Indian Institute of Technology Goa (IIT Goa) has been at the forefront of academic excellence since its inception in 2016. Our commitment is to provide top-tier education in the fields of technology and science, nurturing not just engineers and scientists, but visionary leaders equipped with managerial and entrepreneurial acumen. Our graduates are instilled with team spirit and leadership qualities, ready to make significant contributions to our nation and society.

Our objectives are clear:

* Excellence in Education: We aim to offer the highest standard of education, empowering our students with profound knowledge and practical skills.
* Promoting Inquiry and Knowledge Development: We foster an environment of intellectual curiosity, encouraging students to engage in free and objective inquiry across various disciplines.
* Nation Building: We believe in active student participation in nation-building endeavors. Our focus is on technology development tailored to meet local needs, ensuring our students play a vital role in shaping the future of our country.

The academic programs at IIT Goa adhere to stringent rules and regulations, as approved by the esteemed Senate, the supreme body governing all academic matters. The Senate, led by the Chairman, diligently monitors and refines our academic offerings, setting definitive timelines for various activities. The Under-Graduate Committee (SUGC), a dedicated body under the Senate, assesses student performance comprehensively, determining their progress and continuation at the institute.

At IIT Goa, students are our priority. We are deeply committed to providing an enriching and student-focused environment. Our goal is to equip our students with the knowledge, skills, and experiences necessary to become exceptional scientists and engineers. I extend my heartfelt gratitude to all the students who have chosen IIT Goa. I wish you a

vibrant and successful future, filled with remarkable achievements and fulfilling careers.

Thank you for choosing IIT Goa, where excellence meets opportunity.

Warm regards,

Introduction:

IIT Goa's commitment to providing a holistic and enriching educational experience for its undergraduate students is facilitated through dedicated committees and units within the institute. These committees are instrumental in shaping the academic journey and ensuring the well-being of our students. Here's an overview of the key committees involved in the undergraduate programs:

**Programme Undergraduate Committee (PUGC):** Each academic department at IIT Goa establishes a Programme Undergraduate Committee (PUGC). This committee comprises a Convener, nominated in consultation with the department faculty, a Faculty Coordinator of the Programme who serves as the Chairman of PUGC, and two student representatives chosen annually by the undergraduate students of the department. Faculty members have a tenure of two years, with a rotation ensuring continuity and fresh perspectives. The primary functions of PUGC include advising students on curriculum and academic opportunities, monitoring the progress of academically challenged students, and addressing any challenges faced by students in their academic pursuits.

**Senate Undergraduate Committee (SUGC):** The Senate Undergraduate Committee (SUGC) is a pivotal standing committee constituted by the Senate, entrusted with overseeing all matters related to institute-level undergraduate programs. SUGC plays a crucial role in advising the Senate on academic policies, addressing specific problems related to undergraduate students and programs, and recommending solutions. Its members include conveners from various PUGCs where applicable, the immediate past SUGC chairperson (ex-officio), one Senate nominee, and four student representatives nominated by the Student body. The chairperson is elected by the constituent members, ensuring effective leadership and representation.

**Outline of the Undergraduate Program:**

The Bachelor of Technology (B. Tech) program encompasses a comprehensive curriculum that spans various domains, including Sciences, Humanities, Social Sciences, Engineering, Technology, and related subjects. The program is structured into four distinct stages, each designed to provide students with a holistic educational experience.

In the initial stage, all undergraduate students are introduced to the fundamentals of sciences, humanities, and technical arts, including hands-on workshops. This foundational knowledge forms the basis for all UG programs.

Moving into the second stage, students delve into engineering courses that emphasize interdisciplinary learning. This phase focuses on cultivating a broad-based understanding of the connections between science, engineering, and humanities, fostering a well-rounded perspective.

The third stage is dedicated to specialized studies in the chosen areas of focus. Here, students explore the principles governing design, enhancing their skills in physical and analytical modeling, as well as design and development. This stage nurtures their ability to tackle complex engineering challenges effectively.

