

Agenda: 02002:
To consider all Undergraduate Curriculum of B. Sc. Engineering & B. Arch programs related to OBE, BAETE, IQAC and UGC

Before inviting Prof. Dr. Mazharul Islam, Director, IQAC to give a short delineation on Outcome Based

Page 1 of 11

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Education (OBE), the Vice-Chancellor stated that as per article 38 of the Private University Act-2010, the government has formed a Bangladesh Accreditation Council (BAC). Meanwhile, the Board of Accreditation for Engineering and Technical Education (BAETE) is following the Washington Accord. There are 20 signatory countries which are full members and if any of the country accredits any degree, it is implied that other signatory countries will recognize the degree. Currently, BAETE is a provisional member and in the process of becoming a full member. He also informed that the accreditation of the degrees by BAETE is very important for a University for international recognition.

Then, Professor Mazharul Islam gave a short description of OBE implementation-related activities at AUST since January 2019. He highlighted that the following documents have been finalized by the central committee headed by the Dean of Engineering and distributed among different programs of AUST mainly to fulfill the requirements of BAETE according to the new OBE-based system:

- Course Outline
- Course Specifications
- Final Examination Vetting Form
- Course Report
- CO-PO Direct Measurements
- Course File Checklist

It should be noted that Bangladesh Accreditation Council (BAC) formed recently, has already drafted "Rules of BAC Certification", which was shared with the Director of IQAC (Appendix-C) and there is an option for "Accreditation by Recognition" (Article 7 in the aforementioned document). It is expected that once BAETE becomes one of the signatories with full rights of participation in the internationally recognized Washington Accord, the programs accredited by BAETE in Bangladesh will be recognized by BAC.

It appears from the presentation of Prof. Mazhar that UGC is emphasizing the OBE-based Curriculum. UGC, the Regulatory Body, has sent templates on 22 June 2020 to revise all undergraduate programs as per templates of OBE. In the meantime, the Department of EEE has drafted its undergraduate curriculum as per OBE guidelines considering Program Educational Objectives (PEOs), Program Outcomes (POs) and Course Outcomes (COs), and other departments like MPE has already initiated OBE implementation.

Resolution:
After thorough discussions, it was decided in principle that all engineering departments will implement OBE in their curriculum following the BAETE accreditation manual, which is in accordance with the Washington Accord, in consultation with the Director (IQAC). Non-engineering Department/School will consult with the respective Deans of the Faculty and the Director (IQAC) to finalize the draft curriculum as per OBE requirements. The council appreciated the progress made by some departments and expect that the entire undergraduate curricula will be drafted as per OBE system and should be submitted in the next meeting of the Academic Council.

Agenda: 02003:
Approval of the published results of Semester Final and Improvement/Clearance/Carryover Examinations of Fall Semester 2018

The Vice Chancellor invited Prof. Md. Amirul Alam Khan, Controller of Examinations to present the result of Semester Final and Improvement/Clearance/Carryover Examinations of Fall Semester 2018 via screen sharing of Prof. Dr. Kazi A. Kalpoma, Head, Department of CSE and Director, IQAC. Members of the Academic Council expressed their concern on seeing a list of huge number of expelled students. Controller of Examinations explained that this type of list was not shown in the past but due to queries of the Academic Council Members; this was shown in the report of the published results of Semester Final and Improvement/Clearance/Carryover Examinations of Fall Semester 2018.

Resolution:
The published results of the Semester Final and Improvement/Clearance/Carryover Examinations of Fall Semester 2018 were approved (Appendix-A)

Appendix F: Official Notice regarding the 10 Tasks

আহ্ছানউল্লা ইউনিভার্সিটি অব সায়েন্স অ্যান্ড টেকনোলজি
AHSANULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
(Sponsored by the Dhaka Ahsania Mission and approved by the Government of the People 's Republic of Bangladesh)

No. AUST/C-42/R-703 Date: 15 June 2021

NOTICE

As per request of the Director, IQAC, this is for information of all concerned that the Faculty Members of the Architecture and Planning and Engineering Faculty, AUST are hereby requested to follow the OBE-related tasks (10-tasks) for smooth implementation of OBE (as mentioned in the infographics; copy attached):

