

HIGHER EDUCATION COMMISSION

National Computing Education Accreditation Council (NCEAC)

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ACCREDITATION GUIDELINES-CONCEPT

CONTENTS

I. What is Accreditation?

II. Establishment of the Council

III. Functions of the Council

IV. Scope

V. Accreditation of Computing Programs

VI. Institutions

VII. National Recognition.

I. What is Accreditation?

In the emerging age of information and knowledge, it is imperative to ensure quality and purposefulness of our educational programs. Computing professions, although young, are undoubtedly playing pivotal role in the development of nations. The computing education in Pakistan being a recent phenomenon needs direction, guidance, and mechanisms to achieve quality standards. Accreditation processes are considered an effective instrument to achieve these goals.

Computing has emerged as a major academic discipline and a professional field in Pakistan in the recent past. A large number of educational institutions offer degree programs in computing related areas both in public and private sectors. It has therefore become essential that an internationally acceptable and industrially viable set of criteria maybe evolved for various degree programs in computing related degree awarding institutions. For this purpose, it is proposed that an accreditation authority be setup which would periodically evaluate, scrutinize, and monitor the standards followed in different degree awarding institutions and their affiliated colleges. This authority shall be termed as the National Computing Education Accreditation Council (NCEAC).

The accreditation is to be used to assure quality in computing degree programs in educational institutions. It would require an educational institution or program to meet certain defined standards or criteria. The accreditation will be for specific degree programs and not institutions. Moreover, accreditation is not to be confused with certification. In general, institutions and programs are accredited, and individuals are certified.

Accreditation protects and promotes the interest of all stake holders, namely parents, students, faculty, academic administrators, employers, and taxpayers. It serves to notify: Parents and prospective students that a program has met minimum standards; Faculty, deans and administrators of a program's strengths and weaknesses and of ways to improve the program; Employers that graduates are prepared to begin professional practice; Taxpayers that their funds are spent well; and The public that graduates are aware of public health and safety considerations.

II. Establishment of NCEAC

Whereas, Higher Education Commission was constituted on 11th September, 2002 by the promulgation of Ordinance F. No. 2(1)/2002.Pub

And

Whereas the Higher Education Commission has been authorized in article 3 Sub-Section (e) to set up national or regional evaluation councils or authorize any existing council or similar body to carry out accreditation of Institutions including their departments, faculties and disciplines by giving them appropriate ratings. The Commission shall help build capacity of existing councils or bodies in order to enhance the reliability of the evaluation carried out by them: and

Whereas, now there is an urgent need for the constitution of the **National Computing Education Accreditation Council (NCEAC)** for the smooth and the efficient working of the affairs of the Higher Education Commission regarding the accreditation of institutions and their departments, faculties and disciplines by giving them appropriate ratings, now therefore, the said council by the name of **National Computing Education Accreditation Council (NCEAC)** is established with immediate effect with the following, organization, objectives, functions and duties to perform:

III. Functions of the Council

- a. To organize and carry out a comprehensive program of accreditation of computing programs leading to degrees;
- b. The NCEAC shall propose policies, procedures, and criteria or may suggest changes or revisions of the same for Accreditation.
- c. The NCEAC shall administer the accreditation process based on the approved policies, procedures, and criteria.
- d. The NCEAC shall approve the list of evaluators to participate in the process of accreditation of academic programs.
- e. The NCEAC shall constitute Accreditation Inspection Council (AIC) for the

evaluation of relevant academic programs for accreditation. AIC (to be constituted from the approved list of evaluators) shall make recommendations to NCEAC. The final decision of the accreditation or necessary action will be made by NCEAC.

- f. Procedures and decisions on all appeals with respect to accreditation actions shall be the responsibility of the NCEAC.
- g. Accreditation decisions will be based exclusively on the suitable criteria, policies, and procedures as approved by NCEAC.
- h. To publish a list of Recognized Computing Qualifications/programs
- i. To promote intellectual development and understanding of subject areas that impact accreditation activities in the computing profession;
- j. To prepare, print and publish criteria for the teaching of, and training in, Computing and its applications;
- k. To collect, index and publish information on any or all aspects of computing, its teaching applications, its applications and uses to industry and to maintain or support any library, bureau, database or information system conducive to this end;
- l. To select program evaluators;
- m. To train and assess program evaluators;
- n. To assist academic institutions in planning their educational programs for accreditation;
- o. To identify to the public, prospective students, student counselors, parents, educational institutions, professional societies, potential employers, governmental agencies, and state licensing or certification boards of specific programs that meet minimum criteria for accreditation.

- p. To provide guidance for the improvement of the existing educational programs and development of future programs leading to the computing profession.
- q. To stimulate the improvement of computing education in Pakistan.
- r. To develop Accreditation Policies and Processes
- s. To develop Guidelines and Procedures for Program Evaluators
- t. To develop Guidelines and Procedures for Programs and Institutions
- u. To develop Guidelines for Selection of Evaluators
- v. To identify and develop Guidelines for Ensuring “No Conflict of Interest”
- w. To develop Program Evaluator’s Training Manual Self Study Questionnaire
- x. To develop Forms and Templates
- y. Collect information and statistics on accreditation of higher education of Computing and its respective Institutions as it may deem fit and may cause it published

IV. Scope

The degree programs of the following disciplines of **Computing** shall fall in the purview of the proposed accreditation:

Computer Science
Information Systems
Software Engineering
Information Technology
Bioinformatics

Additional emerging disciplines and degree programs pertaining to the Computing shall be added to this list in the future.

V. Accreditation of Computing Programs

- a. Accreditation shall be a mandatory process for all relevant academic programs offered by public and private sector institutions. The incentive for obtaining such accreditation shall be enhanced recognition in the computing community and prospective students.**
- b. All institutions in Pakistan which grant a Recognized Computing Qualification must apply to the Council to have such qualification accredited.**
- c. Accreditation will be carried under the umbrella of HEC and via the National Computing Education Accreditation Council.
- d. The Council shall publish a list of Accredited Programs as prescribed
- e. The Recognized Computing Qualifications granted by institutions recognized by the respective authorized bodies outside Pakistan shall also be recognized by the Council as per need in case of Pakistani graduates of Computing program
- f. Every institution in Pakistan which has an Accredited Program shall furnish such information as the Council may, from time to time, require as to the courses of study and examination to be undergone in order to obtain such Recognized Computing Qualification
- g. The Council shall appoint such number of Program Evaluators as it may deem requisite to attend at any or all of the examinations held by the institutions in Pakistan for the purpose of granting Recognized Computing Qualifications which are Accredited or in respect of which Accreditation has been sought

VI. Institutions

Programs will be considered for accreditation if they are offered by an institution of higher learning in one of the following categories:

- a. Institutions chartered by Federal or Provincial governments.
- b. Institutions affiliated by the chartered universities or degree awarding institutions.
- c. Institutions offering degree programs under affiliation/collaboration with foreign universities under the approval from HEC.
- d. Institutions that operate a branch campus under the direct supervision and control of the main campus, and conduct program that is substantially equivalent to the one located on the main campus.
- e. When a multi-campus institution presents programs for accreditation, each campus will be considered as a separate institution in the evaluation process.

VII. National Recognition

- a. NCEAC shall be a nationally and internationally recognized body for Higher Education Accreditation of Computing in Pakistan. It shall be responsible for the accreditation of educational programs leading to degrees in the computing discipline.
- b. Its endorsement and certification shall be valued and drawn on by professional and technical societies, by employers, and by the institutions themselves for self-appraisal and improvement.
- c. NCEAC shall run and execute the accreditation programs on behalf of HEC under its guidance and instructions.