



HKE SOCIETY'S

PDA COLLEGE OF ENGINEERING, KALABURAGI

(Autonomous Institute Affiliated to VTU, Belagavi)

ACADEMIC RULES AND REGULATIONS

Governing the Degree of Bachelor of Engineering (B.E.)
Applicable to all Autonomous B.E. Undergraduate Programmes

(With Effect from 2021-22 Academic Year)



Academic Rules and Regulations*
(With Effect From the Academic Year 2021-22)

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1. SHORT TITLE AND COMMENCEMENT

1.1 The regulations listed under this head are common for all Programs offered by the college and are amended based on the **Visveswaraya Technological University Guidelines and norms for Implementation of Academic Autonomy in institutions (2018) Amendments in 2022** and Guidelines for the implementation of National Education Policy 2020. These regulations shall be effective from academic year 2021-22.

1.2 The regulations are subject to amendments made by the Academic Council with the approval of the BOG of the college from time to time, and keeping the recommendations of the Board of Studies in view and affiliating university.

2. DEFINITIONS OF KEY WORDS

- a)** University: Visvesvaraya Technological University (VTU), Belagavi.
- b)** College/Institute: Poojya Doddappa Appa College of Engineering (PDACE), Kalaburagi.
- c)** Commission: University Grants Commission (UGC).
- d)** Council: All India Council for Technical Education (AICTE).
- e)** Program: This is an educational program in a particular stream/ branch of Engineering/branch of specialization leading to the award of the Degree. It involves events/activities, comprising of lectures/tutorials/laboratory work/fieldwork/outreach activities/project work/vocational training/ viva-voce/ seminars/ internship/assignments/ presentations/ self-study, etc., or a combination of some of these.
- f)** Semester: Refers to one of the two sessions of an academic year, each session being of sixteen weeks' duration (with not less than 90 working days). The odd and even semesters shall be as per the academic calendar.



- g) Academic Year: Refers to two consecutive semesters (odd followed by an even) sessions, including intervening periods.
- h) Course: Usually referred to as subject and is a component of a Program. All Courses may not carry the same weightage. Each Course will have course objectives and course outcomes. A Course may be designed to comprise lectures/ tutorials/ laboratory work/ fieldwork/ outreach activities/project work/ vocational training/ viva-voce/ seminars/ term papers/assignments/ presentations/ self-study components etc., or a combination of some of these.
- i) Credit: Refers to a unit or weightage by which the Coursework is measured. It represents the number of hours of instructions prescribed per week. One credit is equivalent to one hour of lecture or two hours of laboratory/practical Courses/ tutorials/ fieldwork etc., per week.
- j) Choice Based Credit System (CBCS): The education model refers to customizing the Coursework, through Core, Professional Elective, Open Electives, Skill-based ability Enhancement Courses, Non-Credit Mandatory Courses, and Internships to provide the necessary support for the students to achieve their goals.
- k) Course Registration: Refers to formal registration to Courses of study in every semester by every student under the supervision of a Faculty Advisor (also called Mentor, Counsellor, Class teacher, etc.), in the Institution to maintain the proper record, registration for the courses of study is mandatory.
- l) Course Evaluation: Represents the measurement of the impact of the teaching-learning process and offers an opportunity for improving the quality of learning in courses and teaching performance. Courses evaluation is done by adopting different methods such as tests, quizzes, assignments, etc., during the teaching-learning period at the end of some modules or chapters of syllabus contents and at the end of the semester. While the former part of the evaluation is called the Continuous Internal Evaluation (CIE) and the later part of the evaluation is called Semester End Evaluation (SEE).
- m) Continuous Internal Evaluation (CIE)(also known as formative assessment): Refers to the evaluation of students' performance in the course during the teaching-learning process. CIE shall be done by



the faculty teaching course and evaluation components may include tests, assignments, group discussion, quizzes, course-specific projects, seminars, etc., conducted during the semester tenure with a weightage for different activities as specified.

- n) Semester End Examinations Evaluation (SEE)(also called summative assessment): Refers to the examinations conducted by the college covering the entire Course Syllabus. For this purpose, Syllabi shall be modularized, and SEE questions shall be set from each module as specified.
- o) First Attempt: Refers to some students who have studied in a current semester and have attended any one of the examinations of that semester after satisfying attendance and CIE requirements of all the prescribed courses of that semester and registering for SEE. Such an attempt shall be considered as the first attempt. Even if students absent themselves for all the semester examinations after registering for SEE, such an attempt shall also be considered the first attempt.
- p) Credit Representation: Refers to the Credit Values for different academic activities considered, as per Table-1. Credits for the seminar, project phases, project viva-voce and internship shall be as specified in the Scheme of Teaching and Examinations.

Table 1: Typical Credit Structure for Course Work

Lectures (L) (hrs/wk/Sem)	Tutorials (T) (hrs/wk/Sem)	Lab. Work (L) (hrs/wk/Sem)	Credits (L:T:L)	Credits (Total)
2	2	2	2:1:1	4
3	0	0	3:0:0	3
2	2	0	2:1:0	3
2	0	2	2:0:1	3
0	0	6	0:0:3	3
2	0	0	2:0:0	2
0	2	0	0:1:0	1
0	0	2	0:0:1	1

- q) Non-Credit Mandatory Course (NCMC): In the case of non-credit mandatory courses, students shall attend the classes during the respective semesters to satisfy the attendance requirements and as well as CIE requirements. In case, any student fails to register for the said course/fails to secure the minimum 40% of the prescribed CIE marks, he/she shall be deemed to have not satisfied. In



such a case, the student has to fulfill the requirements during subsequent semester/s to appear for CIE. These Courses shall not be considered for CGPA calculation and vertical progression, but completion of the courses shall be mandatory for the award of degree.

- r) Letter Grade: Course Letter Grade (or simply letter grade or grade) is an index of performance of a student in a said course and refers to a qualitative measure of achievement of a student in each course, based on the percentage range of marks secured in CIE and SEE put together or CIE alone. Grades are denoted by letters O, A+, A, B+, B, C, P, and F. The rubrics attached to letter grades are as follows:

O – Outstanding, A+ – Excellent, A – Very Good, B+ – Good, B – Above Average,

C – Average, P- Pass and F – Fail.

If a student remains absent for SEE of any of the course/s, the letter grade assigned to that course shall be F. If a student is not eligible for appearing, SEE due to noncomply of any of the course/s then the letter grade assigned against that course shall be NE

Table 2: Letter Grade and corresponding Grade Points on 10- Point Scale

Level	Out Standing	Excellent	Very Good	Good	Above Average	Average	Pass	Fail
Grade	O	A+	A	B+	B	C	P	F
Grade Points	10	9	8	7	6	5	4	0
Score (Marks) Range %	90-100	80-89	70-79	60 - 69	55 - 59	50-54	40-49	0-39

- s) Grade Point (GP): Refers to a numerical weightage allotted to each letter grade on a 10-point scale against a preconceived range of percentage of marks secured by students in a course as shown in Table 2.
- t) Passing Standards: Refers to passing a Course only when GP is greater than or equal to 04.
- u) Credit Point: This is the product of GP and number of credits for a Course i.e., Credit points (CrP) = GP × Credits for the Course.



- v) Semester Grade Point Average (SGPA): Refers to the measure of a student's academic performance in a semester. It is the weighted average or weighted mean of the grade points obtained by a student in the various courses of any semester. It results in a number that lies between 0 and 10.
- w) Cumulative Grade Point Average (CGPA): This is a measure of the cumulative performance of a student of all semesters and is computed from the 2nd semester onwards. It is a measure of the overall cumulative academic performance of a student over the entire span of the academic program. CGPA is not an arithmetic mean but weighted mean. It is also a number that lies between 0 and 10.
- x) Grade Card: Refers to the certificate showing the grades earned by a student. A grade card shall be issued to all the registered students after every semester-end examination. The grade card shall have the Program details (Course code, title, number of credits, grades secured, and alternate course taken instead of successive failure after 4 attempts) along with the SGPA of that semester and CGPA (except for the first semester) earned till that semester.
- y) Academic Bank of Credits (ABC): The Academic Bank of Credits (ABC), is a national-level facility which will promote the flexibility of the curriculum framework and interdisciplinary/multidisciplinary academic mobility of students across the Higher Education Institutions (HEIs) in the country with appropriate "credit transfer" mechanism.
- z) Multiple Entry Multiple Exit: The multiple entries and exit points in the academic programs offered at HEIs would remove rigid boundaries and create new possibilities for students. There are occasions when learners have to give up their education mid-way for various reasons. To facilitate flexible learning within the stipulated period (eight years for regular students and 06 years for lateral entry students), multiple exit and entry options are given to the needy students. The student can exit from the program only at the end of the even semester/s (2nd, 4th, and 6th semester) and the entry option is provided to the students at the beginning of the odd semester/s (3rd, 5th and 7th semester).