In the final stage, engineering students engage in advanced studies, addressing integrated design problems with a keen awareness of factors like size, performance, optimization, and cost. They undertake independent research through a B.Tech. Project, gaining expertise in research methodologies, library references, utilization of engineering scientific equipment, modern computational techniques, and the composition of technical and scientific reports.

Throughout the latter stages, students are introduced to the social and economic objectives of the contemporary era. They explore the intricate relationship between humans, machines, and nature. This multifaceted learning experience is facilitated through elective courses in humanities and social sciences, practical training, fieldwork, industry visits, and seminars.

Additionally, environmental issues are a focal point, addressed through an introductory course in environmental science and engineering. This comprehensive approach ensures that graduates not only excel in their technical proficiency but also possess a deep understanding of the societal, economic, and environmental contexts in which their engineering expertise operates.

The degree program offered by the Institute has specific requirements, broadly classified as follows:

(a) Institute Requirements: This category is further divided into Core courses, Elective Courses, and other necessary requirements.

(b) Departmental Requirements: Within this category, students must fulfill Compulsory courses, Elective courses, along with other specific requirements such as Projects, Internship, and Seminars.

**Academic Session:**

**1.1. Semester**

The academic session at the Institute is structured around a specialized credit-based semester system. The session typically spans from the end of July in one year to the middle of July in the following year. This period is divided into three parts:

Semester I (Autumn Semester): From the fourth week of July to the last week of November.

Semester II (Spring Semester): From the first week of January to the first week of May.

Summer Term (Not a Regular Semester): From the middle of May to the middle of July.

During the academic year, Semester-I commences in July and is referred to as the Autumn Semester, while the semester that begins in January is known as the Spring Semester. Additionally, there is a Summer Semester (not considered a regular semester) that takes place during the summer vacation period, ranging from the middle of May to the middle of July. During this time, the Institute offers summer courses and self-study options, subject to availability and the consent of the faculty member(s). These initiatives are designed to provide students with an opportunity to clear any backlog courses they might have.

**1.2 Duration**

Each of the two regular semesters, namely Autumn Semester (Semester I) and Spring Semester (Semester II), spans approximately sixteen weeks, which includes one week designated for a mid-semester recess. During each semester, approximately nine working days are allocated for the end-semester examination, and an additional one-week period is set aside for mid-semester examinations.

Within each regular semester, around fourteen weeks are dedicated to teaching, excluding all holidays and days designated for both mid-semester and end-semester examinations.

In contrast, the Summer Term, which is not a regular semester, consists of eight teaching weeks, excluding holidays and examination days.

**1.3 Academic Calendar**

The Institute provides a comprehensive Academic Calendar each year, detailing all significant academic activities. These activities include registration and late registration dates, the final deadline for document submission, the first and last days of classes, add-drop periods for courses, examination schedules, makeup examination dates, the deadline for submission of final grades, and vacation periods. This Academic Calendar is annually published by the office of the Dean (Academic Program) and is made accessible to the students. Furthermore, the Academic Calendar is readily available on the Institute's official website, ensuring easy access for all concerned parties.

**2. Curriculum / Programme of Study**

**2.1 Curriculum**

In every Department, there exists a designated course structure referred to as the Curriculum or Course of Study. This curriculum outlines the specific courses to be studied in each semester. These course structures are regularly updated every semester to ensure they reflect the most current academic standards and knowledge. Students can access the updated course structures on the Institute's official website. This accessibility ensures that students have the most recent and accurate information regarding their academic requirements and can plan their studies accordingly.

**2.2 Course Credit System/Structure**

The course credit system/structure is outlined as per the minutes of the Curriculum Committee.

**3. Registration**

**3.1 Semester-wise Registration**

At the commencement of each semester, registration is mandatory for every student and is conducted on specific dates as announced periodically. This process applies to every student until the completion of their academic program. Upon enrollment in the Institute or at the start of each academic year, every student is assigned a Faculty Adviser (FA).

