CRITERIA VERIFICATION FORM (CVF) AND BUILT-IN RUBRICS

By
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COMPLIANCE LEVELS

Level		Explanation	Score
G	GOOD	Exceeds Compliance Requirements	5
S	SATISFACTORY	Compliant	4
C	CONCERN	Complies with Room for Improvement	3
W	WEAKNESS	Partially Compliant	2
D	DEFICIENT	Not Compliant	0

PROGRAM EVALUATOR'S COMMENTS

Level	Evaluator's Comments
G	No comments required
S	No comments required
C	Choice from rubrics or Evaluator's own comment
W	Choice from rubrics or Evaluator's own comment
D	Choice from rubrics or Evaluator's own comment

Criterion-1: Program Objectives (POs)

a.	The institution has defined program objectives (POs) which are consistent with the vision and mission of the institution.	D: Program objectives are not defined.
		W: POs are defined but not approved by relevant statutory bodies
b.	There is a process in place to evaluate the attainment of POs and the institution has set some Key Performance Indicators (KPIs) for this purpose.	D: No process in place to evaluate attainment of POs or POs are not defined.
		W: Process is defined but not practiced.
		C: KPIs are not defined or not adhered to.
c.	There is a process in place by which the institution takes steps to review its program considering POs attainment.	D: POs are not defined.
		W: The institution offering the program does not gather data to re-evaluate itself.
		C: Assessment data gathered, but no analysis and evaluation carried out; OR Corrective actions based on evaluation results are not identified and no implementation plan worked out
d.	There exists a mechanism that involves alumni, faculty and industry in formulation and review of POs	D: POs are not defined or no mechanism defined for this purpose.
		W: Mechanism exits but it is not practiced..
		C: Mechanism exists and it is practiced, but not rigorously.

Criterion-2: Graduate Attributes (GAs)

a.	Graduate Attributes are clearly defined encompassing attributes outlined in Section D.5 of Seoul Accord Document. These have been adopted by institution's relevant statutory body.	D: Not defined at all
		W: Defined but not approved from the concerned Statutory Bodies
		C: Insufficient justification of fulfillment of Graduate Attributes.
b.	There is a well-defined process for the periodic review and revision of GAs.	D: No process in place to evaluate attainment of GAs or GAs are not defined.
		W: Process is defined but not practiced.
		C: Room for improvement.
c.	The institution has mapped its GAs to the POs of the program.	D: GAs not defined, or GAs defined but not mapped to POs.
		W: The mapping has not been approved by the relevant statutory body.
d.	There is a documented process for the assessment and evaluation of GAs attainment	D: GAs not defined or no process for assessment or evaluation of GAs..
		W: The process is there but not practiced.

Criterion-3: Curriculum And Learning Process

a.	Curriculum is in compliance with program specific HEC curriculum guidelines. It: 1. Is spread over 8 semesters covering at least 130 credit hours of course work. And it: 2. Covers required breadth, depth and content distribution.	D: Curriculum deviates significantly from HEC curriculum guidelines OR essential breadth and depth courses are missing from the curriculum
		W: The course files reveal that though the program does include the necessary Depth & Breadth courses in its curriculum, but in actual practice, the coverage of Depth contents is very shallow; OR Coverage of Design aspects / projects are not adequate.
		C: Coverage of breadth contents is not adequate.
b.	Adequate exposure to Complex Problems (CPs) and design activities	D: No evidence of exposure.
		W: Limited exposure to CPs in courses and labs; OR Limited exposure to CPs in FYDPs.
		C: Reasonable exposure in FYDPs but not adequately covered in some courses/labs

Criterion-3: Curriculum And Learning Process (Cont'd)

c.	Availability of program specific well-equipped labs to supplement theoretical knowledge/class room learning.	D: Essential Labs are missing or seriously deficient in the required lab equipment.
		W: Most of the labs are in place, some are deficient in equipment or numbers of workstations in most of the labs are not adequate to meet student demands.
		C: All the required labs are there, a few have limited number of workstations hindering adequate hand-on exposure.
d.	Lab work and its assessment mechanism supports attainment of the required skills	D: There is hardly any opportunity to develop the required skills OR no appropriate mechanism in place to assess the skill attainment level.
		W: The assessment mechanism lacks rigor or appropriateness (lacking Lab CLOs with Rubric based assessment mechanism)
		C: One or two labs lack the focus on developing relevant skills; OR Students are offered limited hands-on opportunity to develop the required skills; assessment mechanism is generally not appropriate

Criterion-3: Curriculum And Learning Process (Cont'd)

e.	Course Learning Outcomes (CLOs) are defined for all courses and are mapped to relevant GAs.	D: CLOs not defined for most of the breadth and depth courses.
		W: CLOs not defined for some courses with inappropriate mapping to relevant GAs.
		C: CLOs' are not clearly defined OR inappropriate mapping to GAs.
f.	Formal involvement of industry in curriculum development / revision	D: No involvement from industry
		W: Process in place but not regularly practiced
		C: Informal industry involvement at program level.
g.	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.	D: No employment of other aspects of student learning, including no regular office hours or time plan
		W: Formal mechanism is there but not practiced.
		C: Some aspects of student learning are practiced.

