

Draft Minutes of 56th meeting of Senate of PEC University of Technology, held on 30.04.2014 at 3.00 P.M. in the Conference Hall of PEC University of Technology, Chandigarh.

The following attended the meeting

1. Prof. Manoj K. Arora
2. Prof. P.K. Raina
3. Sh. Pramod Relhan
4. Prof. Rajesh Bhatia
5. Dr. (Ms.) N.R. Prakash
6. Prof. A. Manna
7. Prof. (Ms.) Uma Batra
8. Prof. Parveen Kalra
9. Prof. R.K. Khitoliya
10. Sh. Kishori Lal
11. Dr. Balwinder Singh
12. Prof. (Ms.) Vasundhara Singh
13. Prof. Neena Gupta
14. Prof. (Ms) R. Sehmi
15. Dr. Jagtar Singh Gill
16. Dr. Umesh Sharma
17. Dr. D.R. Parajapati
18. Sh. Sushil Kumar
19. Dr. Seema Vasishta
20. Prof. Ashwani Kumar

In attendance (Special Invitee):

1. Prof. A.K. Lall
2. Prof. Sanjeev Sofat
3. Prof. Parveen Kalra
4. Ms. Neelu Jain
5. Prof. Ms. Vasundhara Singh
6. Dr. Deepak Bagai
7. Dr. R.M. Belokar
8. Dr. Poonam Saini

Under leave of absence:

1. Prof. Shiv Narayan
2. Prof. Siby John
3. Dr. Kamal Kumar

The deliberations of the meeting are as follows:

Item No.	Particulars	Decision
56.1	To confirm the minutes of 55 th and two emergent meetings held on 12.12.2013, 6.01.2014 and 22.01.2014, respectively.	Confirmed.
56.2	Follow up action on the previous Senate meetings.	<p>The action taken on various items was noted. The following decisions were taken in respect of items where the action is still pending.</p> <p>Item 51.7</p> <p>i) All the Heads were requested to give their recommendation in 15 days time in respect of admission of students with different disabilities to their respective disciplines.</p> <p>Item 55.6</p> <p>ii) The committee considering the direct admission of BE/ B.Tech. degree holders in Ph.D. programmes at PEC may submit its recommendations in about 10 days time.</p> <p>iii) The Committee constituted for the purpose (item 55.4) should submit the proposed guidelines for dealing with unfair means cases and the quantum of punishment for various offences in 15 days time.</p> <p>iv) The Dean Academic Affairs was requested to expedite the action in respect of item 55.10 (Rules of internship of students from various institutes and submit the proposal in about a week's time.</p>

		<p>v) The Head Computer Science & Engg. department was requested to submit the complete revised proposal for new ME programme in CSE (Software Engg.) at the earliest so that it can be taken up in the next meeting of Senate (item 55.12).</p> <p>vi) On the recommendation of Head, Production Engg. Department the case of semester leave of Mr. Lakhvir Singh, SID 11204009 (item 55.13.5) was closed.</p> <p>vii) Dr. R M Belokar, Prod. Engg. Department and co-ordinator ME (TQEM) programme was requested to submit the complete revised structure/ syllabi (item 2 of meeting dated 22.01.2014) for all the semesters for the approval of the Senate in its next meeting.</p> <p>It was further decided that all the officers responsible for taking further action on various decisions of the Senate should keep the office of the Registrar updated on these.</p>
56.3	To review the grading system for UG and PG Courses	<p>The proposal for adopting a revised grading system for UG/ PG courses was discussed at length and it was decided to:</p> <p>i) Adopt the proposed narrow-band grading system and the corresponding grade points.</p> <p>ii) For large classes (>30 students) the grading in a course shall</p>

follow a normal distribution. All components of evaluation i.e. mid-term examination, end term examinations, assignments, quizzes etc. should be done in terms of marks. The marks obtained out of 100 would be converted into grades as per the following guidelines.