During the registration period, students can select the courses they intend to take for the upcoming semester or summer term. This selection is based on the guidelines provided in the Courses of Study and the advice given by their respective Faculty Adviser. The Faculty Adviser engages in discussions with the student regarding their academic performance in the preceding semester. Based on this evaluation, the Faculty Adviser determines the number and nature of courses suitable for the student to enroll in, adhering to the guidelines established by the Student Undergraduate Committee (SUGC).

Additionally, the Faculty Adviser holds the authority to permit students to drop one or more courses based on their academic performance after the first semester/year and its corresponding evaluation. In cases where students exhibit poor performance, the Faculty Adviser may create a revised, slower-paced plan of study to support the student's academic progress. This individualized approach aims to assist students in achieving their academic goals effectively.

**3.1.1 Procedure for Registration**

The Institute employs both offline and online registration systems. Registration typically occurs during the first two days of each semester and the summer term. The registration schedule, including specific dates, is communicated in advance through the Academic Calendar. During this period, students are required to consult their respective Faculty Advisers for guidance and registration. This consultation involves the selection of courses in accordance with the credit requirements outlined in the Courses of Study. The selection of courses is subject to the student's performance in the previous semester.

The academic registration process is considered complete only after approval from the PUGC convener/Faculty Adviser. A registration is deemed valid only if there are no timetable conflicts among the registered courses, both current and backlog courses. Registration will be considered invalid until this procedure is properly completed. Additionally, registration must be finalized on or before the specified last date; students with outstanding dues to the Institute or hostel will not be allowed to register. Late registration might be permitted under valid circumstances, subject to the payment of a late registration fee as prescribed.

Students with backlog courses are required to fill out a Course Registration Form (CRF), which will be provided by the Academic Section. The CRF will include all compulsory courses for the semester, pre-printed. Students must duly complete the CRF, have it approved by their Faculty Adviser, and submit it to the Academic Section for further processing. Faculty Advisers have the authority to recommend a reduced course load for students with backlogs, following the regulations set by the Student Undergraduate Committee (SUGC). This approach ensures tailored support for students dealing with academic challenges.

**3.1.2 Registration for the First Two Semesters**

During the first two semesters of the program, students are required to register for all the courses listed in the curriculum for each respective semester. Additionally, students identified as academically weak at the end of the first semester may be assigned a specially devised course load in consultation with their Faculty Adviser. These students are required to undergo manual registration.

It is important to note that the registration of a student in a particular course may be cancelled by the Academic Section at any stage if the student does not meet the prerequisites of the course or if there is a scheduling conflict preventing the student from attending the course. Furthermore, if a student is found ineligible to register for a course due to any reason, the registration can be cancelled. Instructors also have the authority to recommend the cancellation of registration for students who are consistently absent from classes without proper authorization. In such cases, instructors can recommend the deregistration of these students up to four weeks prior to the last day of classes.

Instructors who wish to recommend the deregistration of a student should submit their recommendations to the Chairperson of the Student Undergraduate Committee (SUGC). Simultaneously, the same information should be communicated to the relevant Programme Undergraduate Committee (PUGC). The decision made by the SUGC Chairperson in each case will be conveyed to both the instructor and the student at least two weeks prior to the last day of classes. This process ensures that students are registered for courses in which they are eligible and capable of actively participating, maintaining the integrity of the academic environment.

**3.1.3 Registration for Third and Subsequent Semesters**

Starting from the third semester and onwards, students are required to register for every semester until the completion of their academic program. During these semesters, students are typically expected to register for a minimum number of credits as recommended by the Programme Undergraduate Committee (PUGC). This recommendation takes into account the grades obtained in re-examinations, if applicable.

