

# **PAKISTAN ENGINEERING COUNCIL**



## **REGULATIONS FOR ENGINEERING EDUCATION IN PAKISTAN**

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**Pakistan Engineering Council  
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PART II

Statutory Notifications, (S. R. O.)

GOVERNMENT OF PAKISTAN

MINISTRY OF WATER AND POWER

NOTIFICATION

*Islamabad, the 20th November, 1985*

**S.R.O.1142(I)/85.**— In exercise of the powers conferred by section 25A of the Pakistan Engineering Council Act, 1975 (V of 1976), the Pakistan Engineering Council is pleased to make the following Regulations for Engineering Education in Pakistan:

REGULATIONS FOR ENGINEERING EDUCATION IN PAKISTAN

ARTICLE 1. TITLE

These regulations shall be known as Pakistan Engineering Council Regulations for Engineering Education in Pakistan.

## **ARTICLE 2. MINIMUM QUALIFICATION FOR ADMISSION TO ENGINEERING BACHELOR'S DEGREE PROGRAMMES OFFERED BY ENGINEERING INSTITUTIONS AND UNIVERSITIES**

A candidate seeking admission in an Engineering Institution/University for working towards Bachelor's Degree in any recognized branch of Engineering must fulfill the following minimum requirements:—

- (a) (i) He or she has passed the Higher Secondary School Certificate (HSC/HSSC) Pre-Engineering Examination with Physics, Chemistry and Mathematics, securing at least 60% marks in aggregate of a University, a Board of Intermediate or Board of Intermediate and Secondary Education in Pakistan. In addition, a combination of Physics, Mathematics and Computer Studies/Computer Science may be allowed for admissions in all Computer related Engineering Programmes, Electronics, Telecommunications and Avionics Engineering Programmes and a combination of Biology, Physics, Chemistry may also be allowed for Bio-Medical or Bio-Engineering:

Provided that any candidate who has been admitted in an Engineering Institution or University for working towards Bachelor's degree in any recognized branch of engineering before the 6<sup>th</sup> June, 2003, and does not fulfill the above specified minimum requirements for such admission, shall be considered for registration by the Pakistan Engineering Council:

[ \* \* \* \* \* \* \* \* \* \* \* ]<sup>1</sup>

**OR**

- (ii) He or she has passed any other examination of a Foreign University/Institution/Examination Body, with both standard as well as scope wise is equivalent to the Higher Secondary School Certificate (Pre-Engineering) of a University or a Board of Intermediate/Intermediate and Secondary Education in

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1. Second proviso omitted vide SRO 417(1)/2016 dated 14-05-2016

(b) He or she has passed an entrance test conducted by the respective Institution or University.

[**(c)** (i) A candidate who has passed the Diploma of Associate Engineer (DAE) Examination, securing at least 60% aggregate marks shall be eligible for applying in admission against [02%]<sup>3</sup> reserved seats in relevant discipline of Engineering in which he or she has passed the DAE examination; and the relevancy of DAE will be as determined by Accreditation Committee of this Council; and

(ii) A candidate possessing [B.Tech (Hons)/B.S/B.Sc./Bachelor of Technology (with relevant discipline)]<sup>4</sup> or equivalent qualification duly recognized by HEC seeking admission towards the relevant engineering discipline against 02% reserved seats of [B.Tech (Hons)/B.S/B.Sc./Bachelor of Technology (with relevant discipline)]<sup>5</sup>, shall be considered for admission in 2015 and after, with one year of exemption:

Provided that the candidate possessing B.Tech (Pass), B.Tech (Hons) qualification recognized by HEC enrolled/ graduated upto 31st December, 2014 in relevant engineering discipline against reserved seats, with one year and two year of exemption respectively, shall be considered for registration with the Council.]<sup>2</sup>

(d) A candidate seeking admission should possess adequate mental and physical health to be able to obtain engineering education as prescribed and necessary steps should be taken by University/ Institution to ensure this provision on admission of students.

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2. Subs. vide SRO 417(I)/2016 dated 14-05-2016

3. Ins. vide SRO 1213(I)/2016 dated 16-11-2016

4&5. Subs. vide SRO 99(I)/2017 dated 15-02-2017

**[ARTICLE 2A. ANNUAL ADMISSIONS IN ENGINEERING BACHELOR'S DEGREE PROGRAMMES OFFERED BY ENGINEERING INSTITUTIONS AND UNIVERSITIES**

- (1) The maximum number of annual admissions in the engineering programs offered by higher education institutions shall be approved by the Council after evaluation of infrastructure and the teaching facilities in accordance with the regulations and accreditation policy guidelines made under the relevant provisions of PEC Act.
- (2) All reserved seats/quotas shall be adjusted within the maximum allowable intake per yearly session approved by the Council for an engineering program of the engineering institution/university:

Provided that the prior permission of PEC shall be required against the Government nominations for admission in addition to allowable intake restricted for open merit.