The mean (\bar{X}) and the standard deviation of marks (σ) obtained by all the students in a course shall be calculated. The grades shall be awarded to a student depending upon the marks and the ranges as per table given below:

Award of Grade Using Statistical Method

Lower Range of Marks	Grade	Upper Range of Marks
$> \bar{X} + 1.5 \sigma$	A ⁺	-----
$\bar{X} + 1.0 \sigma <$	A	$\leq \bar{X} + 1.5 \sigma$
$\bar{X} + 0.5 \sigma <$	B ⁺	$\leq \bar{X} + 1.0 \sigma$
$\bar{X} <$	B	$\leq \bar{X} + 0.5 \sigma$
$\bar{X} - 0.5 \sigma <$	C ⁺	$\leq \bar{X}$
$\bar{X} - 1.0 \sigma <$	C	$\leq \bar{X} - 0.5 \sigma$
$\bar{X} - 1.5 \sigma <$	D	$\leq \bar{X} - 1.0 \sigma$
	F [*]	$\leq \bar{X} - 1.5 \sigma$

Note:

- a. Marginal adjustment in lower and upper range of marks may be done to accommodate natural cut-offs.
- b. * The number of students securing A⁺ grade should not be more than 10%. The same percentage limit would apply to F grade.

		<ul style="list-style-type: none"> iii) For small classes (≤ 30 students) the grades shall be awarded on the basis of absolute marks. iv) Summer term will be replaced with re-examination. Every student will be allowed to take end-term examination again in a maximum of two courses in which he/ she scores an 'F' Grade in a particular semester. If he/ she, on re-examination, scores sufficient marks to cross the cut-off for clearing a particular course (adopted during the regular evaluation for that course) then he/ she will be awarded a 'D' grade. v) In the revised grading system, honours credits shall be allowed in a course only if a student achieves the requisite score in the Honours part and gets a B⁺ grade or higher in the common evaluation for that particular course. vi) The revised grading system shall be applicable to students admitted from the session 2014-2015 onwards. <p>The revised grading system to be implemented from academic session 2014-15, is given in Annexure 56.3.1.</p>
56.4	To consider the proposal for evaluation of M.E. dissertation work	<p>After deliberating on the proposal, that had come through IAPC, the Senate decided the following:</p> <ul style="list-style-type: none"> 1) The Examination Board for ME dissertation evaluation at the end of 3rd semester may or may not include an External Examiner.

		<ol style="list-style-type: none">2) The Constitution of examination Board at the end of 4th semester was approved. However, the restriction of having an External Examiner from within 20-25 km radius of Chandigarh was removed. But the departments have to ensure that the evaluation of ME dissertation of 4th Semester students is completed by 15th of July of the concerned year.3) There shall be no limit on the number of dissertations one External Examiner can evaluate.4) The evaluation criterion and the distribution of Marks between the Supervisor and the Examination Board was approved as proposed (50% each)5) While evaluating the dissertation, each member of the examination Board will independently award marks for various components of evaluation. The average of all the marks awarded for each component will be taken as the final marks scored by a student.6) The other criteria for awarding grades were approved as proposed.7) The score of ME dissertation will henceforth be included for computing SGPA/CGPA.8) The revised system of ME dissertation evaluation is given as Annexure 56.4.1 and will be followed w.e.f. session 2014-2015.
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56.5	To review the requirement for pre-requisite courses in scheme of BE programmes	<p>The Senate did not agree to the proposal of removing the requirement of pre-requisite courses altogether. It was decided that:</p> <ul style="list-style-type: none"> i) Pre-requisite courses would be specified wherever applicable. The department should re-consider all the courses being offered by them and revise the requirement of pre-requisites for various courses if required. ii) It will not be mandatory for a student to have cleared the pre-requisite course before he can be allowed to take up a particular course. However he/ she must have studied the pre-requisite course earlier and must have appeared in the end term exam of that course (i.e. he/ she must have fulfilled the attendance requirement for the pre-requisite course).
56.6	To discuss the guidelines for Audit Courses in 1 st year of UG programmes	<p>After detailed discussion on the issue, the following decisions were taken:</p> <ul style="list-style-type: none"> i) The Audit courses may be renamed as Co-curricular courses. ii) In the first year of BE programme, the Co-curricular courses would remain unchanged and would continue to be conducted in the same manner as is being following at present. iii) From 2nd year onwards every student shall be required to enroll for at least one activity (NSS/ NCC/ Games/ Technical/ Cultural)