Criterion-3: Curriculum And Learning Process (Cont'd)

h.	Exposure to cooperative learning through supervised and mandatory internship program with formal feedback from the employer	D: No internship program in place.
		W: Only limited Internships are arranged, no feedback mechanism is evident.
		C: Internships are arranged, with some feedback but no analysis for program improvement.
i.	Sufficient opportunities to invoke intuitiveness and originality of thought through Problem Based Learning (PBL), Design Projects and Open Ended labs.	D: No such opportunities exist
		W: Few instructors practice PBL and/or give design projects in courses but not formalized by the department.
		C: The formalized use of Design projects, Open-Ended labs and PBL is there but practiced in few breadth and depth courses
j.	Assessment of various learning outcomes (GAs/CLOs) employing appropriate direct / indirect methods.	D: Inappropriate Assessment methods used for evaluation of CLOs/GAs.
		W: Assessment is usually appropriate but at times lacks rigor..
		C: Use of inappropriate rubrics for assessment of skills.

Criterion-3: Curriculum And Learning Process (Cont'd)

k.	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.	D: FYDPs could not be justified as an apex culmination of CPs.
		W: FYDPs are CPs of medium difficulty level.
		C: FYDPs are mostly Review based instances with no focus on real world implementation; OR FYDPs are conducted in groups of more than 4 students; as a result, it is not possible for each student to rigorously work on his subtask and demonstrate the attainment of GAs mapped to the FYDP.
l.	FYDP project deliverables and the reports are graded according to well-defined mechanism.	D: FYDP project deliverables and reports are not assessed using a well-defined mechanism of rubrics and comprehensive guidelines; as a result, the quality of deliverables and reports is unsatisfactory.
		W: FYDP has an unsatisfactory assessment mechanism of rubrics for project deliverables and reports; as a result, it is not possible to cross examine the evidence about the attainment of GAs mapped to FYDP and the quality of reports is only marginally acceptable.
		C: FYDP has an assessment mechanism of rubrics and SOPs for project deliverables and reports; yet the evidence of attainment of GAs mapped to FYDP is not available and the quality of reports is not satisfactory and requires further rigorous proof editing by the supervisor and committee.

Criterion-4: Students

a.	Admission Criteria meets / exceeds minimum eligibility criteria prescribed by NCEAC Regulations.	D: Not in compliance with NCEAC regulations.
b.	Annual intake is in-line with the maximum intake allowed NCEAC.	D. Not in compliance with NCEAC regulations.
c.	Well documented policy on transfer of students only from other accredited program restricting transfer of less than 50% of credit hours required for the degree.	D: Students transferred from non-accredited programs; or student transfer allowed from accredited program but with more than 50% Cr. Hrs. transferred.
		W: No documented transfer policy
		C: Policy in place but not strictly adhered to in matters other than necessitating award of a Deficiency.
d.	Availability of designated student counselors to advise / counsel students regarding academic / career matters and provide assistance in managing their health, financial, stress, emotional and spiritual problems.	D: Limited provision available but hardly practiced for academic and career counseling of students.
		W: Student counseling available but limited to academic matters.
		C: Student counseling effective in limited areas.

Criterion-4: Students (Cont'd)

e.	Manageable class-size (maximum of 50 for theory classes) and lab groups (2-3 students per workstation for hands-on type experiments, larger groups may be manageable for demonstration type)	D: Unmanageable class size / lab groups.
		W: Poorly manageable class size /lab groups.
		C: Manageable class size/lab size but exceeding desired limits
f.	Manageable semester academic load (i.e. 15-18 credit hours on the average)	D: Unmanageable semester academic load.
		W: Poorly manageable semester academic load
		C: Manageable semester academic load but exceeding desired limits
g.	Completion of courses as evident from course-files and through student feedback	D: No mechanism exists for assessing course completion.
		W: Course completion in majority of courses is less than 90%
		C: Course completion in a few courses is less than 90%.
h.	Students' participation in national / international exhibitions and / or competitions, and facilitation by program for such participations	D: No participation in any event.
		W: Limited participation
		C: Participation in national events but not in international events

Criterion-4: Students (Cont'd)

i.	Quality of process to evaluate student performance and suggest / take corrective measures	D: No process is in place.
		W: Process outlined but never followed.
		C: Assessment is carried out but limited corrective actions are taken
j.	How the program is inculcating community services	W: No such provision exists; OR No contact hour(s) arranged/ practiced.
		C: Informal mechanism requiring community service exists.