3. PREAMBLE

Poojya Doddappa Appa (PDA) College of Engineering Kalaburagi affiliated to Visvesvaraya Technological University (VTU), Approved by AICTE New Delhi and funded under TEQIP, is one of the oldest and reputed Institutes in the state of Karnataka. The college was established in the year 1958, and it is the first Engineering College in the Kalyana Karnataka area. Recognizing the excellent facilities, faculty progressive outlook, high academic standards and record performance, the Government of Karnataka and Visvesvaraya Technological University Belgaum, reposed abundant confidence in the capabilities of the College, and conferred Autonomous Status from the academic year 2007-08, to update the curricula and introduce new Programs and to devise and conduct examinations.

The academic autonomy has provided a golden opportunity for the College to emerge as a leading technical institute in the country by not only meeting the 21st century challenges faced by the technical education system in our country, but also formulating the curriculum that meets the global requirements.

Vision of the Institute

To be an institute of excellence in technical education and research to serve the needs of the industry and society at local and global levels

Mission of the Institution

- **To provide a high-quality educational experience for the students with values and ethics that enables them to become leaders in their chosen profession.**
- **To explore, create and develop innovations in engineering and science through research and development activities**
- **To provide beneficial service to the national and multinational industries and communities through educational, technical and professional activities.**



4. TITLE AND CREDITS OF THE PROGRAM OF STUDY

4.1 General

- a) The Academic Autonomy is applicable for all Programs offered by the college: B.E. Degree Programs at Undergraduate (UG) and M. Tech. Program at Post Graduate (PG). The Programs fulfill the minimum academic quality and standards for the award of Degrees prescribed by the University, the Council and the Commission.
- b) The Academic Autonomy provides an opportunity to the college to make schemes of instruction, syllabi, scheme of examinations and other aspects, with approval of its Academic Council, while fulfilling the minimum academic standards of the University for the Award of Degrees.
- c) The College has the freedom to start Diploma (post- polytechnic) Diploma, post-UG and post-PG levels) and/or Certificate Programs with the approval of its Academic Council. The issuance of certificates/diplomas on completion of such Programs shall be made under the seal of the concerned College only.
- d) The College has the freedom to evolve methods for assessing the students' performance, notifying the results, issuing the grade cards/transcripts, migration and other certificates except the Degree Certificates.
- e) In order to get the various benefits of academic autonomy, the College structures its various academic Programs based on the Semester Scheme by introducing Credits for academic activities, bring in Examination Reforms for better achievement, award Letter Grades and Numerical Grade Points/ Averages for students' performance and set appropriate Passing Standards as covered later in these Regulations.
- f) Following the guidelines recommended by the University, with regard to Semester Scheme, Credit System, Examinations, Letter Grades and Numerical Grade Points/Averages, enables students to avail of horizontal/ vertical mobility and transfer of credits from one Autonomous College to another and related benefits of academic autonomy.



4.2. Under Graduate (UG) Level

The UG courses in engineering shall be called as degree courses in Bachelor of Engineering abbreviated as B.E. The course will extend over a period of four years duration, which will be divided into eight semesters. The branches of engineering will be indicated in brackets after the abbreviations as required by the AICTE and UGC. Typical examples are B.E.(Civil Engineering) and B.E.(Mechanical Engineering).

The following are the B.E. degree Programs offered by the college.

Table 3A: Programs of study for B.E. Courses

SL No.	Name of the Program	Abbreviation	Established
1.	Civil Engineering	CV	1958
2.	Mechanical Engineering	ME	1958
3.	Electrical & Electronics Engineering	EE	1958
4.	Electronics & Communication Engineering	EC	1967
5.	Industrial & Production Engineering	IP	1981
6.	Electronics and Instrumentation Engineering	EI	1982
7.	Architecture	AT	1982
8.	Ceramic and Cement Technology	CC	1984
9.	Computer Science and Engineering	CS	1984
10.	Automobile Engineering	AU	1985
11.	Information Science and Engineering	IS	2000
12.	Computer Science and Design	CG	2021
13.	Artificial Intelligence and Machine Learning	AI	2021
14.	Energy Engineering	EEG	2022



4.3. Post Graduate (PG) Level

The PG courses in engineering shall be called as degree courses in Master of Technology abbreviated as M. Tech. The specialization of a PG course will be indicated in brackets after the abbreviations as required by the AICTE and UGC. Typical examples are M. Tech. (Power Electronics) and M. Tech. (Production Engineering).

The following are the M. Tech Programs offered by the college.

Table 3B: Specializations offered for M. Tech. courses

Sl. No.	Department	Name of the PG Programme	Abbreviation	Established
1.	Civil Engineering	Structural Engineering	CSE	1987
2.		Environmental Engineering	CEE	1982
3.	Mechanical Engineering	Thermal Power Engineering	MTP	1982
4.		Production Engineering	MPE	1992
5.	Electrical Engineering	Power Electronics	EPE	1982
6.	Electronics & Communication Engineering	Communication Systems	LCS	1995
7.	Computer Science & Engineering	Computer Science & Engineering	SCS	1998
8.		Computer Network & Engineering	SCN	2014
9.	Electronics and Instrumentation Engineering	Biomedical Electronics and Industrial Instrumentation	LMI	2000
10.	Ceramic & Cement Technology	Material Science and Technology	MST	2014

The College offers Doctor of Philosophy (Ph.D) under University. The research centres recognized by the University are listed in Table 1C.



Table 3C: Research Centres offering PhD

Sl. No.	Name of the Research Centre	Established
1.	Civil Engineering	2002
2.	Mechanical Engineering	2011
3.	Electrical & Electronics Engineering	2006
4.	Electronics & Communication Engineering	2002
5.	Industrial & Production Engineering	2005
6.	Electronics and Instrumentation Engineering	2012
7.	Ceramic and Cement Technology	2012
8.	Computer Science and Engineering	2012
9.	Automobile Engineering	2013
10.	Information Science and Engineering	2013
11.	Mathematics	2013
12.	Chemistry	2013
13.	Physics	2020

4.4 Prescribed Number of Credits for the Program

- (a) The total number of credits to be earned by students admitted to the first semester of 04 years B.E./ B.Tech., the program shall be 160.
- (b) The total number of credits to be earned by students admitted to the third semester of 04 years B.E./B.Tech., program under lateral entry scheme shall be 120.
- (c) A student shall be eligible to obtain an Undergraduate degree with Honours / Minors, if he/she earns minimum additional 18 credits, as specified by the norms from time to time regarding the earning of additional credits[To be read along with Regulations Governing the Award of Honors/ Minors in B.E./B.Tech., Degree Programs].



The total number of credits to be earned by a student to qualify for the Degree award from each Autonomous College is as given in Table 4.

Table 4: Total Credits to be earned for Award of Degree

Programme		Normal Duration		Total number of Credits to be Earned
		Years	Semesters	
UG Degree	B. E.	4.0	8	160
	B. E. (Lateral Entry)	3.0	6	120

4.5 Credit Structure

A typical Credit Structure for course work is given in Table 5. This shall be applicable for the coursework of students registered for all programmes offered by the institution.

Table 5: Typical Credit Structure for Course Work

Lectures (L) (hrs/wk/Sem)	Tutorials (T) (hrs/wk/Sem)	Lab. Work (L) (hrs/wk/Sem)	Credits (L:T:L)	Credits (Total)
2	2	2	2:1:1	4
3	0	0	3:0:0	3
2	2	0	2:1:0	3
2	0	2	2:0:1	3
0	0	6	0:0:3	3
2	0	0	2:0:0	2
0	2	0	0:1:0	1
0	0	2	0:0:1	1

- Lectures : One Lecture hour per week one credit.
- Tutorials : Two Tutorial hours per week one credit.
- Practical : Two Practical hours per week one credit.

