

2. Grading & Assessment Schemes

2.1 Course number coding scheme

A course is identified by a course code designated by a string of five alphanumeric characters and a course title. In a course code, first two letters of the string indicate the Department offering the course and the later three numerals designate a particular course. However, in the case of Institute core the code consist of three letters with the first letter 'I' identifying Institute core, the next two letters denoting the Academic Department and the last two numerals denoting the course numbers.

The letters symbolizing various Academic Department offering a course are:

AR	Architecture	BM	Management studies
CE	Civil Engineering	CH	Chemical Engineering
CP	Computer Engineering	CY	Chemistry
EC	Electronics & Communication Engineering	EE	Electrical Engineering
HS	Humanities & Social Sciences	MA	Mathematics
ME	Mechanical Engineering	MT	Metallurgical Engineering
PH	Physics	ST	Structural Engineering.

Course number

The first digit will correspond to the level (year) at which a course is normally offered. The last two digits denote the number of the course, which will usually be odd for courses offered in the Autumn Semester and even for courses in the Spring Semester.

Teaching engagements

Every course maintains some teaching schedule for which weekly contact hours are decided for delivering lectures, engaging tutorials/studio and performing practicals to make learning in a course more effective.

L: Lecture T: Tutorial P: Practical D: Drawing ST: Studio

In the syllabi, the information regarding number of course credits and contact hours per week is denoted as: Cr: 5 (3-1-2)

Course categories

Undergraduate (UG) programme has many categories of courses represented by following notations:

BS	Basic Science Courses	ECA	Extra Curricular Activities
DC	Departmental Core Courses	ESA	Engineering Sciences and Arts Courses
DE	Departmental Electives	HS	Humanities and Social Sciences
IC	Institute Core Courses	BM	Management Courses
IE	Institute Electives		

Weightage for course evaluation

Evaluation in every course is based on the weightage assigned to various components of the course curriculum. These components are designated as under:

CWS	Class Work Sessional	PRS	Practical Sessional
ETE	End Term Examination	PRE	Practical Examination

MTE Mid Term Examination

The description of credits and delivery hours of courses is as per illustration in Table 3.

As an example, CH 304: Reaction Engineering refers to a course, offered by the Department of Chemical Engineering to the third year of the B.Tech. (Chemical Engg.) Programme and is offered in the Spring Semester.

Table 3-Description of credits and delivery hours

Course Code			Credit Cr.	Contact Hours/Week		
Department Code	Course Number	Course Title		Lecture L	Tutorial T	Practical P
CH	304	Reaction Engineering	4	3	2	0

2.2 Credit System

Table 4 illustrates the minimum cumulative credits to be earned for continuation of registration in the next academic year.

Table 4-Minimum cumulative credits requirements (See Section R.15 on Page 20)

Year	B.Tech.	B. Arch.
I Yr. *	28	28
II Yr. *	60	60
III Yr. *	94	94
IV Yr. *	130	130
V Yr. *	166	165
VI Yr. *	192 [#]	192
VII Yr. *		214 [#]

* Including credits, if any, earned during summer terms; but excluding Sports/Creative arts/NSS/Discipline credits.

[#] The figure should not be less than the minimum prescribed.

2.3 Grading System

The Grades are being awarded as per the Table 5.

Table 5-Structure of grading of academic performance

Academic Performance	Grades	Grade Points
Outstanding	A+	10
Excellent	A	9
Very Good	B+	8
Good	B	7
Average	C+	6
Below Average	C	5
Marginal	D	4
Poor	E	2
Very Poor	F	0
Audit	AU	-
Incomplete	I	-
Withdrawal	W	-
Continued Project	X	-
Non completion of Course Requirement	Z	-

Explanation:

'E' and 'F' Grades

The 'E' and 'F' grades denote poor and very poor performance, i.e. failing a course. 'F' grade is also awarded in case of poor attendance (see Attendance Regulations). A student has to repeat all compulsory (core) courses in which she/he obtains either 'E' or 'F' grades, until a passing grade is obtained. However, in the final project if the student fails, he will be eligible to repeat the same.