Criterion-5: Faculty and Support Staff

a.	Faculty Strength as per NCEAC guidelines.	D: Less than the strength mandated in NCEAC rules.
		W: Strength is adequate but qualifications are inadequate.
b.	Balanced qualified faculty as specified in NCEAC guidelines.	D: Less than required PhD qualified faculty members..
		W: Insufficient faculty in core areas of the program
		C: Insufficient faculty in any one core area of the program

Criterion-5: Faculty and Support Staff (Cont'd)

c.	Formal mechanism for faculty training and mentoring on pedagogical skills including OBE concepts and implementation methodologies.	W: Limited formal training but not organized by HEI
		C: Formal training but not covering all areas.
d.	Effectiveness of faculty development program to ensure their professional growth and retention.	D: No faculty development program
		W: Limited faculty development program
		C: Faculty Development Program is in place but not effective for faculty retention/ growth
e.	Faculty workload as specified in NCEAC guidelines.	D: Unmanageable faculty workload
		W: Faculty Workload though manageable but higher than the prescribed range on the average
		C: Faculty workload is balanced but no facilitation to young faculty for pursuing higher studies.

Criterion-5: Faculty and Support Staff (Cont'd)

f.	Course files maintained as per NCEAC guidelines	W: Course files are not maintained for majority of courses
		C: Course files though maintained but lack essential information, analysis regarding completion of contents and attainment of learning outcomes (GAs)
g.	Continuation of faculty research, publications, and sponsored projects from industry/donor agencies, etc.	W: No faculty research/ publications/ sponsored project in recent years
		C: Limited faculty research/publications/ sponsored project in recent years OR No funding from external donor agencies/industry
h.	Qualified support staff in the program to look after the administrative functions of the program and to look after laboratories.	W: Inadequate support staff.
		C: Adequate support staff but not qualified to look after laboratories.

Criterion-6: Facilities and Infrastructure

a.	Adequacy of teaching and learning facilities, e.g. classroom environment and availability of various teaching aids, etc.	W: Essential infrastructural facilities is very limited in relation to the student population
		C: i) Infrastructural facilities are reasonable, but not adequately maintained; OR ii) Most of the facilities are adequate but some have capacity/adequacy issues; OR iii) There is very limited availability of teaching aids in the classrooms / laboratories; OR iv) Teaching learning environment is not very conducive.
b.	Provision of program specific labs (as per curriculum), workshops, and associated lab equipment for complementing the class / theory work.	D: The program does not have all core labs required for the program, though labs are being conducted through some arrangements; OR The labs are inadequate in terms of availability of essential laboratory equipment.
		W: Lesser number of workstations/ equipment in the labs, thus hindering sufficient hands-on opportunity to the students;
		C: Non-functional and/or very old equipment of limited use; OR generally congested lab spaces. OR most of the Labs being overly committed with very few free slots available for students to make up for their missed lab sessions/experiments or to work on their own projects, space inadequate

Criterion-6: Facilities and Infrastructure (Cont'd)

c.	Adequacy of library resources and facilities.	D: Inadequate library resources.
		W: Congested Library Space with inadequate seating capacity; OR none or very limited printing/copying facility; OR No internet connectivity and/or No computers for online access; OR No Digital Library and e-books; OR Too few program specific technical books and Journals.
		C: Too few computers and/or very slow internet connectivity. OR Limited number and variety of latest Reference/ Text books (i.e. published in last 5 years) for the program.
d.	Provision of sufficient computing facilities and internet access / resources allocated for the program.	D: No computing facilities and no internet access for faculty / students
		W: Limited computing and internet access
e.	Provision and effectiveness of consulting and career placement services provided to the students	D: Does not exist
		W: Exist but with very limited scope and resources.
		C: Available but not efficient, rare contribution

Criterion-6: Facilities and Infrastructure (Cont'd)

g.	Adequacy of support facilities such as hostels, sports and recreational centers, health care centers, student centers, and transport facilities	D: No concept/existence of any support facilities; neither is there any plan for acquiring these.
		W: Inadequate facilities; planned for future but not yet approved.
		C: Support facilities are available, some adequate and some inadequate; however, their provision / extension is planned and approved.
h.	Adequacy of arrangements made / measures taken to ensure work-place safety (EHS concerns) in general, and while performing experiments in the labs. in particular	D: No awareness about safety, Highly unsafe environment, Not even basic fire-fighting equipment and/or emergency exits.
		W: Conscious about workplace safety and several safety measures in place. However, no formal policy/procedures for EHS documented; OR inadequate safety measures inside / around laboratories.
		C: EHS concept/SOPs exist but occasionally / limited practiced. (No evidence) OR safety measures available in labs but needs improvement and proper maintenance.

