

# Accreditation of Pharmacy Institutions: Evaluation Criteria

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## ABSTRACT

The background under which new accreditation norms have been revised, have been discussed earlier.<sup>1</sup> In order to face the actual process of accreditation, one needs to know guidelines and operating procedures for accreditation. The article discusses background regarding Self Assessment Report (SAR) and content therein. A comparison between old and new accreditation criteria also is presented in the current article. Composition and functioning of evaluation committees is highlighted. Documentation needed for accreditation and 360° feedback which is a new feature of current process of accreditation has been outlined. Important features of certain criteria and the improvement in comparison to earlier criteria are the essence of this article. Finally comments about finalization of accreditation process are given. Thus the article discusses details about the process of accreditation.

**Keywords:** Self Assessment Report (SAR), accreditation criteria, Programme Educational Objectives (PEOs).

## INTRODUCTION

Accreditation is the process of assuring quality of the educational process followed by the institution. For students and their parents, it provides a benchmark describing minimum basic framework and a promise for the educational process. An institution desirous of applying for accreditation is expected to prepare a Self Assessment Report (SAR) divided into two parts. Part A asks for general details about the institution and the programme. Part B asks for extensive details about various criteria, based on which accreditation status of the institution will be decided. Part A is further subdivided into fourteen sections dealing with information about the institution and eight sections dealing with programme specific information. Part B deals with nine major criteria pinpointing detailed educational procedures followed by the institution during conduct of the programme. Part

A of the SAR prepared with the revised version of accreditation document is similar to that of earlier version; whereas in part B there is a major change in approach and detailing. Comparison between old and new criteria of part B is presented in this article.

## LINK OF OLD AND NEW CRITERIA

In the process of accreditation, an institution is evaluated for 1000 marks. In the earlier version of accreditation document, there were eight criteria; while in the recent version,<sup>2</sup> there are nine criteria. The total marks continue to be 1000 in both the cases. The comparison between new and old criteria is presented in Table 1.

Scrutiny of Table 1 makes following points very clear.

Three parameters are quiet new in the fresh norms; Program Educational Objectives (PEOs), Program Outcomes (POs) and Course Outcomes (COs), of which

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Table 1: Comparison Between New and Old Accreditation Criteria				
New			Old	
Criterion No.	Description	Points	Criterion No.	Description
1	Vision, Mission and Programme Educational Objectives	75	I	Organization and Governance (Partly)
2	Programme Outcomes	200	VII	Supplementary processes (Partly)
3	Programme Curriculum	100	VI	Teaching – Learning Process
7	Teaching-Learning Process	75		
4	Students' Performance in the Programme	75	V	Human Resources: Students
			VIII	Research & Development and interaction effort (Partly)
5	Faculty Contributions	175	IV	Human Resources: Faculty and Staff
			VIII	Research & Development and interaction effort (Partly)
6	Facilities and Technical Support	150	III	Physical Resources (Central Facilities)
8	Governance, Institutional Support and Financial Resources	75	I	Organization and Governance (Partly)
			II	Financial Resources, Allocation and Utilization
9	Continuous Improvement	75		
Total Points: 1000			Total Marks: 1000	

PEOs and POs with Programme Curriculum are components of teaching learning process. Every educational program should be designed with educational objectives in mind. Such objectives should be relevant, unequivocal, observable, measurable and feasible in nature. An educational program, especially of professional nature needs that it should be relevant to existing needs of the society. Further the objectives should be clear and feasible in the environment of the institution. From time to time the attainment of objectives should be observable and measurable so that evaluation in an objective manner can be conducted even by a third party. These objectives are to be assessed in terms of Program outcomes to find out whether identified objectives have been achieved or not; hence program outcome follows PEOs. If PEOs are not achieved as observed in POs, then the gaps are filled up by providing remedial or supplementary continuing education. Every program consists of a set of courses; thus POs, can be followed up by Course Outcomes i.e. COs. As discussed above, PEOs, POs, and COs are interrelated and interdependent.