However, in case of Supplementary semester, the course load is multiplied by two. These regulations form the basis to fix semester course load & weekly contact hours in the regular/Supplementary semesters.

Note: Other student activities like study tours, industrial visits, guest lecturers shall not carry any credits



5. ELIGIBILITY FOR ADMISSION

5.1. For B.E Program

Admission to I year, (I & II semester) B.E. degree, shall be open to the candidates who have passed the second year Pre- University or XII standard or equivalent examination recognized by Govt. of Karnataka and VTU Belagavi. Admission to II year, (III semester) (Lateral Entry) shall be open to the candidates who are holders of a Diploma or equivalent examination recognized by Govt. of Karnataka and VTU Belagavi. Candidates are required to satisfy the conditions of admission there to prescribed by the Government of Karnataka and VTU Belagavi

5.2 Qualification earned from foreign countries

With regard to the qualification earned from foreign countries, an equivalence certificate from the University/ Association of Indian Universities is mandatory for admission to B.E./B.Tech. Programs. In case of any dispute about the equivalence in qualification earned from foreign countries, the decision of the University/Institute in this regard shall be final and binding on all concerned.

5.3 Maximum and Minimum Duration of the Program

- a) **Normal Duration:** The normal duration of fulltime academic Program is the same as that followed by the University, i.e., four years for B.E., one year for Diploma and six months for Certificate Programs.
- b) **Prescribed Credits:** As a flexible credit system is followed for coursework, it is to be noted that the Program duration in the case of UG shall also be dictated by the period in which a student earns the prescribed credits for the award of Degree. Hence, it is possible for an outstanding student to earn the required credits in a shorter time than that ordinarily prescribed for the relevant Program in (a) above.
- c) **Add-on courses:** In such cases, the College provides opportunity for such a student to register for Add-On courses being conducted at the College or to take up suitable internship until completion of the prescribed Program duration.



- d) Maximum Duration:** The maximum period which a student can take to complete a fulltime academic Program shall be the same as that prescribed by the University from time to time; e.g., double the normal duration of the Program, i.e., eight years for B.E., two years for Diploma and one year for Certificate.
- e)** Besides, the maximum period for a Program is also be dictated by the fact that a student has to demonstrate the specified minimum academic performance by registering for the prescribed minimum number of credits in every semester for continuing with the Program. And, this period can be equal to or smaller than the maximum period indicated as in the above section (d).
- f)** Total duration of the of B. E. (Regular) Program is four academic years
- g)** Each academic year of study is divided into two semesters.
- h)** Minimum number of instruction days in each semester is 90.
- i)** There shall be mandatory student induction program for fresher's, with a three-week duration before the commencement of first semester. Physical activity, Creative Arts, Universal Human Values, Literary, Proficiency Modules, Lectures by Eminent People, Visits to local Areas, Familiarization to Dept. /Branch & Innovations etc., are included as per the guidelines issued by AICTE.
- j)** All undergraduate students shall register for NSS activities. A student will be required to participate in an activity for two hours in a week during third and fourth semesters. Grade shall be awarded as Satisfactory or Unsatisfactory in the mark sheet based on participation, attendance, performance, and behaviour. If a student gets an unsatisfactory grade, he/she shall repeat the above activity in the subsequent years, to complete the degree requirements
- k)** Lateral Entry students of all branches shall undergo mandatory bridge courses for zero credits in Mathematics
- l)** Increased flexibility for students through an increase in the elective component, with 03 Professional Elective courses and 03 Open Elective courses and MOOCS.



- m) Professional Elective Courses, include the elective courses relevant to the chosen specialization/ branch. Proper choice of professional elective courses can lead to students specializing in an emerging area within the chosen field of study.
- n) Student can opt for any open elective other than open elective offered by his/her own department. While choosing the electives, students shall ensure that they do not opt for the courses with syllabus contents similar to that of their departmental core/elective courses.
- o) A pool of interdisciplinary/job-oriented/domain skill courses which are relevant to the industry are integrated into the curriculum of all disciplines. These courses are called Ability Enhancement Courses. There shall be 07 skill-oriented ability enhancement courses offered during I to VII semesters.
- p) Students shall undergo mandatory summer internships, for a minimum of three weeks duration at the end of first year and four weeks duration at the end of second year of the Program. There shall also be mandatory full internship at the end of third year of the Program. The duration for this internship is 24 weeks.
- q) Undergraduate degree either with Honors' or a Minor is introduced for the students having good academic record
- r) As per the UGC guidelines, the Institution shall offer credit mobility for MOOCs and give the equivalent credit weightage to the students for the credits earned through online learning platforms.
- s) Each college shall assign a faculty advisor/mentor after admission to a group of students from same department to provide guidance in courses registration/career growth/ placements/opportunities for higher studies/GATE/other competitive exams etc.
- t) The institution has prepared itself during Covid-19 pandemic to conduct all academic activities online whenever required. Some of the courses are taught in blended mode.



6. CURRICULUM, COURSES AND COURSE REGISTRATION

6.1 Curriculum

The curriculum comprises courses of study in accordance with the prescribed syllabi as given in the scheme of teaching and examination for each Program.

6.1.1 General Issues

(a) Curriculum Framework is important in setting the right direction for a Degree/ Diploma/Certificate Program by the College, as it takes into account the type and quantum of knowledge necessary to be acquired by a student to qualify for a particular award in his/her chosen branch or specialization area.

(b) Besides, this also helps in assigning the credits for each course, sequencing the courses semester-wise and finally arriving at the total number of courses to be studied and the total number of credits to be earned by a student to fulfill the requirements for the conferment. The College takes into account the AICTE Model Curricula notified from time to time and follow them so as to be abreast of the national trends in this connection.

(c) At the time of graduation, the minimum expected skills in every graduating engineer, for global acceptance is defined by NBA, through the Program Outcomes (POs). The POs are primarily developed through the curriculum, the Course Outcomes (COs) of various courses of the curriculum. Hence, the expected skills to be developed through the POs forms an important factor during curriculum design.

(d) Another guiding factor for curriculum design is to ensure it meets global standards, which are defined through the expectations and the competencies that need to be addressed for every engineering discipline through the Program Specific Criteria (PSC) recommendations by Accreditation Board for Engineering and Technology (ABET). This is addressed through the Core Courses of the curriculum as every graduating engineer possess the expected core competency.

6.2. Curricular Components

6.2.1. Recommended Courses: The curriculum of B.E degree includes courses in the following categories:



- Basic science courses (BSC) (Mathematics, Physics, Chemistry): These are mandatory for all disciplines.
- Engineering science courses (ESC): Materials, Workshop, Drawing, Computers and Basics of Electrical/ Electronics/ Civil/ Mechanical/ Computer Engineering, etc. These are mandatory for all disciplines.
- Humanities and social sciences, including the Management courses (HSMC): These are mandatory for all disciplines.
- Professional core courses (PCC) relevant to the branch: These are the professional Core Courses, relevant to the chosen specialization/ branch. The core courses shall be compulsorily studied by students and it is mandatory to complete them to fulfill the requirements of a Program.
- Professional Elective courses (PEC): These are professional Electives, relevant to the chosen specialization/branch and can be chosen from the pool of courses. It shall be supportive to the discipline providing extended scope/enabling exposure to some other discipline /domain and nurturing student proficiency skills
- Industrial Elective courses (IEC): These courses are offered to the students based on current trend and these courses are handled by the industry experts/faculty
- Ability Enhancement Courses (AEC): These courses are designed to help students to enhance their skills in communication, language, and personality development etc. They also promote a deeper understanding of courses like social sciences, ethics, culture, human behavior human rights, and the law. Ability Enhancement Courses are based upon the content that leads to Knowledge enhancement.
- Universal Human Value Courses (UHV): The courses which teach: a holistic perspective based on self-exploration about themselves (human being), family, society, and nature. Understanding (or developing clarity) of the harmony in the human being, family, society, and nature. These are mandatory for all disciplines.
- Open Elective Courses (OEC), from other technical and/or emerging subject areas: These are the Elective Courses from other technical areas and/ or from emerging fields. Students of other



departments shall opt for these courses to fulfilling of eligibility and prerequisite mentioned in the syllabus.

