



शैक्षणिक अफेयर्स कार्यालय  
भारतीय प्रौद्योगिकी संस्थान रुड़की  
रुड़की-247 667, हरिद्वार (उत्तराखण्ड), भारत  
ACADEMIC AFFAIRS OFFICE  
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE  
Roorkee – 247 667, Haridwar (Uttarakhand), INDIA  
Website : [www.iitr.ac.in](http://www.iitr.ac.in)

संख्या/No/Acad/Gen./.....705.....

दिनांक/Date.....03.02.2023.....

## TO WHOM IT MAY CONCERN

### Calculation of Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA)

The letter Grades awarded to a student in all the courses (except audit courses) shall be converted into a semester and cumulative performance index called the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA), to be calculated as follows:

$$S.G.P.A = \frac{\sum_{i=1}^n C_i \times P_i}{\sum_{i=1}^n C_i}$$

Where,

$C_i$  = Number of credits of the  $i$  course of a semester for which SGPA is to be calculated

$P_i$  = Grade point obtained in  $i$  course

$i$  = 1,..... n, represent the number of courses in which a student is registered in the concerned semester.

$$C.G.P.A = \frac{\sum_{i=1}^m C_i \times P_i}{\sum_{i=1}^m C_i}$$

Where,

$C_i$  = Number of credits of the  $i$  course, up to the semester for which CGPA is to be calculated. The CGPA shall be calculated taking all the subjects registered including a course in which 'F' grade is awarded till date starting from the beginning but if the student has cleared a course, in which the student had backlog, the new grade will replace the old grade while calculating CGPA.

$P_i$  = Grade point earned in  $i$  course.

$i$  = 1,..... m; represent the number of courses in which a student was registered till date.

### **Conversion of CGPA to Percentage**

The conversion formula for CGPA to equivalent percentage for training and placement purpose is as follows:

CGPA	Equivalent percentage of marks
4.00 ≤ CGPA ≤ 9.00	10 * CGPA + 5.00
CGPA > 9.00	95.00

*Rajesh*  
Assistant Registrar (Evaluation)