## FUNCTIONING OF EVALUATION COMMITTEES

The evaluation committee constitutes one chairperson and two evaluators for each programme. The evaluators are expected to perform following functions.

1. Study the SAR provided by the institution and identify areas where additional information may be required. Evaluate the SAR, collect and analyze the information.
2. Assist the chairperson in conducting the visit.
3. Ensure that the report is prepared and submitted to the NBA at the end of the final day visit.

Dos and don'ts by the chairperson and the evaluators have been indicated in the evaluation document.

The evaluation team will visit the institution and validate the assessment of the institution through the SAR as per the specified accreditation criteria. Following points are looked upon by the visiting team.

- Outcome of the education provided
- Quality assurance processes including internal reviews
- Assessment
- Activities and work of the students
- Entry standards and selection for admission of students
- Motivation and enthusiasm of the faculty
- Qualification and activities of the faculty members
- Infrastructure facilities
- Laboratory facilities
- Library facilities
- Industry participation and
- Organization

The team will have discussion with head of the institution, heads of the departments, management representatives, faculty members, alumni, students and parents. The team will have visits to classrooms, laboratories pertaining to the programme, library, computer centre, hostel and related facilities. The team will check all the documents indicated by NBA and any other document which may be complimentary to the enlisted activities.

The entire process of accreditation visit comprises four activities as indicated below.

1. Pre visit activities
2. Activities during the visit
3. Report writing
4. Seeking 360° feedback

360° feedback is a new addition in the NBA process. It involves feedback of stakeholders like institution, chairperson, evaluators and service provider about each other, based on a standard format. It is expected to improve the accreditation system and enhance its effectiveness. It will help in bringing transparency and objectivity in the evaluation process which, in turn improving the quality of accreditation process. As a part of 360° feedback, four forms have been designed.

1. Form A: Feedback form to be filled by the institution regarding accreditation visit.
2. Form B: Feedback form to be filled by the chairperson about the institution and team members.
3. Form C: Feedback form to be filled by the evaluator about the institution, co-evaluator and chairperson.
4. Form D: Feedback form to be filled by the Chairperson/Evaluator(s) about service provider.

Formats for all these four forms are available online and they are to be submitted/mailed within three days of the visit.

In future all fresh applicants will be following new criteria only. Hence some highlights of new criteria are discussed in subsequent paragraphs.

## VISION AND MISSION

Institute or department is supposed to list and articulate the vision and mission statement and is to be reflected in media like websites, books etc. The dissemination of these statements among stakeholders needs to be insured, e.g. a pocket card containing academic calendar on a side and vision and mission statements on the other side can be distributed to all teachers and students. When an institute is divided in large sized departments, the vision and mission

statements of the departments need to be in line with those of institute. e.g. Pharmaceutical care of patients can be vision of a programme; while how students are to be trained in order to make them expert in providing pharmaceutical care can be mission of programme.

## PROGRAMME EDUCATIONAL OBJECTIVES (PEOS)

PEOs are broad statements that describe the career and professional accomplishments of the programme. PEOs need to be in line with needs of the stakeholders and should also be consistent with mission of the institution. Following stakeholders are related to pharmacy curriculum.

- Students
- Faculty
- Parents
- Management
- Regulatory bodies
- Professional associations
- Drug manufacturers and supply chain
- Patients

All stakeholders collectively expect that students being trained by pharmacy institutions should be able to serve the society for its time dependant changing needs.

## ACHIEVEMENT OF PEOs

It is necessary to indicate how subjects in the curriculum help in achieving PEOs; thus subject content should be appropriately designed in line with PEOs. Very often, either PEOs are not well defined before designing the curriculum or else having PEOs identified, curricular content do not align themselves to the PEOs. Occasionally there may be problems at the level of implementation. All these gaps need to be bridged in order to have an effective educational process. Various committees should be formulated to identify all aspects related to implementation of the curriculum and co/extracurricular activities and functions of these committees be described precisely.