- MOOCS/ online courses
- Project work: Mini-project and Project work carried out at the parent Institution or any university / Government recognized organization without affecting the regular class work.,
- Seminar: Each student has to present the seminar on specific topic chosen from the relevant field /list provided by the department under the supervision of a faculty coordinator.
- Internship (INT): The internship (a form of experimental learning) program not only helps fresh pass-outs in gaining professional know-how but also benefits corporate sectors. The internship also enhances the employability skills of the student passing out from Technical Institutions
- Institutional core courses like Communication skills, Soft Skill, Aptitude (Recruitment Process Training), Constitution of India, Environmental studies, Intellectual Property Rights etc.
- Non-Credit Mandatory Courses (NCMC): These Courses are mandatory, without the benefit of a grade or credit, passing in each mandatory Course is required to qualify for the award of degree.

6.2.2 Induction Program: The Three Week Induction Program is included for the first-year B.E. students at the beginning of their 1st Semester, as per the requirements of AICTE.

6.3. Course Registration

In order to maintain a proper academic record at the Institution, every student shall register for courses (core or elective) to earn credits for meeting the requirements of a Degree/ Diploma/Certificate Program under the supervision of a Faculty Advisor (also called Mentor, Counselor, class teacher, etc.,) at the beginning of each semester. Such courses together with their grades and the credits earned shall be



included in the Grade Card issued by the College at the end of each semester, like odd, even, Supplementary and it forms the basis for determining the student's academic performance in that semester.

The minimum number of students registered to any professional Elective Course/Open Elective Course /Ability Enhancement course (from 3rd semester onward) offered by the Departments shall not be less than ten. In such cases, if the number of registrants for the elective course is less than 10, the department must seek permission from the Principal within 15 days from the date of commencement of the semester as per the academic calendar, if that professional Elective Course/Open Elective Course/Ability Enhancement course is to be offered in the department.

A student shall exercise the option in respect of a higher semester professional Elective Course/Open Elective Course /Ability Enhancement course and register for the same at the beginning of the semester. However, the student may be permitted to opt for a change of Elective Course/s preferably within 07 days from the date of commencement of the semester as per the academic calendar of the institute subject to availability.



7. ATTENDANCE REQUIREMENT

All students must attend every lecture, tutorial and practical classes. To account for late registration, sickness or other such contingencies, the attendance requirement will be a minimum of 85 % of the classes actually held.

- a)** Each semester is considered as a unit for attendance requirements and the candidate has to put in a minimum of 85 % attendance in each subject. However, a candidate who has secured attendance between 75% to 84% in the current semester due to medical reasons or due to participation in College/University/State/National/International level sports events or Technological exhibitions or seminars with prior permission from the Principal shall be given exemption from the prescribed attendance requirements and he / she shall be permitted to appear for the current semester examination.
- b)** The basis of calculation of the attendance shall be the period prescribed by the college in the calendar of events. For the first semester students, the same is reckoned from the date of admission to the course as per the CET allotment.
- c)** Attendance record will be maintained based upon roll calls (or any equivalent operation) in every scheduled lecture, tutorial and practical class. For the purpose of attendance calculation, every scheduled practical class will count as one unit irrespective of the number of contact hours.
- d)** The students and/or parents shall be informed about their attendance position periodically by the college so that they can make up the shortage, if any. The heads of the departments will submit the list of students who have fallen short of attendance at the end of each semester to the Principal/CoE for further action in this regard.
- e)** A candidate having shortage of attendance in one or more subjects shall have to repeat the subject(s) by taking re-registration to the same, during the relevant semester of a subsequent academic year.
- f)** A student must inform the concerned head of the department / Dean, immediately of any instances of continuous absence from classes. A student who is absent due to illness or any other emergency, up to a maximum of two weeks, should approach the concerned faculty through Head of the department, for



make-up CIE components and laboratory work. Similarly, a student who is absent for a test due to illness shall approach the concerned faculty through Head of the department for a make-up test immediately after returning to the class. The request should be supported with a medical certificate from a medical officer.

g) If a student is continuously absent for more than four weeks duration without notifying the Head / Dean, he/she will not be permitted to take the examinations in that semester.

8. INTERNSHIP

The internship is an extended period of work experience undertaken by Institute students looking to supplement their degree with professional development. The students are allowed to prepare themselves for the workplace and develop practical skills. The Internship shall be completed during the period specified in the Scheme of Teaching and Examinations. There will be three internships:

8.1 Inter/Intra Institutional Internship: (In the case of the students admitted to 1st-year B.E./ B.Tech. program) All the students admitted to engineering programs shall have to undergo a mandatory summer internship of 03 weeks during the intervening semester period of the II and III semesters. The internship shall include Inter / Intra Institutional activities. CIE shall be carried out during the Internship period/III semester and prescribed marks shall be included in the III semester grade cards. Inter/Intra Institutional Internship: (In case of students admitted under Lateral Entry): All the students admitted to engineering programs under the lateral entry category shall have to undergo a mandatory internship of 03 weeks during the intervening semester period of the III and IV semesters. The internship shall include Inter / Intra Institutional activities. CIE shall be carried out during the Internship period/IV semester and prescribed marks shall be included in the III semester grade cards. Inter /Intra Institutional Internship will have only CIE and no SEE.

8.2 Innovation/Societal/Entrepreneurship-based Internship: During the intervening period of IV and V semester the Internship of 04 weeks period shall be carried out in industries /Govt. organization/



NGO/MSME. Focus may be given to Rural Internship/Innovative activities and Entrepreneurship (Social/Industrial). CIE shall be carried out during the Internship period/V semester and prescribed marks shall be included in the VI semester grade cards. Innovation/Societal/Entrepreneurship based, will have only CIE and no SEE.

8.3 Research Internship/Industry Internship of 24 weeks duration: At the beginning of the IV academic year, students can opt for VII semester course work or VII semester Internship depending on the opportunities available for enrolling to either Research Internship or Industry Internship. With reference to this, both VII and VIII semesters shall be in progress simultaneously. Research Internship / Industry Internship shall be carried out at Industry / Government organizations, non-governmental organizations (NGOs)/ Micro, Small & Medium Enterprises (MSME) /Research and development organizations/Organizations of National or international repute/Institution Research Centers / Innovation and Incubation Centres/Start-ups /entrepreneur cells. The institution shall encourage students to take up (i) interdisciplinary Research Internship or Industry internship and (ii) rural internship, a workbased activity carried out to learn practical experiences in rural areas, for the upliftment of living standards. In case students want to undergo an internship at his/her family business, he/she shall be permitted to provide; a declaration by a parent that is submitted directly to the Principal of the Institution. With the consent of the internal guide and Principal of the Institution, students shall be allowed to carry out the internship at their hometown (within or outside the state or abroad), provided favourable facilities are available for the internship and the student remains regularly in contact with the internal guide. Institute shall not bear any cost involved in carrying out the internship by students. However, students can receive any financial assistance extended by the organization. Viva-Voce examination shall be conducted at the end of the internship period. Research Internship /Industry Internship shall be considered as head of passing and shall be considered for the award of the degree. Those who do not complete the internship shall be declared fail and shall have to complete it during subsequent examinations after stratifying the internship requirements during subsequent semesters.



Responsibilities of Department and Guides:

- a) The Department shall nominate department coordinator /staff member/s to facilitate, guide, and supervise students under internship.
- b) The students shall report the progress of the internship to the Guide at regular intervals and seek his/her advice. The guide shall maintain the progress record/diary of the candidates undergoing internship.
- c) After the completion of the Internship, students shall submit a report with a completion certificate to the Head of the Department with the approval of internal Guides.
- d) There shall be 50 marks for CIE for Inter/Intra Institutional Internship and Innovation/Societal /Entrepreneurship based Internship. For Research /industry internship 50 marks for CIE and 50 marks for SEE. The minimum requirement of CIE and SEE marks shall be 40% of the maximum marks and 35% of the maximum marks respectively. In total, the student has to secure 40% of the course maximum marks i.e., the sum of the CIE and SEE marks prescribed for the course.
- e) The internal guide and one senior faculty shall be the internal examiners for CIE Inter/Intra Institutional Internship and Innovation/Societal /Entrepreneurship based Internship.
- f) For Research /Industry Internship, External guide for the Internship shall be the external examiner for SEE. Examination for internship shall be conducted at the college and the date shall be fixed in consultation with the external Guide. The Examiners shall jointly award the SEE marks.
- g) In case, the external guide expresses his/her inability to conduct the Examination, the Principal /examination Chief Superintendent of the Institute shall appoint a senior faculty of the Department to conduct the Examination along with the internal guide.