		<p>and he/ she would continue with that activity during the remaining part of his / her BE programme. At the end of the 8th Semester, he/ she would be required to secure an “S” grade in the chosen activity to be eligible for the award of BE Degree. Modalities for evaluation would be notified later.</p> <p>iv) Complete Guidelines for Co-Curricular Courses for 1st year students are given in Annexure 56.6.1. These shall be applicable to students admitted from the session 2014-2015 onwards.</p>
56.7	To consider the Academic Calendar for the session 2014-15	The Academic Calendar was approved subject to any typing errors/ omissions being rectified. Dean Academic Affairs will notify the Calendar after corrections.
56.8	To review the attendance requirements for UG and PG students.	<p>The proposal for revision of attendance requirement was approved.</p> <p>Henceforth, attendance requirement for all UG/PG students would be as follows:</p> <ol style="list-style-type: none"> 1. All UG/ PG students must have a minimum attendance of 75% of the total number of classes including lectures, tutorials and practicals, held in a course in order to be eligible to appear in the end term examination for that course. A student should meet the above attendance requirement irrespective of the number of days he/she misses classes due to medical or any other reason whatsoever.

		2. This rule for attendance requirement would be applicable for all old and new students w.e.f. academic session 2014-15.
56.9	To consider the revised design of B.E./M.E./PhD degree and BE/ME transcripts	The proposal for adding new features to the degree and the grade sheet was approved. It was further decided that : i) The embossing of institute Seal on the degree may be supplemented by affixing a hologram on the degree. ii) Typing / formatting errors in the grade sheet template may be corrected.
56.10	To consider the seat matrix for PhD admissions	It was decided that the Seat matrix for Ph.D. admissions has to be re-worked taking into account the total number of seats including the seats that are presently filled.
56.11	Course contents for the new Departmental Elective-III for BE Civil Final Year Students	It was suggested to include a portion on GPS in the contents for the Geomatics Engg. course. The revised syllabus should be resubmitted in proper format and may be followed after its approval by the Chairman Senate.
56.12	To consider change of syllabi of courses offered by Applied Science Department	The proposal of the Applied Science department for changes in syllabi and courses offered by the department was approved. However, it was noted that course objectives were not included in the detailed syllabi. After incorporating the same, the revised contents of all the courses may be resubmitted in standard format by the department.

56.13	To consider the change in grading methodology of TAN105 (Introduction to Manufacturing) Course	Item was dropped in view of the new grading system approved by the Senate to be followed from the coming session.
56.14	To consider the interchange of theory courses of 5 th and 7 th semester of BE Aerospace Programme	Allowed as proposed (Annexure 56.14.1)
56.15	To consider semester leave to Simran Chahal, SID-13101015, Aerospace Engineering Student	The Senate approved the grant of Semester leave for the current semester (13142) to Simran Chahal, SID-13101015
56.16	To consider semester leave to Ms. Kanika Sharma, SID-11205006, Computer Sc. & Engg.	In view of the special circumstances of the case, the Senate approved the grant of leave for both the semesters of the current session 2013-2014 to Ms. Kanika Sharma, SID-11205006.
56.17	To report analysis of decline in admission in ME Environmental Engineering.	The analysis of decline in admission in ME Environmental Engineering done by the committee constituted for the purpose was considered and the suggestions for boosting the intake were approved (Annexure 56.17.1)
56.18	To report the status of registration of B.E 6 th semester Industrial training in semester 13142.	The Senate deliberated at length on the problem regarding the registration of 6 th semester students for industrial training and it was decided that the present and the former Dean of Academic Affairs will review the entire situation and their recommendations may be followed after approval of Chairman Senate.
56.19.1	Any other item: Conversion from Full Time to Part Time Ph.D. Programme.	Approved as proposed (Annexure 56.19.1.1)
56.19.2	Any other item: Addition of one elective course in BE CS& E & IT programme.	The proposal for an additional Elective course, Agile Software Development , for BE Comp. Sci. &

		<p>Engg. and BE IT programmes was approved. However, since the course contents were not available, it was decided that the same be submitted in standard format and may be adopted after getting the approval of Chairman Senate.</p> <p>It was further suggested that while addition of new Elective courses is welcome, the departments should also consider dropping of such Elective courses which have become obsolete and are not being opted by sufficient number of students.</p>
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Meeting ended with a vote of thanks to the Chair.