For the other (elective) courses in which 'E' or 'F' grades have been obtained student may take the same course or any other course from the same category. Further, 'E' or 'F' grades secured in any course stay permanently on the grade card. The weightage of these grades is not counted in the calculation of the CGPA; however, these are counted in the calculation of the SGPA.

A candidate failing in a subject and obtaining grade 'E' would be required to appear only in the End-term examination of the same subject at the next earliest opportunity. However, if a candidate opts to repeat his Mid-term tests also, he/she may be permitted to do so. In that case, his/her earlier marks will be automatically stand cancelled in the subject. A candidate failing in a subject and obtaining grade 'F', he/she will be required to repeat the entire course at the earliest opportunity. In case a student has not been permitted to appear in the End-term examination because of his shortage of attendance, he/she shall have to attend the course again and put minimum attendance required, in order to appear in the End-term examination.

AU Grade

This grade is awarded to an audit course as specified in Section R.27 and is not counted in the computation of SGPA/CGPA.

'I' Grade

This refers to an 'incomplete' grade, which is required to be converted into a regular letter grade as provided in Section R.24.5.

'W' Grade

This refers to withdrawal from a course as provided in Section R.24.6.

'X' Grade

This grade is awarded for incomplete Project work and will be converted to a regular grade on the completion of the Project work and its evaluation.

SGPA and CGPA calculation

Calculation of Semester Grade Point Average (SGPA)

$$SGPA = \frac{\sum_{i=1}^n C_i p_i}{\sum_{i=1}^n C_i}$$

Where,

- C_i Number of credits earned in the i^{th} course of Semester for which SGPA is to be calculated.
- P_i Grade point earned in i^{th} course.
- i 1...n represents the number of courses in which a student is registered in the concerned semester.

Calculation of Cumulative Grade Point Average (CGPA)

$$CGPA = \frac{\sum_{j=1}^m C_j p_j}{\sum_{j=1}^m C_j}$$

Where,

- C_j Number of credits earned in the j^{th} course of Semester for which SGPA is to be calculated.
- P_j Grade point earned in i^{th} course; A grade lower than D(i.e. grade point < 4) in a course shall not be taken into account
- j 1...n represents the number of courses in which a student was registered and obtained a grade not lower than D upto the semester for which CGPA is to be calculated.

2.4 General Guidelines for the Award of Grades

The Following are the general guidelines for the award of grades:

- (i) All evaluations of different components of a course shall be done in marks for each student.

- (ii) The marks of various components shall be reduced to approve weightage (as decided by the DFB and/or indicated in the scheme of Teaching and Examination) and added to get total marks secured on a 100-points scale. The rounding off shall be done on the higher side.
- (iii) For less than 15 students in a course, the grades shall be awarded on the basis of cutoff in the absolute marks, for example, as in Table 6.
- (iv) For more than 30 students in a course, the statistical method shall be used for the award of grades with or without marginal adjustment for natural cut off. The salient features of the statistical method are given in Table 7.
- (v) For strength of student in any course between 15 and 30, any of the above methods as in Para (iii) or (iv) (Table 6/ Table 7) may be used for the award of grades.
- (vi) A+ (A Plus) grade shall not be awarded for percentage of marks less than 80 under any circumstance. There will not be more than 10% (rounded off to integer value) A+ grade in any course.
- (vii) D grade shall not be awarded for percentage of marks less than 35 in any case. Still further, no student having 40% or more marks would be awarded failing grades of E or F.
- (viii) The overall distribution of number of different grades shall be according to the statistical distribution (Normal distribution) to the extent possible.
- (ix) The provisional grades shall be awarded by the Coordination Committee of the course consisting of all the teachers involved in that course. The grades should be finalized within 3 days of the End-Term Examination. The course Coordinator shall have full responsibility for this purpose.
- (x) The grades so awarded will be moderated by a grade Moderation Committee for that class of a Department. This Committee will finalize the grades and display a copy of the grades awarded on the Notice board of the Department/Academic Section. All the final grades shall be communicated to the Academic Section within seven days from the last date of the End-Term Examination. The Chairman, Grade Moderation Committee shall retain the records of all the marks and grades and shall forward one copy of all records to the Chairman, DUGC.
- (xi) The procedures for evaluation and award of grades for project, training, seminar and group discussion shall be decided by the respective DFB.