Criterion-7: Institutional Support and Financial Resources

a.	Adequacy of institutional financial resources to ensure program's sustainability and meeting of recurring as well as developmental requirements.	D: Unsustainable Institutional financial resources
		W: Hardly meeting recurring budgetary expenses AND barely minimal developmental budgetary allocations / roadmap
		C: Adequacy of financial resources for the recurring expense But Developmental budget for the program is not adequate / allocated
b.	Evidence of continued financial commitment in the form of increasing endowment and recurring /development budget since last accreditation visit.	W: Financial health in terms of Endowment fund, investments, etc. has gone down as compared to that at the time of last accreditation visit; OR Inadequate recurring/ development budget.
c.	Provision of funding for R&D pursuits and presentations/publication of research papers	D: No provision of funding for UG projects
		W: Inadequate Funding, and that too mostly not utilized because of no motivations / encouragement for Publications and Research projects
		C: Some funding for R&D pursuits and publications (in the last 2-3 years)

Criterion-8: Steps to Improve Program

a.	Documented and institutionalized policies to review POs, GAs and CLOs after every semester/ academic year based on previous years' experience and feedback	D: Such a process is not in place
		W: Policies are defined and institutionalized but not practiced.
		C: Review process is well documented, institutionalized and practiced at all levels, but some of the corrective actions are not taken.
b.	Actions taken / implementation plans worked out to address the concerns/weaknesses identified in the last accreditation visit report.	D: No actions are taken and no implementation plans are evident.
		W: Only partial actions are taken and/or implementation plans are unsatisfactory.
c.	Improvement in Faculty Strength / Qualifications since last accreditation visit, if required.	W: Insufficient improvement in Faculty Strength/Qualifications.
		C: Partial improvement in Faculty Strength/Qualifications since last accreditation visit.
d.	Continuation of Faculty Publications, R&D and Consultancy activities	D: No publications / R&D /Consultancy projects since last visit
		W: Limited research publications / R&D / consultancy activities.
		C: Lack of Journal publications and /or funded R&D / consultancy activities.

Criterion-8: Steps to Improve Program (Cont'd)

e.	Addition of any new facilities, i.e. infrastructure, lab equipment, teaching aids, etc. to assist in the attainment of program objectives / outcomes, since last accreditation visit	W: No addition of new facilities.
		C: Limited addition of new facilities.
f.	New initiative(s) taken since last accreditation visit including content delivery, assessment and evaluation processes, etc.)	W: No new initiatives taken.
		C: No significant new initiatives taken.

Criterion-9: Industrial and Int’l Linkages

a.	Existence of active Industrial Advisory Board/Committee	D: No Industrial Advisory Board exists.
		W: Industrial Advisory Board exists but is inactive.
		C: Meets irregularly.
b.	Formal mechanism for seeking feedback from Industry and its analysis for the attainment of POs	D: No formal mechanism in place.
		W: The formal mechanism is in place but the assessment tools / methods do not correlate with the POs.
		C: The formal mechanism exists and its assessment tools / methods also correlates with the POs; however, effective analysis not periodically performed.
c.	Opportunities for students to acquire industrial experience via internship and existence of Industry-Liaison office	D: No dedicated Industry-Liaison office exists.
		W: A dedicated Industry-Liaison office exists, but plays no role in arranging internships.
		C: A dedicated Industry-Liaison office exists, but its effectiveness is limited.

Criterion-9: Industrial and Int'l Linkages (Cont'd)

d.	Design projects sponsored / supervised jointly by Industry Professionals and faculty members	D: No sponsored design projects and no joint supervision.
		W: No sponsored design projects but limited joint supervision.
		C: Industrial linkages exist but limited sponsored design projects.
e.	Faculty members involved in design / supervision / consultancy role with the industry in the execution of applied research / design project that are relevant to society / industry.	W: No policy exists or no faculty involvement with industry on applied research / design project.
		C: Limited faculty involvement with industry on applied research / design project.

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