Evaluation and Grading of Academic performance

The Institute shall continue to follow a continuous evaluation system with some freedom being given to the course Instructor in deciding the pattern of evaluation and weightages. A typical break-up for continuous evaluation should be as given below:

- | | | |
|---|---|-----------|
| i. Mid-term Examination | : | 15 – 25 % |
| ii. End-term Examination | : | 40 – 50 % |
| iii. Assignments, Quizzes (Minimum 3), Projects | : | 30 – 40 % |

Evaluation of all components, i.e., mid-term examination, end term examination, assignments, quizzes etc. should be done in marks. The total marks thus obtained are to be converted to a letter grade. The conversion to letter grades may or may not be based on the relative performance of the students.

Structure of grading for academic performance:

The academic performance of a student shall be graded on a 10 point scale. The letter grades and their equivalent grade points are listed below:

Letter Grade	Performance	Grade Points
A ⁺	Outstanding	10
A	Excellent	9
B ⁺	Very Good	8
B	Good	7
C ⁺	Average	6
C	Below Average	5
D	Poor	4
F	Fail	-
I	Incomplete	-
N	Not Eligible	-
S	Satisfactory	-
X	Unsatisfactory	-

Explanation:

Grade 'F': 'F' grade denotes poor performance in a course and indicates failure in the course.

Grade 'N': A student who fails to fulfill the attendance requirement (clause 10.1) for a particular course shall not be eligible to appear in the end semester examination in that course and shall be awarded the grade 'N' for that course. He/she shall have to repeat the entire course.

Grade 'I': For reasons acceptable to the Instructor, an 'I' (for Incomplete) grade may be assigned if a student fails to complete any of the required course work by the end of the semester. In all such cases, an Incomplete Contract, which is a formal agreement between the student and the instructor, is to be filed along with the grade report. An Incomplete Contract includes:

- The course work that remains to be completed.
- The date by which the specified work must be completed (no later than one month of the close of relevant semester).
- The final grade to be substituted for the 'I' grade, if the specified work is not completed by the specified date.

The Incomplete Contract will be filled by the Instructor and submitted to the Academic Office when the Grade Sheet is submitted.

If the student completes the required work by the specified time, the instructor completes a grade change form indicating the final grade earned. The student should check with the instructor to ensure that a grade change form has been submitted.

If the student does not complete the required work by the specified time, the 'I' grade is automatically replaced with the final grade specified by the Instructor on the Incomplete Contract. If a final grade is not specified, or if an Incomplete Contract is not filed, the 'I' grade automatically reverts to an F grade after one month.

Grade S/X: These grades are awarded for Satisfactory / Unsatisfactory performance for zero credit courses only.

Grading System for Large Classes (>30 students)

For large classes (>30 students) the grading should follow a normal distribution for the award of the grade in the course. The marks obtained out of 100 would be converted into grades following the guidelines given below:

The mean (\bar{X}) and the standard deviation (σ) of marks obtained by all the students in a course shall be calculated. The grades shall be awarded to a student depending upon the marks and the ranges as per table given below:

Award of Grade Using Statistical Method

Lower Range of Marks	Grade	Upper Range of Marks
$> \bar{X} + 1.5 \sigma$	A ⁺	-----
$\bar{X} + 1.0 \sigma <$	A	$\leq \bar{X} + 1.5 \sigma$
$\bar{X} + 0.5 \sigma <$	B ⁺	$\leq \bar{X} + 1.0 \sigma$
$\bar{X} <$	B	$\leq \bar{X} + 0.5 \sigma$
$\bar{X} - 0.5 \sigma <$	C ⁺	$\leq \bar{X}$
$\bar{X} - 1.0 \sigma <$	C	$\leq \bar{X} - 0.5 \sigma$
$\bar{X} - 1.5 \sigma <$	D	$\leq \bar{X} - 1.0 \sigma$
	F [*]	$\leq \bar{X} - 1.5 \sigma$

Note:

1. Marginal adjustment in lower and upper range of marks may be done to accommodate natural cut-offs.
2. * The number of students securing A⁺ grade should not be more than 10%. The same percentage limit would apply to F grade.