9. TECHNICAL SEMINAR

Technical Seminar is one of the heads of passing.

- a) Each student has to present the seminar on a specific topic chosen from the relevant field /list provided by the department under the supervision of a faculty coordinator.
- b) The Head of the Department/designated coordinator for technical seminar shall make arrangements for the conduct of seminars through a committee of faculty members of the Department. The committee constituted for the purpose, shall award the CIE marks for the seminar. The committee shall consist of three senior faculty members of the Department and the senior-most among them is to act as the Chairperson. There is no SEE for the seminar.

10. MINI-PROJECT AND PROJECT WORK

Mini Project: A Mini Project is a laboratory-oriented course that will provide a platform to students to enhance their practical knowledge and skills by the development of small systems/applications based on the ability/abilities of the student/s and recommendations of the mentor, a single disciplinary or a multidisciplinary mini-project can be assigned to an individual student or a group having not more than four students. There is only CIE and no SEE for mini-project.

Project Work: Based on the ability/abilities of the student/s and recommendations of the mentor, a single disciplinary or a multidisciplinary Major-project can be assigned to a group having not more than 4 students. The main project work needs to be taken up within the institute/ research laboratory/ industry. It is desirable, that the outcome of the project work may be published /patented.

11. CONTINUOUS INTERNAL EVALUATION (CIE)

At the beginning of the semester, the course instructor or the faculty who is teaching the course shall have to announce the methods used for CIE. Suggested components of CIE are as follows:

For theory subjects, during the semester, there shall be three internal examinations at equal intervals. Each CIE examination shall be evaluated for 40 marks and 10 marks for assignment/quiz/presentation/



case study etc. The three CIE examination marks are averaged and added to the marks obtained for Assignment/quiz/presentation/case study etc.

Note:

The assignment shall contain numerical problems, software development, theory, Design, Analysis, Simulations, Algorithms, and Drawing etc. Virtual Labs shall also be considered to develop curiosity and help students learn concepts through remote experimentation. It should be continuous assessment throughout the semester. There shall be at least four assignments in a semester and the average marks shall be considered.

- a) If the student is absent for any CIE examination, a chance may be given and CIE retest conducted
- b) After every CIE examination, identify poor performing students and give additional guidance to these students and conduct a test. Consider the best of two for the conducted test.
- c) First CIE shall be conducted for 33% of syllabus. The second CIE shall be conducted for next 33% of syllabus. Third CIE will be conducted for the remaining syllabus.
- d) Final CIE marks are calculated by taking average of THREE CIE for 40 marks and the 10 marks for Assignment/etc.

For Example:

Marks obtained in First CIE: 25

Marks obtained in second CIE: 20

Marks obtained in third CIE: 15

Marks obtained in Assignments etc: 08

Final CIE Marks: $(25+20+15)/3+08 = 28$

12. SEMESTER END EXAMINATION (SEE)

- i. The questions are set module wise
- ii. There will be two full questions in each module and totally there will be 10 questions in FIVE modules.
- iii. Each question may have a maximum of 4 sub-questions



iv. The question paper will be for 100 marks and after evaluation the marks are scaled down to 50

- a) For practical courses, there shall be a continuous evaluation during the semester for 50 marks and end examination shall be for 50 marks. Day-to-day work in the laboratory shall be evaluated for 50 marks by the concerned laboratory teacher based on the regularity/record/viva/conduction of the practical (as per the rubrics). The end examination shall be conducted by the examiners appointed by chairman BoE. Generally one of the examiner will be the concerned laboratory teacher and another being subject expert from the same department/external examiner.
- b) For the subject having design and/or drawing, such as Engineering Drawing, the distribution of marks shall be 50 for CIE and 50 for end examination.
- c) The laboratory records, CIE test papers and SEE records shall be preserved in the respective department/institutions as per the University norms and shall be produced to the Committees of the University as and when the same are asked for.
- d) Project work Evaluation: The evaluation of CIE of the project work shall be based on the progress of the student in the work assigned by the project supervisor periodically evaluated by him/her together with a Project Evaluation Committee (PEC) constituted for this purpose by the department. PEC comprises two faculties of the department/Program-wise and one faculty supervisor/Project guide (as assigned by the department for every student/student group).
- e) Seminar presentation, project report (dissertation) and final oral examination conducted by a common Project Evaluation Committee at the College level shall form the SEE of the project work. The evaluation of SEE of the project work shall be jointly conducted by the Project Guide/Internal examiner and an external examiner.

12.1 Maximum and Minimum CIE and SEE Marks:

Maximum and Minimum CIE Marks:

The maximum CIE marks shall be 50. To appear for the SEE, the minimum CIE marks to be secured in all the courses shall be 40% of the maximum marks. Inter/Intra Institutional Internship and Innovation /Societal /Entrepreneurship based Internship, Technical Seminar, Mini-Project Works will have only



CIE component, maximum CIE marks shall be 50. Minimum CIE marks to be secured shall be 40% of the maximum marks, to qualify in these courses. For Research Internship/ Industry Internship / Major Project the maximum CIE marks shall be 50. To appear the SEE, the minimum CIE marks to be secured shall be 40% of the maximum marks.

Maximum and Minimum SEE Marks:

For all the courses including Research /Industry Internship, Major Project Work mentioned in the scheme of teaching and examination maximum SEE marks is 50, and minimum SEE marks to secure shall be 35% of the maximum marks. No SEE component for Inter/Intra Institutional Internship and Innovation/Societal /Entrepreneurship based Internship, Technical Seminar and, Mini Project.

Any corrections or overwriting of CIE marks on the blue book/drawing sheet laboratory record etc., where CIE marks are awarded, shall bear the signature(s) of concerned Teacher(s) and the Head of the Department.

CIE marks shall reach the office of controller of examinations (CoE) before the commencement of examinations as per the calendar of events specified from time to time. After submission of CIE marks to the CoE, any request under any circumstances for change of CIE marks shall not be considered.

(i) Students satisfying the attendance requirement but failing to secure the minimum percentage of CIE marks, in any course/s, shall not be eligible for the SEE, and they shall be considered as fail in that Course /those Courses and marked as NE in the grade cards against this course/s. However, they can appear for examinations conducted for other Courses of the same semester and backlog course/s if any.

(ii) Students who have satisfied the attendance requirement but not the CIE requirements can be permitted to register afresh and appear for SEE after satisfying the CIE requirements in the same Course(s) when offered during the next immediate semester/s or later.

(iii) Each appearance to SEE or absence after completing CIE and attendance requirements to complete a course shall be treated as an attempt.

(iv) The student shall be permitted to register for total courses not exceeding 28 credits. These 28 credits include the courses of the regular semester and backlogs. The registration of these additional



credits includes the courses having a shortage of attendance and the courses whose CIE requirements are not fulfilled. A student has to pay the prescribed fee as notified by the Institute from time to time.

12.2 Passing Standard

For all Courses of the Program, the maximum SEE marks shall be 50, the minimum SEE marks to be secured shall be 35 % of the maximum marks i.e., 18 marks.

If a Student who satisfy the conditions above, and obtain any grade from O to P in a course shall be considered to have passed that course.

i) A student shall be declared fail if he/she

- Fails to satisfy the above conditions
- Absents himself/herself to the SEE examination.
- Is held guilty of examination malpractice and for any other reasons and declared the performance of any course/s as null and void by the competent authority.
- The course/s in which student/s fail to satisfy attendance and CIE requirement (NE courses) are also considered as F only.
- If a student secures an F grade in any of the Courses, he/she shall reappear for that Course(s) during the subsequent SEE.
- The CIE marks awarded to the student at the first attempt in the concerned Course(s) shall be carried forward.
- Revised CIE marks are considered only in cases NE (not eligible to appear for SEE due to non-comply of attendance and CIE) cases.

The sum total of CIE and SEE marks must be 40% of the maximum marks prescribed for a course as per the scheme of teaching and examination.



13. MULTIPLE ENTRY AND EXIT OPTION

13.1 Entry 1: (at 1st semester) A program of study leading to entry into the first year of the Bachelor's degree is open to those who have met the entrance requirements, including specified levels of attainment at the secondary level of education specified in the program admission regulations.

Exit 1: The exit option is given to the student at the end of year 1 (after the 2nd semester). The student has to complete all academic requirements of 1st year of the undergraduate program and earned requisite credits of 1st and 2nd semester and recommendation of the counseling team of the Institute.