## ASSESSMENT OF ACHIEVEMENT OF PEOs

It is not enough merely depicting PEOs, it is necessary to ensure that a periodic assessment should be done whether PEOs are really being achieved or not. Periodicity of the assessment may be decided at the institutional level. Whos and Hows of the assessment are needed to be clarified. Proofs of achievement of PEOs are needed to be described with respect to, expected level of achievement, summaries, documentation and maintenance of the results.

## REDEFINING OF PEOs

PEOs are not static statements. They need to be redefined based on the feedback of stakeholders and processes for their implementation. Very often it happens that, identified PEOs are not achieved and the practical situation compels us that PEOs need to be modified in view of the real field situation. In such cases realistic feedback from stakeholders is of extreme importance.

## DEFINITION AND VALIDATION OF COs AND POs

The COs and POs should first be listed. The media through which POs are published and disseminated to stakeholders should be clearly stated. The description of the process indicating how POs are periodically aligned to graduate attributes and their details with reference to the accreditation manual need to be described. It is also necessary to show correlation between PEOs and POs.

## ATTAINMENT OF POs

There has to be a correlation between POs and COs. The basis of correlation has to be documented. Description of various course delivery methods and their suitability to attainment of POs should be indicated. The type of delivery mode be justified further by using suitable survey at the end of the course. Description of types of evaluation methods and their relevance to attainment of POs should be indicated. It is necessary to justify balance between theory and practical towards attainment of PEOs and POs. It has to be justified that every component of theory and practicals constituting COs is oriented towards attaining POs.

## EVALUATION OF ATTAINMENT OF POs

Attainment of POs as indicated in point 2 has to be further evaluated. Description of the evaluation process documenting and demonstrating the degree to which POs have been attained should be provided. Information on listing and description of the evaluation process and their frequency should be indicated. The instrument which has been used for data collection should be clearly stated. e.g. exam. questions, projects, oral exams etc. Information on the expected level of attainment for each PO, summaries of the results of the evaluation processes and an analysis illustrating the extent to which each PO is attained; and how the results are documented and maintained be provided.

## REDEFINING POS BASED ON THE FEEDBACK

During the process of feedback it might be realized that, attainment of POs is not in line with graduate attributes. In such cases POs may have to be redefined/reviewed. Rationale for such observations should be indicated.

## CURRICULUM

Structure of the curriculum should be indicated. Prerequisites for the courses, if any, be schematically presented. It is necessary to provide evidence that the content of the curriculum satisfies applicable programme criteria. e.g. Anatomy, Physiology and Health Education (APHE) is a prerequisite for Pharmacology.

## CURRICULUM COMPONENTS AND RELEVANCE TO THE POs AND THE PEOs

Usually pharmacy curriculum can be grouped under four major headings: Pharmaceutics, Pharmaceutical Chemistry, Pharmacology and Pharmacognosy. Fifth group of all other courses not coming under these titles can be placed. Entire curricular content can be conveniently placed under these groups and their relevance to POs and PEOs should be clearly stated.

## CORE COURSES AND THEIR RELEVANCE TO POs

All courses included under five subheadings indicated in above point are core courses. It should be clarified as to how contents from the core courses develop ability of students to solve professional problems. The sequence of linkage is PEOs – POs – COs. One has to ensure that content of curriculum in terms of core courses is really able to achieve the basic programme objective.

## INDUSTRY INTERACTION/INTERNSHIP

Interaction between Pharmaceutical industries and academic institutions is vital for success of the curriculum. Industries have to show involvement in the programme in the form of Laboratory related work. It is expected that some part of internship where students can work in Pharmaceutical Industries can be included in the curriculum.

## MEASURES AND PROCESSES USED TO IDENTIFY GAPS IN ATTAINMENT OF COs AND POs

It is possible that the identified COs and POs may not be achieved during implementation of the curriculum. The process to identify gaps if any between identified COs and POs and their actual attainment should be clarified.