- (3) The ceilings under this regulation are applicable even when facilities in the institution for a particular engineering program are more than that required by the Council as per its laid down evaluation criteria and policies invoked for accreditation of engineering program.]<sup>6</sup>

**ARTICLE 3. MINIMUM STANDARD OF COURSE OF STUDY AND PRACTICAL TRAINING FOR AWARD OF BACHELOR'S DEGREE IN VARIOUS PROGRAMMES OF ENGINEERING**

- (a) Percentage wise break up of Courses of studies in various branches of Engineering shall be:
  - (i) Engineering Subjects                    65% (minimum)
  - (ii) Other Subjects                        35% (maximum)

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6. Ins. vide SRO 1447(I)/2018 dated 15-11-2018

- (b) The curricula of courses approved by Higher Education Commission shall be the minimum guidelines, and the universities shall have the flexibility to adopt minor changes owing to the market needs;
- (c) After accreditation of any programme, the subsequent scrutiny shall be carried out at regular intervals, the intervening period between the two intervals not exceeding three years; and
- (d) Any student seeking transfer of credits [within or]<sup>7</sup> from one institution or college or university to another institution or college or university must possess credits of the relevant accredited programme and necessary steps must be taken by the accepting institution or college or university to ensure compliance of this provision failing which its accreditation of that programme by the Pakistan Engineering Council shall be liable to be withdrawn. [The transfer of credits shall not exceed 50% of programme total credits required.]<sup>8</sup>

#### **ARTICLE 4. MINIMUM REQUIREMENTS FOR CONTENT AND DURATION OF STUDY**

- (a) Engineering Institutions and Universities shall follow Annual/Semester System of conducting Bachelor's Degree programme in any accredited programme of engineering, however semester system will be preferable.
- [(b) Minimum period for a student to work towards Bachelor's Degree in any accredited programme of engineering shall be four academic years for the annual system, or a minimum of 128 semester credits normally spread over 8 semesters for the semester system, excluding any period of repetition of courses and examinations; and one credit hour for theory means one contact hour and one credit hour for practical means three contact hours; and]<sup>9</sup>

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7. Ins. vide SRO 1213(I)/2016 dated 16-11-2016

8. Added vide SRO 1213(I)/2016 dated 16-11-2016

9. Subs. vide SRO 417(I)/2016 dated 14-05-2016

- (c) Engineering Institutions/Universities shall frame their schedule of studies, examination programmes and vacations, in advance. The examination schedules shall be notified to Pakistan Engineering Council at least six weeks in advance, for inspection of examinations.

#### ARTICLE 5. MINIMUM STANDARDS OF EXAMINATION FOR SECURING ACCREDITATION OF ENGINEERING QUALIFICATIONS

- (a) For a candidate to be eligible to appear in each final examination, he must have attended at least 75 per cent of lectures delivered in theory and practicals.
- [**(b)** Period to be allowed to a candidate to earn Bachelor's Degree in any accredited Programme of Engineering shall not exceed seven academic years:

Provided that any candidate who has earned Bachelor's Degree in any accredited Programme of Engineering in a period of more than seven academic years on or before 24th September, 2018, shall be considered for registration by the Pakistan Engineering Council.]<sup>10</sup>

- [**(c)** In Annual System only one Supplementary or Repeat Examination shall be allowed per academic year. Such Supplementary or Repeat Examination shall be completed within ten weeks of the announcement of the result of annual examinations.]<sup>11</sup>
- [**(d)** No choice of questions shall be allowed in question papers under Annual System.]<sup>12</sup>
- (e)** Each Final Examination of Theory Papers shall carry a minimum 80% of total marks assigned to a course in Annual System and 50% in Semester System. Similarly each final examination of practical work shall carry minimum of 60% marks for viva voce.

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10. Subs. vide SRO 462(I)/2019 dated 07-02-2019

11, 12. Subs. vide SRO 417(I)/2016 dated 14-05-2016

(f) In annual system, a failed student of 3rd year engineering examination may be provisionally promoted to 4th year but shall not be allowed to take Final B.Sc. Engineering examination, unless he has passed all the subjects of previous year examinations. In semester system a student shall become eligible for the award of Bachelor's Engineering degree, only on passing a minimum of one hundred and twenty eight of credits having three thousand and two hundred lecture hours, prescribed in the curriculum by the concerned university in the relevant discipline; and

[(g) \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* ]<sup>13</sup>

[(h) Results of Final Examination shall be declared by the institutions/ or universities not later than four weeks after the date of completion of these examinations in annual system and two weeks in case of semester system.]<sup>14</sup>

#### ARTICLE 5A. GUIDELINES FOR ANNUAL AND TERM EXAMINATIONS.

1. Specimen question paper shall be prepared by internal examiner and sent to external examiner duly appointed by the Committee of Vice-Chancellors of the Universities of Engineering and Technology for moderation.
2. The external examiner may change the question paper up to a maximum of fifty per cent.
3. The final paper set by the external examiner shall be distributed in the examination.