13.2 Entry 2: (at 3rd semester) A program of study leading to the second year of the Bachelor's degree is open to those who have met the entrance requirements, including specified levels of attainment, in the program admission regulations. Admission to a program of study is based on the evaluation of documentary evidence (including the academic record) of the applicant's ability to undertake and complete a Bachelor's degree program. This option is open to those who have left after completion of the 1st year of the program and want to join back for the continuation of their study subject to the condition of a maximum duration of 8 years from the date of 1st admission. Student opting for multiple entries at 3rd-semester level has to undergo a mandatory Summer Internship-I of 03 weeks during the intervening period of semester III and IV. CIE shall be conducted in the 3rd semester and prescribed credits earned for the internship shall be entered into the grade card of the IV semester.

Exit 2: The exit option is given to the student at the end of year 2 (after the 4th semester). The student has to complete all academic requirements to complete the two years of the undergraduate program and earned requisite credits of 1st, 2nd, 3rd and 4th semesters and recommendation of the counseling team of the Institute.

13.3 Entry 3: This option is open to those who have left after completion of the 2nd year of the program and want to join back for the continuation of their study subject to the condition of a maximum duration of 8/6 years from the date of 1st admission. A program of study leading to the Bachelor's degree is open to those who have met the entrance requirements, including specified levels of attainment. Admission to a program of study is based on the evaluation of documentary evidence (including the academic record) of the applicant's ability to undertake and complete a Bachelor's degree program.



Students opting for multiple entries at the 5th-semester level have to undergo mandatory Summer Internship-II of 04 weeks during the intervening period of semesters V and VI. CIE shall be conducted in the 5th semester and prescribed credits earned for the internship shall be entered into the grade card of VI semesters.

Exit 3: (after 6th semester) on successful completion of three years, the relevant degree shall be awarded. The student has to complete all academic requirements to complete the three years of the undergraduate program and earned requisite credits of 1st to 6th semester and recommendation of the counseling team of the Institute.

13.4 Counseling Team: The students who choose to drop out (exit) undergo counseling to understand why they are making such decisions. The exit option is given to students only after the recommendation of the counseling team constituted by the Principal of the Institute.

14. GRADING

14.1 General

a) In recent years, the grading system has replaced the evaluation of students' performance in a Course based on absolute marks, because of its many advantages. Therefore, College is following this practice.

b) **Letter Grades:** A letter grade is basically a qualitative measure (an alphabet/letter) giving the performance of a student, such as, Outstanding (O), Excellent (A+), Very Good (A), Good (B+), Above Average (B), Average (C), Pass (P) and Fail (F), based on the raw score (marks, as in conventional practice) obtained by the student. This is usually arrived at after the student's performance in a course, which includes both CIE and SEE, is assessed and raw score (marks) for the total are awarded to begin with, followed by grouping of all the students at a Course under different grading levels, as above.

NE: If a student fails to satisfy attendance and/or CIE requirement for course/s then such course/s shall be marked as not eligible (NE) i.e not eligible to appear for SEE in that course/s.

Absolute Grading: The College adopts the absolute grading system.

14.2 Grade Points



a) Depending on the letter grades assigned, a student earns certain grade points. As the grading system can have different scales for grade points (like 5, 8, 10.) with more number of points in the scale being desirable for providing higher resolution in the assessment. The College shall follow the 10-point grading system, as given in Table 6 for the absolute grading system.

Table 6: Grade Points Scales for Absolute Grading

Level	Out Standing	Excellent	Very Good	Good	Above Average	Average	Pass	Fail
Grade	O	A+	A	B+	B	C	P	F
Grade Points	10	9	8	7	6	5	4	0
Score (Marks) Range %	90-100	80-89	70-79	60 - 69	55 - 59	50-54	40- 49	0- 39

a) The grade points given in Table 6 helps in the evaluation of credit points earned by the student in a course as the credit points are equal to the number of credits assigned to the course multiplied by the grade points awarded to the student in that course. This shall be used in arriving at the credit index of the student for that semester, as it is the sum total of all the credit points earned by the student for all the courses registered in that semester.

b) **Earning of Credits:** A student shall be considered to have completed a Course successfully and earned credits if he/she secures an acceptable letter grade in the range O to P. Letter grade F in any Course implies failure of the student in that Course and no credit shall be earned.

c) **Transitional Grades:** The transitional grades, such as, 'I', 'W' and 'X' shall be awarded to a student in the following cases (refer 14.2). These grades need to be converted into one or the other of the letter grades (O-F) after the student completes his/her Course requirements, including the examinations.



14.3 Description of few Grades

P Grade: ‘P’ grade stands for poor performance; i.e. it is the minimum passing grade in any course.

F Grades: ‘F’ grade denotes fail in a course. A student has to reappear for the courses as backlog paper in which he/she obtains ‘F’ grade, until a pass grade (‘P’ and above) is obtained. For the other (elective) courses in which F grade has been obtained, while repeating the student may take the same course or any other course from the same category.

PP and NP Grades: ‘PP’ (for passed) and ‘NP’ (for not passed) grades are awarded to candidates for the mandatory courses which are of a non-credit (NC) type. The results of all the mandatory courses are reflected in the grade card. For audit courses the non-credit pass grade PP is awarded if a student’s attendance is above 75% in the class and he/she satisfies the criterion specified by the concerned course teacher. However, if these requirements are not fulfilled, the non-credit fail grade (NP) is awarded.

‘X’ Grade: Awarded to a student having attendance $\geq 85\%$ and CIE marks ($\geq 90\%$) in a Course, but SEE performance observed to be poor, which could result in an overall F Grade in the Course (No F grade awarded in this case but student’s performance record maintained separately).

‘I’ Grade: Awarded to a student having satisfactory attendance at classes and meeting the passing standard at CIE in a Course, but remained absent from SEE for valid and convincing reasons acceptable to the College, like:

- Illness or accident, which disabled him/her from attending SEE;
- A calamity in the family at the time of SEE, which required the Student to be away from the College.
- Any other Verifiable exigency.

‘W’ Grade: Awarded to a student having satisfactory attendance at classes, but withdrawing from that Course before the prescribed date in a semester under faculty advice;



‘N’ Grade: ‘N’ grade is awarded for incomplete work in Industrial Training, Mini Project, Major Project - Phase 1 and Phase 2 and NSS activities, against an application submitted by the student. However, on completion of such a work, ‘N’ grade can be converted to a regular grade within the first week of the next semester. Otherwise, the student will be awarded ‘N’ grade on a permanent basis and it will appear in his/her grade card. Further, the student will be required to register for the same in the next semester.

‘NE’ Grade: Awarded to a student for which the student does not possess satisfactory attendance and CIE score, shall be marked as NE.

14.4 Make Up examination:

The Make Up Examination facility shall be available to students who may have missed to attend the SEE of one or more Courses in a semester for valid reasons and given the ‘I’ grade. Students having the ‘X’ grade shall also be eligible to take advantage of this facility. The Make Up Examination shall be held as per dates notified in the Academic Calendar. The standard of the Make Up Examination shall be the same as that of regular SEE for the Courses.

14.5 Grade Card

Each student shall be issued a *Grade Card* (or transcript) at the end of each semester. While this will have a list of all the Courses registered by a student in the semester together with their *credits*, the *letter grades* with *grade points awarded* in each case and those with *grades ‘I’, ‘W’ and ‘X’*, only those Courses registered for *credit* and having *grade points* shall be included in the computation of the student’s performance, like *SGPA* and *CGPA*. And, the Courses taken for *audit* will not form part of this computation. The results of *mandatory courses*, which are of the *non-credit* type, shall also be reflected in the *Grade Card* as *PP (for Passed)* or *NP (for Not Passed)*. It may be noted that each UG student shall have to obtain the *grade PP* in each *mandatory course* to qualify for the Degree award by the University.