## CONTENT BEYOND SYLLABUS

Actual professional needs on the field may change from time to time. In such cases, curricular content indicated in the syllabus may not be enough for attainment of COs and POs. Efforts to offer such necessary contents beyond the syllabi should be stated clearly. Time dependant changes in regulatory requirements should be reflected in the curriculum. e.g. from January 2013,

Quality by Design (QbD) has been made mandatory by USFDA for all generic drugs. This part of regulation should now become a part of Pharmacy curriculum.

### STUDENTS' PERFORMANCE IN THE PROGRAMME

Students are to be evaluated based on their success rate, academic performance, placement and higher studies and participation in professional activities. Students are to be encouraged for participation in various conferences, symposia, workshops and presentation of research and review articles therein. Students are also to be encouraged to be members of professional organizations like Indian Pharmaceutical Association (IPA), Indian Society for Technical Education (ISTE) etc.

### FACULTY CONTRIBUTION

Normally faculty contribution is assessed based on student-teacher ratio, faculty-cadre ratio and faculty qualifications. Overall competencies of faculty should be related to programme specific criteria. In addition, participation of faculty as a resource person, research publications of faculty, intellectual property developed by faculty, Research and Development (R&D) Projects, consultancy and integration of faculty with outside world are added parameters on which the faculty is evaluated. Professional satisfaction of the faculty improves retention in the institute. Thus faculty retention is also a parameter to assess faculty contribution.

### FACILITIES AND TECHNICAL SUPPORT

Availability of infrastructural facilities like adequate class/tutorial rooms, faculty rooms, laboratories, instruments, animal house and related facilities, museum, medicinal plant garden and administrative and technical manpower support and their skill up-gradation are the points on which facilities and technical support can be evaluated.

### TEACHING-LEARNING PROCESSES (TLP)

TLP is assessed based on tutorial classes, mentoring system to help students, feedback analysis and corrective measures, scope of self learning, generation of self learning facilities, language laboratories, career guidance, training-placement and entrepreneurship cell, co-curricular and extra-curricular activities, availability of sports facility.

### GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES

It is assessed based on infrastructural facilities in the campus, organization governance and transparency,

budget allocation, utilization and accounting (both at institutional and programme specific levels), library, internet, safety norms and checks and emergency medical care and first-aid.

### CONTINUOUS IMPROVEMENT

All the parameters on the basis of which accreditation is accorded to an institute, need to have continuous improvement. Hence parameters like success index of students, performance index of students, improvement in student-teacher ratio, enhancement of faculty qualification index and improvement in faculty research publications, R&D and consultancy for last three years need to be evaluated. Appropriate documentation for all parameters should be adequately maintained. Participation in continuing education, generated new facilities and overall improvement since last accreditation need to be evaluated.

As the visit of expert team progresses their work, they prepare a document indicating marks achieved under each subheading. Such marks are allotted for each criterion individually. At the end a summary is prepared for all the criteria and an evaluation sheet is prepared in tabular format. The table indicates every criteria, points awarded for each criteria and whether the institution qualifies in individual criteria. All evaluators sign this mark-sheet. In addition, the chairman prepares the report along-with comments on strengths, weaknesses, deficiencies (if any) and additional remarks (if any). A list of documents is to be prepared in support of SAR. The documents are of two types, institute specific and programme specific. Seventeen institute specific and thirty two programme specific documents have been indicated in the list. It is expected that data regarding above mentioned points for last three years have to be presented.

NBA has provided a list of illustrative questions under four titles.

1. Head of the institution
2. Head of the department
3. Faculty
4. Students

It is advisable that draft answers for all these questions be kept ready by the institution being accredited.

### FURTHER READING

1. S. B. Bhise. Accreditation of Pharmacy Institutions: Background and the new norms. *Indian J. Pharm. Edu. Res.* 2013; 47(2):188-92
2. National Board of Accreditation (NBA). Accreditation manual for Pharmacy UG programmes. New Delhi: NBA; 2013.