BAETE ACCREDITATION MANUAL 2017 – AN INTRODUCTION

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Outline

• Objectives of accreditation
• Shift in paradigm
• Who can apply
• New provisions
• Accreditation procedure
• Accreditation criteria
• Program specific criteria
• Evaluation
• Accreditation decision
• Renewal
Objectives of Accreditation

a. To ensure that graduates acquire a required set of attributes of national and international standards;
b. To assist all stakeholders in identifying specific engineering educational programs that meet national and international standards; and
c. To provide a mechanism for the continual improvement of existing engineering programs through evaluation and feedback.

Paradigm shift

Old paradigm
- Input based assessment
- Quantitative assessment
- CQI not important
- No formal channel for institution to disagree

New paradigm
- Outcome based assessment
- Holistic assessment
- Strong emphasis on CQI
- Institution can correct factual errors or can appeal
Who can apply?

- Program approved by an appropriate authority
- Program duration is four years
- Admission after at least 12 years of schooling
- At least one batch has graduated
- **Program follows Outcome-Based-Education**
- Minimum total credit hours is 130
  - (1 credit of lecture ≥ 750 minutes of formal contact)
  - (1 credit of lab ≥ 1500 minutes of formal contact)

New Provisions

- **Preliminary evaluation of new programs**
  Institution may request BAETE to evaluate strengths, weaknesses, opportunities of a new program when senior most batch in the 2nd year. No approval/disapproval
- **Deferment by a short period (< 1 year)**
  Recommended by evaluation team when a deficiency can be corrected quickly

**Accreditation from the date of application**
Steps in Accreditation Procedure

<table>
<thead>
<tr>
<th>Steps</th>
<th>Expected time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formation of evaluation team</td>
<td>3 weeks</td>
</tr>
<tr>
<td>Reservation from institution</td>
<td>1 week</td>
</tr>
<tr>
<td>On-site visit</td>
<td>12 weeks</td>
</tr>
<tr>
<td>Evaluation team report</td>
<td>3 weeks</td>
</tr>
<tr>
<td>Scrutiny by sectoral committee</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Fact correction by institution</td>
<td>1 week</td>
</tr>
<tr>
<td>Recommendation by sectoral committee</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Decision of the Board</td>
<td>16 weeks</td>
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</tbody>
</table>

Submit application
Evaluation Team formation
Any reservation about the Team?
Yes
Communicate reservation to reform the Team
No
Review SAR shows significant deficiencies
Yes
Recommendation decision is NA
No
Evaluation Team complete three-day onsite visit, exit meeting to present preliminary findings
Yes
Recommendation decision
No
Report submitted by the Evaluation Team
Yes
After scrutiny by Sectoral Committee, moderated report will be sent to the institution
No
Response of the institution on factual matters
Recommendation of the Sectoral Committee
Yes
Accreditation decision taken by the Board
No
Communicate decision to the institution
End of accreditation process
Report Board the deferment decision for record keeping
Accreditation Criteria

1. Organization and governance
2. Financial and physical resources
3. Faculty
4. Students
5. Academic facilities and technical support
6. Curriculum and teaching-learning processes

7. Program educational objectives
8. Program outcomes and assessments
9. Continuous quality improvement
10. Interactions with the industry
Accreditation Criteria

Program educational objectives

Vision/Mission of the institutes

Program outcomes (PO)

Course outcomes (CO)

Accreditation Criteria

Program outcomes and assessments

BAETE graduate attributes

<table>
<thead>
<tr>
<th>(a) Engineering knowledge</th>
<th>(g) Environment &amp; sustainability</th>
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</thead>
<tbody>
<tr>
<td>(b) Problem analysis</td>
<td>(h) Ethics</td>
</tr>
<tr>
<td>(c) Design</td>
<td>(i) Individual and team work</td>
</tr>
<tr>
<td>(d) Investigation</td>
<td>(j) Communication</td>
</tr>
<tr>
<td>(e) Modern tool usage</td>
<td>(k) Project management &amp; finance</td>
</tr>
<tr>
<td>(f) Engineer and society</td>
<td>(l) Life-long learning</td>
</tr>
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</table>
Accreditation Criteria

Continuous quality improvement (CQI)

Accreditation Criteria

Interactions with the industry

- Industry must participate in curriculum Development and CQI processes. Department should have an Industrial Advisory Panel
- Students must have opportunities to gather industrial experience
Program Specific Criteria

Curriculum for each program must satisfy the requirements stated in Chapter 6, *Program Specific Criteria*, of the manual. The list of programs in this chapter will be periodically updated as new programs are introduced by academic institutions.

Evaluation

- Based on the 10 criteria mentioned in Chapter 4 of the manual.
- Each criterion is holistically judged against the benchmark requirements in terms of
  - Compliance – satisfies requirement. No corrective measure needed
  - Concern – Broadly in compliance but needs improvement to avoid potential non-compliance
  - Weakness – Lacks strength of compliance. Requires corrective measures
  - Deficiency – Does not exist or is in an elementary stage. Compliance is required
Accreditation Decisions

- No deficiency, no weakness in any criterion
  - Accreditation for 6 years
- No deficiency, weakness not in more than 3 criteria
  - Accreditation for 3 – 5 years
- Deficiency in 1 or more criteria or weakness in more than 3 criteria
  - No accreditation (NA)

An NA program may reapply after 1 year

Renewal

- An accredited program needs to reapply at least 6 months before the expiry of current accreditation
- Application and evaluation processes for renewal are the same as the processes for new application
- SAR needs to describe how shortcomings identified in the previous evaluation have been addressed, particularly through CQI

Failure to apply/reapply on time may lead to graduation of non-accredited batches
Example of all batches graduating with accreditation

Example of some batches graduating without accreditation
Implementation

- New accreditation manual becomes effective from July 1, 2017.
- All programs applying for new accreditation or renewal after June 30, 2017, are required to apply as per the new manual.

Institutions requiring assistance in transition to OBE may request BAETE to organize workshops at their respective institutions