14.6 GRADE POINT AVERAGES

- i. Depending on the grade assigned, a student earns certain grade points as given in Table. 10. The grade points are used in the calculation of credit points earned by the students in a subject. The credit points earned in a subject/course are equal to the number of credits assigned to the subject/course multiplied by the grade points awarded to the student in that subject/ course. This is further used to calculate the two important Grade point Averages (SGPA and CGPA) of each student for a given semester that are used as criteria for the declaration of academic performance of a student for promotion to higher classes as well as award of degree.
- ii. If a candidate has withdrawn a course in the first attempt during a semester, the SGPA is computed for the first attempt assigning a 'F' grade (Grade points 00) to the withdrawn courses.
- iii. **Semester Grade Point Average (SGPA):** SGPA is an indication of the performance of the student in the current semester. SGPA for a student for any given semester is equal to the total credit points earned by the students in the given semester divided by the total number of credits registered in that semester (refer the formula).

$$SGPA = \frac{\sum_{\text{for all the courses including P and F grades in that semester}} (\text{Course Credits} \times \text{Grade Points})}{\sum_{\text{for all the courses including F grades in that semester}} (\text{Course Credits})}$$

- iv. **Cumulative Grade Point Average (CGPA):** CGPA is an indication of the cumulative performance of the student from first semester upto the current semester. CGPA for a student at the end of a given semester is calculated by the ratio of sum of total credit points of all the semesters divided by the total number of credits earned in all the semesters.

$$CGPA = \frac{\sum_{\text{for all the courses excluding F grades until that semester}} (\text{Course Credits} \times \text{Grade Points})}{\sum_{\text{for all the courses excluding F grades until that semester}} (\text{Course Credits})}$$



v. **Illustrative Example:** An illustrative example given in Table 8 indicates the use of the two equations in calculating *SGPA* and *CGPA*, Both of them shall be normally calculated up to the second decimal position, so that the *CGPA*, in particular, can be made use of in rank ordering the students' performance in a College. If two students get the same *CGPA*, the tie may be resolved by considering the number of times a student has obtained higher *SGPA*. But, if it is not resolved even at this stage, the number of times a student has obtained higher grades like O, A+, A maybe taken into account in rank ordering of the students in the class.

Table 7a: An Example 1

Course Name	Course Credits	Marks (CIE + SEE)	Grade Obtained	Grade Points	Credit Points (Course credits X Grade	Earned Credits
Subject -S1	04	45	P	04	$4 \times 4 = 16$	04
Subject S2	03	26	F	00	$3 \times 0 = 00$	00
Subject S3	02	87	A+	09	$2 \times 9 = 18$	02
Subject S4	04	35	F	00	$4 \times 0 = 00$	00
Subject S5	04	70	A	08	$4 \times 8 = 32$	04
Subject S6	04	82	A+	09	$4 \times 9 = 36$	04
LAB L1	1.5	61	B+	07	$1.5 \times 7 = 10.5$	1.5
LAB L2	1.5	72	A	08	$1.5 \times 8 = 12$	1.5
Total	24				124.5	17

Table 7b: An Example 2

Course Name	Course Credits	Marks (CIE + SEE)	Grade Obtained	Grade Points	Credit Points (Course credits X Grade Points)	Earned Credits
Subject S1	04	50	C	05	$4 \times 5 = 20$	04
Subject S2	03	60	B+	07	$3 \times 7 = 21$	03
Subject S3	02	82	A+	09	$2 \times 9 = 18$	02
Subject S4	04	45	P	04	$4 \times 4 = 16$	00
Subject S5	04	25	F	00	$4 \times 0 = 00$	04
Subject S6	04	85	A+	09	$4 \times 9 = 36$	04
LAB L1	1.5	71	A	08	$1.5 \times 8 = 12$	1.5
LAB L2	1.5	72	A	08	$1.5 \times 8 = 12$	1.5
Total	24				135	20



In the above table for each student the following two values are determined

i. Credit Points

ii. Earned Credits

- The credit points for a subject are equal to the number of credits assigned to the subject multiplied by the grade points awarded to the student in that subject.
- Earned Credits are equal to the course credits if the student has obtained a grade other than 'F' grade. For 'F' grade the earned credits are equal to zero.

The calculation of credit points and earned credits is used to determine SGPA and CGPA.

TOTAL EARNED CREDITS IN A SEMESTER = 17/20

Table 8: SGPA/CGPA Calculations: An Illustrative Example

Semester (Odd: I, Even: II)	Course No	Credits	Grade	Grade Points	Credits Points	SGPA/CGPA
I	XX101	5:0:0	A	8	40	SGPA = 117/20
I	XX102	3:2:0	W	-	--	
I	XX103	3:0:0	A+	9	27	
I	XX104	0:1:1	F	0	00	
I	XX105	4:1:0	B	6	30	
I	XX106	5:0:0	P	4	20	
TOTAL		20(18*)	Total		117	
II	XX107	3:1:1	B+	7	35	SGPA = 157/25 CGPA = 274/41
II	XX108	4:0:0	A	8	32	
II	XX109	3:0:0	B	6	18	
II	XX110	4:1:0	P	4	20	
II	XX111	2:1:1	A+	9	36	
II	XX112	2:0:0	F	0	00	
Total		25 (23*)	Total		157	
Supplementary	XX102	3:2:0	B	6	30	SGPA = 56/9 =
Supplementary	XX104	0:1:1	B+	7	14	CGPA = 330/50
Supplementary	XX112	2:0:0	D	6	12	
Total		9	Total		56	
* Total Number of credits excluding with 'F' & 'W' grades; this is particularly important to track of the number of credits earned by a student up to any semester;						



14.7 Class Equivalence

Class Designation: Class designation shall be as per the VTU Regulations and notifications for respective Programs notified from time to time.

Conversion of CGPA into percentage of Marks and Class Equivalence: There is no formula for the conversion of CGPA into percentage of Marks. However, sometimes, it is necessary to provide equivalence CGPA with the percentage of marks for employment/higher studies etc. The following formula may be referred for the conversion of CGPA on 10-point scale into the percentage marks:

$$\text{Percentage} = \text{CGPA} \times 10$$

- Class Equivalence: Subsequent to the conversion of final CGPA, after successful completion of the Program, into the percentage marks (M), a graduating student is reckoned to have passed in
 - First Class with Distinction (FCD) if $M \geq 70$,
 - First Class (FC) if $60 \leq M < 70$,
 - Second Class (SC) if $50 \leq M < 60$ and
 - Pass Class if $40 \leq M < 50$



15. VERTICAL PROGRESSION

All the below clauses are subject to a maximum duration of eight (for Regular Students) / six years (for Lateral Entry Students) as applicable.

(i) In case of students admitted to the first year: (a) Students have to fulfill the attendance and CIE requirement to appear for SEE of course/s of 1st year (b) Students having not more than four F grades in the 1st and 2nd semesters of the first year of the program shall be eligible to move to the 3rd semester (2nd year) of the program. These courses include courses marked as NE (c) The students who fail to satisfy CIE and attendance requirement has to repeat the courses whenever offered next and become eligible for the 2nd year.

(ii) Obtaining CIE: From the (3rd semester) second year onwards the student who obtains the required attendance for the course, but not the required CIE marks is allowed to move forward to the next semester. However, the student has to mandatorily obtain the required CIE in the subsequent semester. Obtaining minimum CIE marks for the course is mandatory. It may also be noted that the student shall not be permitted to appear for SEE in such courses until he/she obtains the required CIE.

(iii) Carryover of backlog courses: From 3rd semester onwards the student/s who obtains required attendance, CIE, and appears for university examinations but fails (F Grade) to pass a course/s is allowed to move forward to the next semester (odd /even) irrespective of a number of F grades. However, for the award of degree, the student has to pass in all courses as per applicable scheme and regulations and earn the prescribed credits. This is subject to a permitted maximum duration. It may also be noted that the student will be given admission to the IV year (7thsemester/8th semester) provided he/she passes all courses of 1st and 2nd semesters.

(iv) From the second year onwards there shall be no restriction from promotion from an even to next odd semester (or odd to next even semester) even if the student has not satisfied the attendance requirement in one or more courses (including bridge courses for lateral entry students) shall not be eligible to appear for the Semester End Examination (SEE) of that course(s). The student shall be required to repeat that course whenever offered next.



(v) Permitted Maximum credits for registration: The student shall be permitted to register for total courses not exceeding 28 credits. These 28 credits include the courses of the regular semester and backlogs. The registration of these additional credits includes the courses having a shortage of attendance and the courses whose CIE requirements are not fulfilled. A student has to pay the prescribed fee as notified by the Institute from time to time.