Grading System for Small Classes (≤ 30 students)

For small classes (≤ 30 students) the grades shall be awarded on the basis of absolute marks as given in the table below:

Grade	Marks (M)
A ⁺	$M \geq 85$
A	$80 \leq M < 85$
B ⁺	$70 \leq M < 80$
B	$60 \leq M < 70$
C ⁺	$50 \leq M < 60$
C	$40 \leq M < 50$
D	$35 \leq M < 40$
F	< 35

Measure of student's overall academic performance

A student's overall academic performance within a given semester or in all the courses completed is measured by two grade point averages.

Semester Grade Point Average (SGPA): The performance of a student in a particular semester is measured by Semester Performance Index (SGPA), which is a weighted average of the grades secured in all the courses taken in a semester and scaled to a maximum of 10.

If the grade points associated with the letter grades awarded to a student are g_1, g_2, g_3, g_4 and g_5 in five courses and the corresponding credits are w_1, w_2, w_3, w_4 and w_5 , respectively, the SGPA is given by

$$\text{SGPA} = \frac{w_1 g_1 + w_2 g_2 + w_3 g_3 + w_4 g_4 + w_5 g_5}{w_1 + w_2 + w_3 + w_4 + w_5}$$

For instance, suppose a student is registered for one 5-credit course, four 4-credit courses, and one 3-credit course during a semester, i.e. a total of 24 credits. If he secures A⁺, A, B⁺, C⁺, C, and D grades, respectively, in these courses, his SGPA will be calculated as follows:

$$\text{SGPA} = (5 \times 10 + 4 \times 9 + 4 \times 8 + 4 \times 6 + 4 \times 5 + 3 \times 4) / 24 = 174 / 24 = 7.2$$

SGPA is calculated up to one decimal place only.

Cumulative Grade Point Average (CGPA) - The Cumulative Performance Index (CGPA) indicates the overall academic performance of a student in all the courses registered up to and including the latest completed semester/summer term. It is computed in the same manner as the SGPA, considering all the courses (say, n), and is given by

$$\text{CGPA} = \frac{\sum_i w_i g_i}{\sum_i w_i}$$

The grades of any and all repeated courses are included in the official transcripts. However, once a student repeats and passes a course in which he/ she had failed earlier, the earlier fail grade will not enter into the computation of CGPA. Incomplete grades are not included in computing the GPA until an appropriate letter grade is assigned. CGPA of 6.0 or higher is considered to be a 1st division (> 60% marks).

Re- Examination

Every student will be allowed to take end term exam again in a maximum of two courses in which he/ she scores an 'F' grade in a particular semester. If he/ she, on re-examination, scores sufficient marks to cross the cut-off for clearing a particular course (adopted during the regular evaluation for that course) then he/ she will be awarded a 'D' grade.

Honours Credits

Honours credits shall be allowed in a course only if a student achieves the requisite score in the Honours part and gets a B⁺ grade or higher in the common evaluation for that particular course.

ME Dissertation

- 1) The course PRN 598 (Project/Industry based project I) and PRN 599 (Project/Industry based project II) shall be renamed as M.E. Dissertation I and M.E. Dissertation II. This Dissertation may be related to an Industry based project.
- 2) There shall be two evaluations of M.E. Dissertation – the first at the end of third semester (for 12 credits) and the second at the end of fourth semester (for 18 credits). The work done at the end of 3rd semester shall be submitted in the form of a report. A Dissertation shall be submitted at the end of 4th semester.
- 3) The evaluation criterion shall be as under:-

Evaluation at the end of 3rd semester

Subject matter	-	10%
Literature review	-	10%
Objectives and methodology	-	20%

Evaluation at end of 4th semester

Dissertation	-	30%
Presentation	-	10%
Viva-voce	-	10%
Publication	-	10%

For publications, the following guidelines are to be followed for award of marks by the Examination Board:

- (i) Up to 10% : Published/accepted for publication in journal, with the consent of the Supervisor.
 - (ii) Up to 8% : To be considered for possible publication in journal after revision with the consent of the Supervisor.
 - (iii) Up to 5% : Communicated for possible publication in a journal/ Presented or accepted/communicated for possible presentation in a Conference with the consent of the Supervisor.
- 4) The Examination Board for ME thesis evaluation at end of 3rd/ 4th Semester would consist of the following:-
 - (i) Chairman DAPC or his/her nominee
 - (ii) Faculty Co-ordinator programme, Convener
 - (iii) Supervisor
 - (iv) One faculty from within the department
 - (v) External examiner from reputed organization.