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13. Clause (g) omitted vide SRO 545(I)/2001 dated 30-07-2001

14. Subs. vide SRO 417(I)/2016 dated 14-05-2016

4. The script shall be examined by the external examiner who after marking shall send it to internal examiner. The internal examiner, if agrees with the evaluation shall sign the award on the script and send it to the external examiner, he shall be entitled to make changes in the award list up to a maximum of five per cent of total marks. However, according to his judgment, if the discrepancy is more than five per cent then he shall refer the case back to the external examiner.
5. If both do not agree on the award list then a third examiner shall be appointed by the University whose evaluation shall be considered as final.
6. The Superintendent shall not be less than the rank of an Associate Professor of the same department or the University.
7. The Deputy Superintendent shall be at least an Assistant Professor of the University preferably from the same department.
8. Invigilator shall be a University employee of not less than BPS-16.

**ARTICLE 6. MINIMUM QUALIFICATIONS AND EXPERIENCE REQUIREMENT FOR APPOINTMENT IN ENGINEERING UNIVERSITIES/COLLEGES/INSTITUTIONS**

S.No.	Post.	Minimum Qualifications and Experience.
1	2	3
1.	Lecturer.	[1st Class/Division Master's degree in the relevant field of engineering.] <sup>15</sup>
2.	Assistant Professor.	(i) Master's degree in the relevant field of engineering, and 2 years teaching or research experience in a recognized institution/college/university or 2 years professional experience in the relevant field in a national or international organization.

**OR**

- (ii) Ph.D. degree in the relevant field of engineering.
3. Associate Professor. (i) Ph.D. degree in the relevant field of engineering recognized by HEC in consultation with PEC.  
AND  
[(ii) 10 years teaching or research experience in an institution/college/university recognized by HEC; or 7 years professional experience in the relevant field of engineering in a national or international organization out of which 2 years must be teaching experience with at least 4 years experience at the Post-Ph.D level in a university recognized by HEC or Post-graduate institution or professional experience in the relevant field of engineering in a national or international organization.]<sup>16</sup>  
AND  
(iii) 5 research publications to be systematically increased to 10 research publications. However, after the year 2012 at least 4 research publications shall be published in the last 5 years, in journals of international repute, recognized by HEC in consultation with PEC.
4. Professor. (i) Ph.D. degree in the relevant field of engineering recognized by HEC in consultation with PEC.  
AND  
(ii) [15]<sup>17</sup> years teaching or research experience in an institution/college/university recognized by HEC; or [15]<sup>18</sup> years professional experience in the relevant field of engineering in a national or international organization out of which 5 years must be teaching experience. However, after the year 2012, the candidate shall have 15 years teaching or research experience with at least 8 years experience at the Post-Ph.D. level in a university recognized by HEC or Post-graduate

institution or an international organization; or 10 years Post-Ph.D. teaching or research experience in a university recognized by HEC or Post-graduate institution or professional experience in the relevant field of engineering in a national or international organization.

[**(iii)** 15 research publications in HEC recognized journals with preferably 5 research publications in the last five years.]<sup>19</sup>

5. Principal. (i) Same requirements as given above for the post of Professor.  
AND  
(ii) must have worked as Professor for atleast 4 years.

#### [ARTICLE 7. COMPULSORY Ph.D QUALIFICATION

All Professors, Associate Professors, Professors, and at least 50% of Assistant Professors should be possessing Ph.D qualification employed in each engineering programme of an institution or college or university collectively called Higher Education Institutions.]<sup>20</sup>

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15. Against Sr.No.1, in column 3, substituted vide SRO 1447(I)/2018 dated 15-11-2018

16. Against Sr.No.3, in column 3, clause (ii) substituted vide SRO 417(I)/2016 dated 14-05-2016

17. Against Sr.No.4, in column 3, in clause (ii), substituted for "12" vide SRO 417(I)/2016 dated 14-05-2016

18. Against Sr.No.4, in column 3, in clause (ii), substituted for "12" vide SRO 417(I)/2016 dated 14-05-2016

19. Against Sr.No.4, in column 3, in clause (iii), substituted vide SRO 417(I)/2016 dated 14-05-2016

20. Substituted vide SRO 417(I)/2016 dated 14-05-2016

## [ARTICLE 8. VIOLATION AND PENALTIES

In case of violation of any clause of these regulations, upon confirmation by the relevant committee, PEC Governing Body may impose one or more penalties to the concerned/accused/institution/HEI's as per the following:—

- (i) fine (as per nature of violation) and as described by the Council;
- (ii) withdrawal of accreditation;
- (iii) to stop the further enrolment in the programme;

Provided that the satisfaction of the Council would be based on a regular inquiry, wherein show cause notice and personal hearing are mandatory.]<sup>21</sup>

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21. Added vide SRO 985(I)/2017 dated 24-05-2017

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