

COREN ACCREDITATION: TEAM, ASSESSMENT AND OUTCOMES

A WORKSHOP
ORGANIZED FOR
MEMBERS OF COREN COUNCIL AND E&T COMMITTEE
COUNCIL FOR THE REGULATION OF ENGINEERING IN NIGERIA
(COREN)

ON 08th MARCH, 2021



OUTCOMES OF THE WORKSHOP

At the end of this workshop, participants are expected to:

1. Understand the composition, selection and duties of COREN evaluation team.
2. Summarizes the qualifying requirements for an Accreditation visit.
3. Explain in detail the various outcomes of an Accreditation visit.
4. Explain in detail, the various roles of COREN Council in Accrediting Engineering Programme in Nigeria Universities.

**Section A:
COMPOSITION, SELECTION AND
DUTIES OF ACCREDITATION TEAM**

THE COREN ACCREDITATION TEAM

The COREN Accreditation Team to an institution shall consist of:

- ❑ 2 Evaluators per Programme (one of whom shall lead the team)
- ❑ Members of staff from COREN to provide secretariat and other support

Team Members shall consist of Engineers drawn from:

- The Industry and
- Academia

Covering the expertise and particular engineering discipline

SELECTION OF PROGRAMME EVALUATORS

1. Evaluators from academia shall be at the Professorial Cadre level
2. Evaluator from industry must have a minimum qualification of a First degree and should be on an equivalent of Grade Level 15 of the Civil Service.
3. COREN shall conduct periodic accreditation training workshops for all Accreditation team members and maintain an updated database.
4. Performance of evaluators previous assignments would be considered in subsequent selections

SELECTION OF PROGRAMME EVALUATORS

Qualities of Evaluators

Evaluators shall be highly knowledgeable and experienced engineers with the following qualities:

- a. High level of integrity
- b. Firmness and fairness
- c. Minimum of 10 years registration with COREN.
- d. Maintain an up-to-date practicing licence.
- e. Active participation in the activities of the Engineering profession.

The educational institution shall be informed on the composition of the visiting team.

The institution may object to the assignment of an Evaluator provided it submits proof of any verifiable conflict of interest with the assigned Evaluators.

The TEAM LEADER

The Team Leader

- Oversee an accreditation visit.
- Assign duties to each team member keeping in view the overall perspective.
- Responsible for the preparation of the consolidated team report
- Ensure timely submission of team report to E & T C for consideration.

There shall be only one team leader visiting an Institution even if the programmes ready for accreditation are more than one.

TEAM MEMBERS

- ❑ Two Evaluators are responsible for the evaluation of an individual programme.
- ❑ In situation where two programmes with substantial similarity in course contents are being offered within a Department, a single set of two / three Evaluators may handle both programmes.
- ❑ For programmes in emerging or inter-disciplinary areas, additional Evaluators can be included in the team depending on the need.

DUTIES OF EVALUATORS

1. The duties of Evaluators shall include evaluation with reference to the Accreditation criteria, through:
 - a) physical verification of infrastructure/ facilities,
 - b) Review of records and documentations, reports, minutes, etc
 - c) Interactions with administrators, academic staff, alumni, students/stakeholders
 - d) Other activities, which they find necessary for the accreditation exercise.
2. The Evaluators are also required to indicate the strengths, weaknesses, defects and concerns against each criterion in the Score Sheet.
3. They may capture photographs of documents as evidence when necessary.

Core Duties of COREN Staff shall include:

1. Provide all secretarial and any other service required for the success of the accreditation exercise.
2. Coordinate meeting between the visiting team members and the institution and ensure availability of relevant information.
3. Gives detailed briefing about the visit, institutional data and previous accreditation visit report (s) to the team leader.
4. Ensure the compilation of the visit report on the last day of the visitation for submission to COREN.
5. Provide necessary policy updates to the visitation team when and where required.

Participating COREN Staff in the accreditation of engineering programmes shall be expected to obtain the requisite certification.

ASSESSMENT GUIDELINES

Evaluation of programmes shall be evidence based in strict adherence to the criteria set in the BMAS and the OBE Accreditation Manual. This includes auditing and confirmation of documents submitted by the educational Institution.

