GUIDELINES FOR SELF ASSESSMENT REPORT (SAR)/ ACCREDITATION APPLICATION

by

Professor Emeritus Dr Mohammad Ali Maud

November 2023

بِسْمِ ٱللَّهِ ٱلرَّحْمَـٰنِ ٱلرَّحِيمِ

Self-assessment by The Institution of Its Computing Program

- A Self-Assessment Report (SAR) is an account of the institution's plan, implementation, assessment and evaluation of the program under accreditation.

- It reflects the processes with results obtained and their analyses used for improvement of quality at all levels of the program's activities.

- The emphasis shall be on the qualitative description of each aspect and criterion, and how these meet the standards and expectation as set out in this Manual.

NCEAC Accreditation Automation System (AAS)

- AAS provides a convenient platform to submit necessary information required in completion of the Self-Assessment Report (SAR) of the program.

- AAS which will generate a SAR in the standardized pdf format. The same would be accessible to the applying institute.

- The institute can then apply for accreditation by the click of a button on AAS.

NCEAC AAS Portal

Focal Persons (FPs) of Institutes accessing the portal will see the following headings:

a. **Dashboard**: Statistics of the institute as available with NCEAC from past accreditation visits and the number of applications received from the institute, if any. The dashboard also gives the steps to prepare the SAR/ Accreditation Application.

b. **Your Profile**: Profile of the Focal Person (FP) nominated by the institute.

c. **Institute Profile**: It has further subheadings of: General Information, Contact Information and Other Contact Information.

NCEAC AAS Portal (Cont'd)

- Once this information is provided and saved, the FP will be given access to enter other required data.

- On gaining access to other headings, FP for convenience, may fill the data as per the sequence followed in subsequent slides.

Department and Programs

1. View Departments.

2. Add New Department:
   - Name.
   - Date of initiation and category of the department is to be added.
   - Details of the Head of Department.

Department and Programs (Cont'd)

3. Add new Program
   - Name of program.
   - Type of program.
   - Department offering the program.
   - Session information: Whether single or dual intake per year, whether offered in morning and evening shifts, or both.
   - Total program Credit Hours.
   - Program starting date.

Department and Programs (Cont'd)

4. View Programs

- View/ Edit Program Objectives (POs).
- Edit or Add POs.
- Map POs with Graduate Attributes (GAs). Ten GAs, as required by Seoul Accord, have been incorporated in AAS.

Faculty Directory

- List of departments added by the FP will be visible.

- After selecting the required department, FP will be required to add faculty information as stated in AAS.

Course Catalog

List of programs added by FP will be visible. On selecting a program, facility to add courses will be accessible. The following information for each course is to be provided:

i. Course Name.
ii. State the year of HEC's NCRC recommended curriculum being followed.
iii. Course Type. That is whether core, elective or supporting.
iv. Select the Linked HEC NCRC recommended course.
v. Credit hours of the course.
vi. Select the GAs being mapped to the course. The mapping of Course Learning Outcomes (CLOs) to GAs is decided by the course instructor/ department.

Note: Theory and lab portions of a course are treated as separate courses.

Student Directory

Two options will be visible. One option is whether the students to be added are current students and the second option is whether the students to be added have already graduated.

- On selecting “Currently Enrolled Students”, programs entered by the institute become visible.
- On selecting a program, a button titled “Add new batch/ Entry” will be visible.
- FP will add the required batch information.
- After creation of the batch, the FP has the option to upload an excel file in the specified format or add individual students.
- Data uploaded via excel may have anomalies. Student data with anomalies are shown in “Pending student’s” column on AAS.
- FP has the option to edit a pending student and make necessary corrections.

Student Directory (Cont'd)

- On selecting "Graduated Students", same information is to be filled as required for currently enrolled students with additional information of CGPA earned on graduation.
- A student graduating later than his/her own batch may also be specified in AAS.
- A submit button must be pressed by FP after entry of the graduating batch information.
- The FP has the option to change the status of data entered for currently enrolled students to graduated students.