By Order of the Vice-Chancellor,

Sd/-

(Dr. Md. Mosharof Hossain)
Registrar

Copy for information and necessary action to:

1. Dean of the Faculty of Architecture & Planning, AUST
2. Dean of the Faculty of Engineering, AUST
3. Heads of the Departments of Arch., CE, CSE, EEE, TE, MPE and A&S, AUST
4. Director, IQAC, AUST
5. Secretary, BoT, AUST
6. APS to Vice-Chancellor, AUST (For kind information of the Vice-Chancellor)
7. APS to Treasurer, AUST (For kind information of the Treasurer)

15-6-21
(Md. Muniruzzaman)
Deputy Registrar

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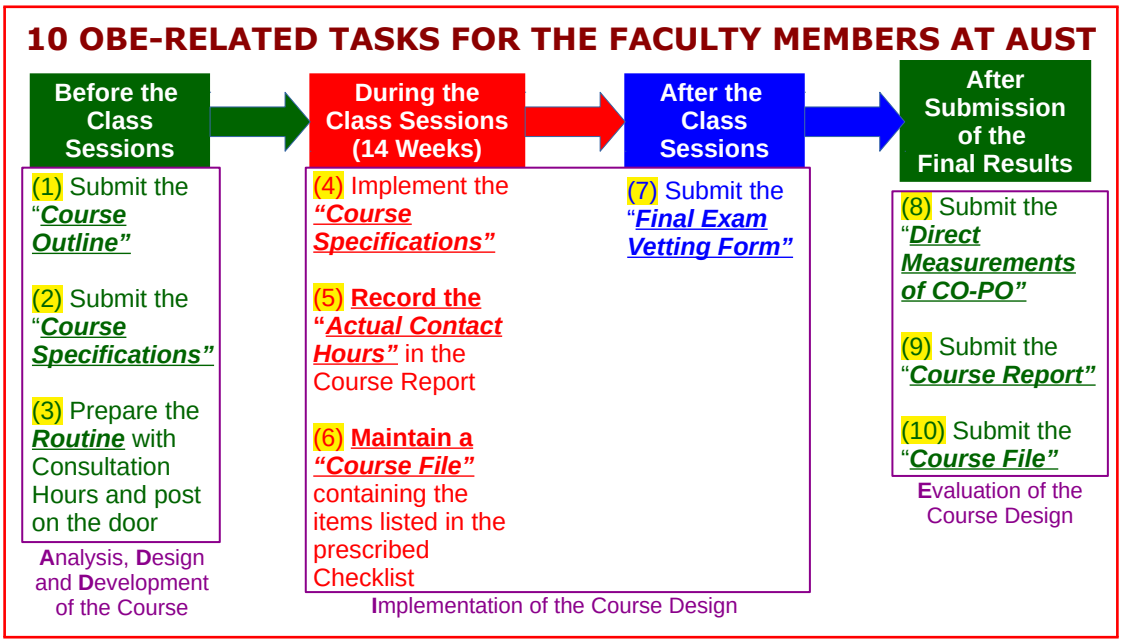
E-mail : info@aust.edu; Web : www.aust.edu


10 OBE-RELATED TASKS FOR THE FACULTY MEMBERS AT AUST
Before the Class Sessions
During the Class Sessions (14 Weeks)
After the Class Sessions
After Submission of the Final Results
(1) Submit the "Course Outline"
(2) Submit the "Course Specifications"
(3) Prepare the Routine with Consultation Hours and post on the door
Analysis, Design and Development of the Course
(4) Implement the "Course Specifications"
(5) Record the "Actual Contact Hours" in the Course Report
(6) Maintain a "Course File" containing the items listed in the prescribed Checklist
Implementation of the Course Design
(7) Submit the "Final Exam Vetting Form"
(8) Submit the "Direct Measurements of CO-PO"
(9) Submit the "Course Report"
(10) Submit the "Course File"
Evaluation of the Course Design