In awarding marks and grades, Evaluators shall strictly adhere to the grading guidelines provided in:

- a) The OBE Accreditation Manual,
- b) Programme Evaluators' Manual and
- c) COREN BMAS.

DOCUMENTS FOR ACCREDITATION

The documents required for accreditation are specified in COREN publication titled:

- a) Outcome Based Engineering Education: Benchmark Minimum Academic Standards,
- b) Accreditation Scoring Criteria for Undergraduate Engineering Programmes in Nigerian Universities, published in 2017
- c) OBE Accreditation Manual,
- d) Self-Study Report (SSR) in Hardcopy
- e) Duly filled annexes provided in this Manual, in Hardcopy.
- f) Supporting Material/Documents, either in Hardcopy or in Digital form.

Items (d) and (e) are prepared by an engineering programme to be accredited. It is submitted at least 6 and 1 month respectively, before commencement of accreditation visit.

PUBLICATION OF ACCREDITATION STATUS

- ❑ **COREN shall regularly update and publish the list of all accredited programmes clearly indicating their current status:**
 - ✓ Hard copies and circulate to CODET
 - ✓ Electronic on COREN website
 - ✓ Share with FME and NUC
 - ✓ Share with major Employers

REVALIDATION OF AN ACCREDITED PROGRAMME

- The Institution proposing any change(s) to an accredited programme shall give detailed information to COREN under the following circumstances:
- ✓ An increase in the student enrollment.
 - ✓ A change in the scope of the programme objective /curriculum/nomenclature.
 - ✓ Addition of new stream/specialization in the programme's scheme of study.
 - ✓ Change of mode of delivery, etc.

Failure to do so may cause COREN to withdraw the accreditation.

COREN may then direct the Institution to apply for re-accreditation of the revised programme.

The application must be submitted at-least 6-months before the date of effective implementation of the proposed change.

ACCREDITATION PROCESS AND TIMELINE

☐ Day 1

i) Arrival and pre-accreditation meeting and ii) Reviewing of SSR.

☐ Day 2

i) Opening meeting with Dean of Engineering and Head of Institution, ii) - Inspection of common facilities (Library, Workshop, Drawing Studio, etc.), iii) Breaking of accreditation team into smaller teams for specific Engineering Programmes.

☐ Day 3

i) Use of information from SSR for assessment of programme, ii) - Visit of laboratories/workshops, iii) Check student and staff files, iv) Audit past question papers and marking guide, and students' laboratory reports, v) Inspection of past final year student project reports and prototypes, vi) Observe typical lectures as handled by lecturers, vii) Interview of students and staff, viii) Employers' rating of former students, ix) Score the Engineering Programme and write report, x) Plenary meeting of accreditation team members.

☐ Day 4

i) Meeting with faculty members to discuss findings of the accreditation teams,
ii) - Exit meeting with head of Institution to discuss findings.

☐ Day 5

i) Return of Team members to their Stations.

REPORT AND RECOMMENDATIONS

- ✓ The report of accreditation is prepared by the Accreditation Team
- ✓ The report must be in accordance with Programme Evaluators' Guideline
- ✓ The report shall be submitted to E & T Committee, COREN
- ✓ The report shall be submitted within 2 weeks after completion of an accreditation visit

STRUCTURE OF ACCREDITATION FEES AND EXPENSES

1. The Institution shall bear all the costs incurred for carrying out activities related to the approval and accreditation of a programme.
2. The total cost is paid to COREN before the commencement of the accreditation process.
3. Additional cost shall be incurred for postponement of accreditation exercise.

NB: The chargeable fee for various types of accreditation visits and other issues (i.e. Pre-Accreditation, Resource Verification, Accreditation, Re-Accreditation,, Change of Scope, and Appeal cases) shall be as prescribed by COREN from time to time.