In case of evaluation at the end of 3rd semester, the member at S.No. (v) may be dropped, if not available.

The weightages for the various components of evaluation would be distributed between the Supervisor and the Examination Board as follows:

Supervisor	-	50%
Examination Board	-	50%

While evaluating the dissertation, each member of the Examination Board will independently award marks for various components of evaluation. The average of all the marks awarded for each component will be taken as the final marks scored by a student.

The evaluation would be done in the form given in proforma 1 & 2.

- 5) For calculation of SGPA and CGPA at the end of 3rd semester only the credits of Seminar and Technical writing, Case history and Industry Experiences shall be taken into account. The grand total of marks obtained at the end of 3rd and 4th semester shall be converted into grades as follows:-

ME students of 2013 batch

<u>Grade</u>	<u>Points</u>	<u>Marks (M)</u>
A	10	$M \geq 85$
B	8	$70 \leq M < 85$
C	6	$50 \leq M < 70$
D	4	$35 \leq M < 50$
F		< 35

ME students 2014 Batch onwards

<u>Grade</u>	<u>Points</u>	<u>Marks (M)</u>
A+	10	$M \geq 85$
A	9	$80 \leq M < 85$
B+	8	$70 \leq M < 80$
B	7	$60 \leq M < 70$
C+	6	$50 \leq M < 60$
C	5	$40 \leq M < 50$
D	4	$35 \leq M < 40$
F		< 35

- 6) In case the M.E. Dissertation is graded F, the candidate may be allowed to resubmit the M.E. Dissertation after nine months subject to maximum duration of the programme.

Guidelines for Co-curricular Courses in 1st year of UG programmes

1. Co-curricular courses of Physical Education, NSS and NCC would be offered as non-credit courses with 0-0-2 structure in the 1st year of UG programmes.
2. Vacancies in NCC would be given by O/I NCC. Vacancies in NSS, as given by O/I NSS, are 300. Allotment in co-curricular courses of Physical Education/ NSS/ NCC will be made as follows:
 - a. Co-curricular Courses will be allotted after taking choice from students, using JEE Mains rank as a criterion.
 - b. Co-curricular Course allotment would be same for 1st & 2nd Semester.
3. To ensure that all students complete this course requirement by the end of the second year, students who fail to do so will not be eligible to pre-register/ register for courses of fifth semester.

Annexure 56.14.1

Interchange of theory courses of 5th and 7th semester of BE Aerospace Programme

As per recommendation received from DAPC of Aeronautical Engineering Department, course AE314/314H (Vibration & Aero Elasticity) (currently taught in 5th semester) and the course AE412/412H (Airplane Stability and Control) (currently taught in 7th semester) may be interchanged.

These courses would therefore be offered in 2014-15 and 2015-16 as follows:

Semester	Course	To be offered to
14151	Airplane Stability and Control	BE (Aerospace Engineering) 5 th Semester, and BE (Aerospace Engineering) 7 th Semester
15161	Vibration & Aero Elasticity	BE (Aerospace Engineering) 7 th Semester

Conversion from Full Time to Part Time Ph.D. Programme

There are full-time Ph.D. scholars in the institute who are getting institute scholarships. Requests for conversion of Ph.D. programme from full time to part time are being received from such scholars in the office of Dean Academic Affairs and a few conversions have been allowed in the past.

However, for better output and continuity, the conversion of Ph.D. programme from full time to part time in respect of Ph.D. scholars who are getting institute scholarship will not be allowed in the future for a period of three years for students admitted w.e.f. January 2014 and an undertaking has been taken from the students in this regard after approval from the Chairman Senate.