Student Directory (Cont'd)

- The batches entered by the FP at the time of preparation of SAR/ Accreditation Application will be shown as "Pending" until the SAR/ Accreditation Application is submitted by FP to NCEAC.

- On submission, the status is changed to "Submitted with Application".

- After accreditation, status of "Accredited" will be added.

- On marking Graduated by the FP, the status of "Graduated" will also be visible for the batch.

SAR/ Application Filing and Processing

- On selecting this option, FP will see the list of applications submitted or pending through AAS. An option to select “New Application” will also pop up. FP submitting a new application will select this option.

- The program for which accreditation application is to be submitted will be selected by the FP. Programs added in earlier options will become visible.

SAR/ Application Filing and Processing (Cont'd)

- FP will only be able to choose the type of visit if POs have been added for the program.

- In case of choice of Accreditation Visit, mandatory information on the batches for which accreditation is being sought are to be added.

- In case of Zero Visit, faculty must be added in Faculty Directory. A shortened SAR/ Application must be submitted through AAS where the related criteria in SAR/ Application Filing will be visible to FP for filling and submission.

Criterion 1: Program Objectives (POs)

- State the vision and mission of the institution and/or faculty.
- Describe the process of formulation, improvement and approval of the POs.
- *The POs have already been entered in the "Departments and Programs" Tab by the FP under "View Programs". The SAR document generated by AAS will have these POs listed under appropriate head.*
- Describe how POs are consistent with the vision and mission of the institution and/or faculty and stakeholders' requirements and state whether they are approved by the institution's statutory bodies.
- Describe the processes used to evaluate the achievement of POs.
- Describe how the results obtained from evaluation are being used to improve the effectiveness of the program.

Criterion 2: Graduate Attributes (GAs)

- State the university/ HEIs body which has approved the GAs.
- Describe how the GAs encompass the requirements of Section 3.2.2 of the NCEAC Manual.
- Describe the processes used to establish and review the GAs, and the extent to which the program's various stakeholders are involved in these processes.
- *The FP has already mapped CLOs to GAs in the "Add new course" option available in AAS under "Course Catalog". The SAR document generated by AAS will show the mapping of Courses to GAs.*

Criterion 2: Graduate Attributes (GAs) (Cont'd)

- Describe the data gathered and the results of the assessment of GAs.
- Explain how the assessment results are applied to further develop and improve the program.
- Describe the materials, including students' work and evidence of complex engineering problems/ activities, problem-based learning (PBLs), open ended labs (OELs), class projects (CPs), and FYPD that demonstrate achievement of the GAs.
- Provide information of Complex Problems/Complex Activity exercised particularly in Breadth and Depth courses along with few examples indicating relevant domain(s) towards the attainment of mapped GAs.

Criterion 3: Curriculum and Learning Process

- Describe if the curriculum is in compliance with program specific HEC curriculum guidelines, that is, it is spread over 8 semesters covering at least 130 credit hours of course work. And covers required breadth, depth and content distribution.

- Describe how does the curriculum provides adequate exposure to Complex Problems (CPs) and design activities.

- Describe the available program specific well-equipped labs to supplement theoretical knowledge/ classroom learning.

- Describe how lab work and its assessment mechanism supports attainment of the required skills.

Curriculum and Learning Process (Cont'd)

- State whether Course Learning Outcomes (CLOs) are defined for all courses and are mapped to relevant GAs.
- Describe if there is any formal involvement of industry in curriculum development / revision.
- Describe employment of other aspects (supplementary tools and practices) of student learning such as tutorial system and seminar / workshops, etc. to enhance student learning, in addition to regular classroom interaction and lab experimentation. Minimum expectation is that faculty office hours are announced and adhered to.
- Describe exposure to cooperative learning through supervised and mandatory internship program with formal feedback from the employer.