(vi) Successive Failures: a) If a student fails to pass a Course even after four attempts, that course is deemed to be exempted for him/her. Then, the student may choose a course of his / her choice with the same number of credits from the pool of courses suggested by the concerned Board of Studies. The course so selected should not have been studied by the student or to be studied in higher semester/s. The faculty advisor shall guide/advise the student in this regard. The college has to make arrangements for the registration and conduction of CIE for the selected course. b) This provision is given only for two courses (one at a time) during the entire maximum duration of a course. (c) This provision is optional; the student/s can continue appearing for SEE with the same course without opting for a change of course.

(vii) Readmission: a) Students who are temporarily discontinuing the program and getting readmitted or rejoin to the eligible semester are subject to a maximum duration of eight (for Regular students) / six (for lateral Entry students) years as applicable. b) The permission for readmission is only on request through the Principal and is not treated as a matter of right. Such students shall not claim any benefits based on the readmission. c) Students who take re-admission to any semester of the existing scheme from another scheme, as a repeater/fresher because of various reasons, shall attend and complete all the remaining semester/s of the program adhering to the regulations of the prevailing scheme and shall complete additional Course/s, if any, as per the decision of equivalence committee in concurrence with concerned Board of Studies on establishing the equivalence between two schemes. Such a candidate shall not be eligible for the award of rank. d) Readmission to odd/even semester shall not be considered as fresh admission and therefore students shall continue to have the same University Seat Number, which was allotted at the time of admission to the program. The maximum duration of the Program



shall be counted with reference to the USN (University Seat Number) allotted during admission to the program.

(viii) Permitted Maximum credits for registration: The student shall be permitted to register for total courses not exceeding 28 credits. These 28 credits include the courses of the regular semester and backlogs. The registration of these additional credits includes the courses having a shortage of attendance and the courses whose CIE requirements are not fulfilled. A student has to pay the prescribed fee as notified by the Institute from time to time.

16. AWARD OF DEGREE

B.E./B.Tech. degree

(a) Students shall be declared to have completed the Program of B.E. / B.Tech. degree and is eligible for the award of degree provided the students have undergone the stipulated Course work of all the semesters under the Scheme of Teaching and Examinations and have earned the prescribed number of credits within the permitted maximum duration and at the end of eighth semester he/she has secured a CGPA of 5.0 or above.

(b) For the award of degree, completion of bridge courses, if any, as applicable is compulsory.

(c) Mandatory Earning of Activity points as prescribed by AICTE. The Activity Points earned shall be reflected on the student's eighth semester Grade Card. (i) AICTE Activity Points (non-credit) have no effect on SGPA/CGPA In case a student fails to earn the prescribed activity Points before the commencement of 8th-semester examinations, the Eighth Semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of the degree only after the release of the Eighth Semester Grade Card.

Sl. No.	Students Category	Activity points prescribed by AICTE
1.	Regular students admitted to the 4 years Degree program	100
2.	Students entering 4 years Degree program through lateral entry	75
3.	Students transferred from other universities to the fifth semester	50



B.E./B.Tech. (Honors) degree

(a) A student shall be declared to have completed the Program of B.E./ B.Tech., degree and shall be eligible to get undergraduate B.E./B.Tech., degree with Honours, provided.

(a.1) the student has undergone the stipulated Course work of all the semesters under the same Scheme of Teaching and Examinations and has earned the prescribed number of credits, i.e. 160 credits for I semester admitted students and 120 for III semester admitted students

(a.2) has earned additional 18 or more credits through institute approved online Courses.

(a.3) satisfied the Regulations Governing the Award of Honors at B.E./B.Tech. Degree Programs – Guidelines.

B.E./B.Tech. with Minor degree

(a) A student shall be declared to have completed the Program of B.E./ B.Tech. Degree and shall be eligible to get undergraduate B.E./B.Tech., degree with minors, provided.

(a.1) The student has undergone the stipulated Course work of all the semesters under the same Scheme of Teaching and Examinations and has earned the prescribed number of credits, i.e. 160 credits for I semester admitted student and 120 for III semester admitted student

(a.2) has earned additional 18 or more credits through a Institute approved courses list submitted by the board of studies.

(1) Noncompliance of CGPA ≥ 5.00 at the end of the Program

(a) Students, who have completed all the courses of the Program but do not have a CGPA ≥ 5.00 at the end of the Program, shall not be eligible for the award of the degree.

(b) In the cases of (a), students shall be permitted to appear again for SEE in course/s [other than Internship, Technical seminar, Project (Mini and Main), and Laboratories] of any Semester/s without the rejection of CIE marks for any number of times, subject to the provision of the maximum duration of the Program to make up the CGPA equal to or greater than 5.00 for the award of the Degree.

(c) In case the student earns improved grade/s in all the reappeared course/s, the CGPA shall be calculated considering the improved grade/s. If it is ≥ 5.00 , the students shall become eligible for the award of the degree. If $CGPA < 5.00$ the students shall follow the procedure laid down in (b).



(d) In case the students earn improved grade/s in some course/s and the same or lesser than the previously earned pass grade/s in the other reappeared course/s, the CGPA shall be calculated considering the improved grade/s and the pass grades earned before the reappearance. If it is ≥ 5.00 , the student shall become eligible for the award of the degree. If $CGPA < 5.00$ the students shall follow the procedure laid down in (b).

(e) In case the student earns improved grade/s in some courses and fails in the other reappeared course/s, the CGPA shall be calculated by considering the improved grade/s and the previously earned pass grade/s of the reappeared course/s in which the student has failed. If it is ≥ 5.00 , the student shall become eligible for the award of the degree. If $CGPA < 5.00$ the students shall follow the procedure laid down in (b).

(f) In case the student fails (i.e., earns F grade) in all the reappeared course/s, pass grade/s of the course/s earned by the students before reappearance shall be retained. In such cases, the student shall follow the procedure laid in (b).

(g) The student shall obtain written permission to reappear in SEE to make up the CGPA equal to or greater than 5.00.

(2) Noncompliance of Mini-project

The mini-project shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take up/complete the mini-project shall be declared fail in that course and shall have to complete the same during subsequent University examinations after satisfying the Miniproject requirements.

(3) Noncompliance of Major-project

The Project Work shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take up/complete the Major-project shall be declared fail in that course and shall have to complete the same during subsequent University examinations after satisfying the Major-project requirements.



(4) Noncompliance of Internship

All the students of B.E./B.Tech. shall have to undergo mandatory internship. The internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take up/complete the internship shall be declared fail in that Course and shall have to complete the same during subsequent University examinations after satisfying the internship requirements.

17. MEDALS AND CASH PRIZES

Medals and Cash awards are given to the best students / toppers in every branch. For the award of prizes and medals the conditions stipulated by the Donor are considered in addition to the statutes formed by the college /VTU.

18. DISCIPLINARY ACTIONS AND RELATED MATTERS

18.1. Withholding of grades

The grades of a student may be withheld if he/she has not paid his/her fee (or any dues) or if there is a disciplinary case pending against him/her or for any other reason to be specified by Academic Council (AC) from time to time.

18.2 Termination from the program

A student may be required to withdraw from the program and leave the Institute as per the guidelines of the VTU from time to time.

18.3 Conduct and Discipline

a) Each student shall behave himself/ herself in a manner befitting his/her association with PDACEK. He/she is expected not to indulge in any activity which is likely to bring down the reputation of the institute. He/she should show due respect and courtesy to the faculty, administrators, officers and



employees of the institute. He/she should exhibit good behaviour with fellow students. Dean of Student Affairs will issue the character and conduct certificate if a student requests it.

b) Violation of code of conduct shall invite disciplinary action which may include punishment such as reprimand, disciplinary probation, fine, debarring from the examination, withdrawal of placement services, withholding of grades / degrees, cancellation of registration and even expulsion from the institute.

c) The faculty in-charge of a subject will have powers to debar a student from the examination if a student is found indulging in unfair means of any form in the examinations. However, the aggrieved student may approach Academic Council (AC) with a written complaint for redressal.

d) The Warden(s) in-charge of institute hostel have powers to reprimand, impose fine or take any other suitable measures against a resident student who violates either the code of conduct or rules and regulations pertaining to the institute hostel.

e) Involvement of a student in ragging may lead to his/her expulsion from the institute.

f) A student, faculty or other functionary of the institute can report violation of the code of conduct by an individual or a group of students to Academic Council.

g) If a student is found guilty of some offence then, AC may not recommend for the award of a degree even though, a student has satisfactorily completed all the academic requirements.

h) For any legal appeal in court of law, no objection is mandatory from the College.