Project evaluation and the award of 'X' Grade A student is required to submit a Project as per Table 2. A student who is unable to complete his/her Project may be awarded an 'X' grade on the recommendation of an Evaluation committee consisting of (i) Head of the Department or his/her nominee; (ii) Chairman, DUGC or his/her nominee, and (iii) Coordinator(s) and/or Supervisor(s) of the Projects. The student concerned shall have to present his/her work to the Evaluation Committee for the Project latest by 4 weeks before the beginning of the next semester.

A student shall be awarded an 'X' grade under the circumstances described below and he/she will be required to formally register for the next Semester and pay the fees.

'X' grade will be awarded in exceptional circumstances beyond student's/supervisor control. Normally, the following grounds may be considered for the award of 'X' grade.

- (a) Medical grounds
- (b) Technical reasons/grounds.

Award of Grade Based on Absolute Marks

The award of grades based on absolute marks out of 100 shall be made as follows:

Table 6-Grades according to absolute marks

Marks	Grade [#]		Marks
91	<	A+	< 100
82	<	A	< 90
73	<	B+	< 81
64	<	B	< 72
55	<	C+	< 63
46	<	C	< 54
40	<	D	< 45

Note:-

[#]Please note that these cut-offs are indicative only and the scheme is flexible to the recommendation of the individual course coordinators and/or moderation process with proper justification.

Statistical Method for the Award of Grades

For the award of grades in a course, all component wise evaluation shall be done in marks. The marks of different components viz. Mid-Term Examinations (MTE), End-Term Examination (ETE), Course Work Sessionals (CWS), Practical Sessional (PS) etc. would be reduced to relative weightage of each component as approved by the Senate and added Marks so obtained shall be out of 100 and the same would be converted to grades following the guidelines given below.

For 30 or more number of students in a course, the statistical method shall invariably be used with marginal adjustment for natural cut off. The mean (\bar{x}) and the standard deviation (σ) of marks obtained of all the students in a course shall be calculated and the grades shall be awarded to a student depending upon the marks and the mean and the standard deviation as per Table given below.

Table 7-Grades using statistical method

Lower Range of Marks	Grade		Upper Range of Marks
$\bar{x} + 1.5 \sigma$	<	A+	
$\bar{x} + 1.0 \sigma$	<	A	< $\bar{x} + 1.5 \sigma$
$\bar{x} + 0.5 \sigma$	<	B+	< $\bar{x} + 1.0 \sigma$
\bar{x}	<	B	< $\bar{x} + 0.5 \sigma$
$\bar{x} - 0.5 \sigma$	<	C+	< \bar{x}
$\bar{x} - 1.0 \sigma$	<	C	< $\bar{x} - 0.5 \sigma$
$\bar{x} - 1.5 \sigma$	<	D	< $\bar{x} - 1.0 \sigma$

2.5 Guidelines for deduction of marks for mass abstention from classes

A fine of 5 marks for undergraduate students out of the discipline group, will be imposed on each of the students by the Head of the Department on the recommendation of Course Coordinators and Chairman, DUGC, for mass abstention from a class. The maximum fine for a day would be limited to 15. For B.Tech. I year students such fine shall be imposed by the First year Class Coordinator. All such fines shall be communicated to Dean of Students Affairs for records. The marks so fined will not be converted into monetary fine.

If the disciplinary marks are exhausted for a student, additional fine of marks would be converted to monetary fine. For the purpose of calculating equivalent monetary fine from marks or vice-versa, one mark shall be treated as Rs. 100/- or the amount approved by the Director from time to time on the recommendation of the Dean of Students' Affairs.