Section C:
OUTCOMES OF AN ACCREDITATION VISIT

DEFINITION OF TERMS

Weakness	A criterion, policy, or procedure <u>lacks strength of compliance</u> leading to the compromised quality of the programme. Corrective measure is required to strengthen compliance prior to the next review.
Deficiency	A criterion, policy, or procedure <u>either does not exist or is in the elementary stage</u> . Compliance is required.
Concern	A criterion, policy, or procedure broadly <u>in compliance</u> but requiring <u>improvement</u> to avoid compromised quality of the programme or currently in compliance but the potential exists for the situation to change resulting in non-compliance in future. Progress on the corrective measures is required prior to the next review.
Opportunity For Improvement (OFI)	A criterion, policy, or procedure is in compliance and would be further strengthened by incorporating suggested measures/ improvements

OUTCOMES OF AN ACCREDITATION VISIT

□ Full Accreditation (FA):

- Programme substantially complied with the requirements in all areas of evaluation.
- Programme valid to run for 5 years
- Subject to maintaining and improving on the standards as may be verified employing regular monitoring through post-accreditation visitation.

□ Interim Accreditation (IA):

Programmes that do not meet substantially with the accreditation requirements.

- Interim Accreditation due to one or more weakness (IAw)-
 - ✓ A typical duration of \leq **1 year**
 - ✓ A **report** and **on-site visit** will be required to evaluate the **remedial actions** taken by the institution.

OUTCOMES OF AN ACCREDITATION VISIT...

- Interim Accreditation due to one or more deficiencies (IAd)
 - ✓ A typical duration of ≤ 2 year
 - ✓ A **report** and **on-site visit** will be required to evaluate the **remedial actions** taken by the institution.
- If the report submitted and site-visit conducted are adjudged satisfactory, the E&TC shall extend the accreditation status to a typical duration of five years (interim period inclusive).
- Otherwise, the programme gets a **Failed Accreditation (FA)** status.
 - ✓ asked to **stop** admitting new students,
 - ✓ graduates of such an unaccredited programme shall not be registered by COREN.

OUTCOMES OF AN ACCREDITATION VISIT...

□ **Deficiency is a serious issue:**

The institution running an Engineering Programme must provide, within 60 days of receipt of the Final decision on status of accreditation to the Institution:

- a) A summary of COREN's reasons for the interim accreditation
- b) Specific corrective actions the program intends to implement to maintain accreditation
- c) Share the summary of the COREN position to the students and staff of the programme, to promotion inclusiveness

Section D
QUALIFYING REQUIREMENTS FOR
ACCREDITATION VISIT

□ The eight (8) Qualifying Requirements:

1. Minimum 160 credit units of which 85 credit units must be Engineering Technology subjects
2. Final year project
3. Industrial Training/SWEP
4. Minimum of 6 full-time teaching staff
5. Teaching Staff: Student ratio of 1: 15 or better
6. External examiner's report
7. Programme Educational Objectives (slide 25 provide details)
8. Programme Outcomes (slide 25 provide details)

QUALIFYING REQUIREMENTS FOR ACCREDITATION VISIT

❑ **Programme Educational Objectives (PEOs):** describe the achievement expected of graduates of the programme **four to five years after graduation.**

- ✓ The formulation of the PEOs may be guided by vision and mission of the university, global, national and local needs, and long term goals. Lecturers for the programme must work continuously with other stake holders such as local employers, industries, the alumni, parents, etc., to define the PEOs.

❑ **Programme Outcomes (POs):** are statements of the knowledge, skills and behaviour that students are expected to have by the time **they graduate.**

- ✓ These relate to the knowledge, skills and attitude that the students acquire while progressing through the programme, specifically the programme should demonstrate that the students have acquired the **12 defined Graduate Attributes**

ENGINEERING GRADUATE ESSENTIAL ATTRIBUTES

□ The 12 Essential Attributes Expected of an Engineering Graduate

- 1) Engineering Knowledge:
- 2) Problem Analysis:
- 3) Design/Development of Solutions:
- 4) Investigation:
- 5) Modern Tool Usage:
- 6) The Engineer and Society:
- 7) Environment and Sustainability:
- 8) Ethics:
- 9) Individual and Team Work:
- 10) Communication:
- 11) Project Management:
- 12) Lifelong Learning:

QUALIFYING REQUIREMENTS FOR ACCREDITATION VISIT...