Curriculum and Learning Process (Cont'd)

- Elaborate if sufficient opportunities to invoke intuitiveness and originality of thought through Problem Based Learning (PBL), Design Projects and Open-Ended labs is provided to the students.

- Describe how is Assessment of various learning outcomes (GAs/CLOs) employing appropriate direct / indirect methods is carried out.

- Describe whether the Final Year Design projects (FYDP) include complex problems and design of systems, components or processes integrating core areas and meeting specified religious, cultural and societal aspects.

- Describe how the FYDP project deliverables and the reports are graded according to well-defined mechanism.

Criterion 4: Students

- State whether the requirements and process for admission of students to the program and the annual intake are consistent with NCEAC policies.
- Discuss the policies and processes for credit transfer/ exemption.
- Discuss mechanism for providing guidance to students on academic, career and aspects pertaining to wellness, student discipline.
- Describe mechanism and adherence to the policies dealing with harassment and plagiarism cases.

Students (Cont'd)

- Discuss students' workload, class sizes for theory as well as laboratory sessions and completion of courses.

- Discuss students' activities and involvement in student organizations that provide experience in management and governance, representation in education and related matters and social activities.

- Discuss Key Performance Indicators (KPIs) to demonstrate students' performance in relation to GAs.

Criterion 5: Faculty and Support Staff

- Discuss the strength and competencies of the academic staff in covering all areas of the program.
- Discuss how the overall staff workload enables effective teaching, student-staff interaction, student advising and counseling, institutional service and research activities, professional development and interaction with industry.
- Discuss processes for faculty development, training and retention.
- Discuss the sufficiency and competency of technical and administrative staff in providing adequate support to the educational program.

- *Undergraduate faculty course load information is dynamically generated on AAS from the data provided by the institute in its application. However, FP will link faculty members to courses being taught in Addendum "A". Faculty members teaching Postgraduate course are required to be entered in Addendum "B".*

Criterion 6: **Facilities and Infrastructure**

- Provide information on facilities and infrastructure as asked in AAS.

Criterion 7: Institutional Support and Financial Resources

Reply to financial resources and institutional support questions listed in the AAS SAR generation facility for the last five years from the date of application.

Criterion 8: Steps to Improve Quality

Discuss the mechanism for the following:

- Program planning.
- Curriculum development.
- Curriculum and content review.
- Responding to feedback and inputs from stakeholders including industry advisors, students and alumni.
- Tracking the contribution of individual courses to GAs.
- Tracking outcomes of performance through assessment, including rubrics; reviewing of POs and GAs to improve quality.

Steps to Improve Quality (Cont'd)

Discuss the implementation plan based on the observations of the last accreditation visit and the remedial actions taken.

- Evidence on the participation of faculty members and support staff as well as students in the improvement of the program.
- Evidence on the development of academic staff through opportunities in further education, industrial exposure, as well as research and development.
- Policies, internal processes and practices that are in place at all levels within the institution relating to the accreditation criteria as stated in Chapter 3 of this Manual.

Criterion 9: Industrial Linkages

- Describe the existence of active industry advisory board/ committee and formal involvement of industry in development and review of POs.
- Discuss opportunities for collaborative design projects and supervised internship for students.
- Discuss different HEI policies to encourage faculty and students to engage with the industry to have industry-sponsored projects.

Addendum “A”

- FP will link faculty members to courses being taught in this Addendum.

  Courses whose CLOs have been mapped to GAs in “Course Catalog” Tab will only be visible. Institutes which have earlier applied to NCEAC for accreditation without CLOs to GAs mapping are required to submit CLOs to GAs mapping by revisiting “Course Catalog” Tab to make course information visible.

- Undergraduate faculty course load information is dynamically generated on AAS only after the FP has completed linking the courses to faculty members.
- In addition, courses taught to all sessions under progress during Fall and Spring semesters and names of faculty members teaching these courses are also to be included.

Addendum “B”

Faculty members teaching Postgraduate courses are required to be entered in this addendum.

الحمد لله