- ❑ A summary of the adopted initiatives through appropriate and diverse assessment methods to demonstrate that the programme complies with the PEOs and POs reflecting:
 - ✓ Knowledge profiles
 - ✓ Complex problem solving and
 - ✓ Complex Engineering activities as indicated in Tables 1, 2 and 3 Annex A of the manual) as a Self-Study Report (SSR) to be submitted to COREN.

- ❑ **Failure to meet any one of the qualifying requirements means that the programme shall not be assessed for accreditation.**

QUALIFYING REQUIREMENTS FOR ACCREDITATION VISIT...

□ Engineering programme must conform with the following benchmarks:

(a) Well-defined and published POs

(b) Mapping of POs to PEOs

(c) Teaching-learning and assessment methods appropriate and supportive to the attainment of POs.

(d) Quality of assessment mechanism to evaluate achievement levels for all the POs by each student.

(e) Process in place by which assessment results are applied to further refine the assessment mechanism and/or redefine the programme outcomes, thus leading to continuous improvement of the programme.

QUALIFYING REQUIREMENTS FOR ACCREDITATION VISIT...

For a programme going for Pre-accreditation and Accreditation visitations, the SAR shall include:

- ✓ Self-assessment of the concerns listed in the previous accreditation, substantiated with evidences of actions taken to close these concerns, and results achieved from the actions.
- ✓ A summary of the concerns and action taken closing these concerns in a tabular form.
- ✓ Updates on the fulfilment of the eight (8) Qualifying Requirements.

QUALIFYING REQUIREMENTS FOR ACCREDITATION VISIT...

- ❖ Updates on any changes in information, data, statistics, status, policies, etc., and report on CQI activities related to the TEN (10) accreditation criteria.

Criterion 1 - Programme Educational Objectives (PEOs)

Criterion 2- Programme Outcomes (POs)

Criterion 3- Course Learning Outcomes (CLOs)

Criterion 4 - Curriculum and Learning Process

Criterion 5 - Students

Criterion 6 – Continuous Quality Improvement (CQI)

Criterion 7 - Staffing

Criterion 8 - Physical Facilities and Infrastructures

Criterion 9 - Institutional Linkage and Community Services

Criterion 10 - Institutional Support and Funding

- ❖ Any other related matters to be highlighted in any section/criteria.

Each accreditation criterion serves to assess:

- a) A principal feature of the institutional activities
- b) Overall programme's effectiveness.

Each of the 10 Criteria is described in terms of:

- ✓ Quality attributes, amenable to a substantially objective and qualitative assessment.

Section E :
ROLES OF COREN COUNCIL IN ACCREDITATION

Roles of COREN COUNCIL

1. Participate in the development/ review of PEOs (through the E & T C)
2. Ensure adherence to the best practices towards achievement of the PEOs and POs (through the E & T C)
1. Provision and enforcement of relevant benchmarks and regulatory framework to sustain and enhance the quality of the programme.
2. Organize various sensitization programmes to promote OBE best practices and quality assurance.
3. Ratification of Accreditation reports recommended by E & T Committee.

References

- *COREN OBE Accreditation Manual (2019)*
- *Outcome-based education, Wikipedia,* (http://en.wikipedia.org/wiki/Outcome-based_education).
- *TOWARDS EAC ACCREDITATION IN 2009 - Direct Assessment of Program Outcomes, Fakulti Kejuruteraan Elektrik, Universiti Teknologi Malaysia* (<http://encon.fke.utm.my/OBE.ppt>).
- T. A. Grossman, *Shifting the Focus from Teaching to Learning: Learning Objectives for OR Course Design, Masagung School of Management, University of San Francisco* (<http://meetings.informs.org/TMSWorkshop/TMS04/presentations/Grossman.ppt>).
- S. S. Chong, *Outcome-based Education (OBE), 2008, UTAR* (<http://www.utar.edu.my/fes/file/OBE.pdf>).
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*Thank
you*