Each course is assigned a specific number of credits, indicating the approximate weekly contact hours (lectures, tutorials, laboratory sessions) as well as self-study hours required for the course. The credit calculation for a course follows the formula:

C = 3L + 2T + P + A,

where

C represents the number of credits,

L is the number of lecture hours,

T is the number of tutorial hours,

P is the number of laboratory hours, and

A represents additional hours needed for assignments and projects, as determined during the course approval process.

The standard academic load is set at up to 36 credits per semester. However, students are allowed the flexibility to register for up to 30 percent less or 30 percent more credits than the normal load.

Exceptions to the Regular Rules Regarding Academic Load include:

(a) Under-load: Students identified as academically deficient (placed on academic probation) may register for a minimum of 10 credits, as advised by the Faculty Advisor/PUGC.

(b) Over-load: In special cases, students may register for courses beyond the graduation requirements, based on the advice provided by the Faculty Advisor/PUGC.

Additionally, withdrawal from studies on medical grounds or due to other exceptional reasons may be permitted by the Student Undergraduate Committee (SUGC) for a maximum of two semesters during the student's entire academic program. However, if a student fails to register for a regular semester (Autumn or Spring) without prior permission from SUGC, they will be deregistered from the program and may not be normally readmitted. This policy ensures the continuous and appropriate progression of students throughout their academic journey.

**3.2 Registration for Summer Term**

During the summer term, students can register for a maximum of four courses upon payment of the prescribed registration fees. To run a course during the summer term, a minimum of five students must register, and a faculty member must be available to offer the course. The attendance of registered students will be monitored by the course instructor, who has the authority to award a "DX" grade for poor attendance. Normal grading standards will be followed for summer courses.

**3.3 Course Adjustment (Adding and Dropping of a Course)**

Within the first two weeks of the semester, students are allowed to adjust their academic load by adding or dropping one or more courses, provided the total credits specified in the curriculum are not affected (overload or underload). If students find their academic load excessive in the third semester or subsequent semesters, they may drop one or two courses out of the registered ones, ensuring the minimum credit requirement is met. This adjustment must be made in consultation with the faculty adviser/PUGC convener within two weeks from the start of the semester.

Students must manually fill out a Course Adjustment Form (CAF) for adding, substituting, or dropping courses. Each add/drop request requires approval from the concerned course instructor and the faculty adviser/PUGC Convener. Both the student and the Faculty Adviser must sign each copy of the form. All course adjustments, including dropping of courses, must be completed before the last date for course additions and drops, as specified in the Institute's Academic Calendar. Students facing academic difficulties or exceptional cases may be allowed to drop courses (while maintaining the minimum credit requirements) even after the official deadline for dropping courses. This special permission can be granted by the SUGC based on recommendations from the faculty adviser and the PUGC Chairperson.

Adding of courses is not permitted during the summer term. However, students are allowed to drop a course up to two weeks before the last day of classes for the summer course.

**3.4 National Sports Organization (NSO)**

During the first two semesters, students are required to register for any one of the NSO activities as a mandatory requirement. The choice is made based on the student's aptitude and is determined by a committee constituted for this purpose. Once registered for an NSO activity, no changes are permitted at a later stage. This requirement must be completed before the end of the second year. Students will receive a PP (Pass) grade for this activity if they meet the minimum requirements, including 80% attendance. Failure to meet these requirements will result in an NP (Not Pass) grade. Successful completion of NSO is a prerequisite for degree awarding.

Additionally, students interested in NSO activities are allowed to participate in subsequent years.

**3.5 Courses in the Unscheduled Semester**

If a course has five or more repeaters/backlog students, the Faculty Coordinator of the respective program may consider offering the course an additional time, even if it is not scheduled for that semester. This decision is subject to timetable constraints and the availability/willingness of a faculty member. Approval for such a proposal must be obtained from the PUGC and the Dean (AP). Strict adherence to the rules governing overload will be observed in allowing students to register for such courses.

**3.6 Grant of Leave/Semester Drop on Medical Ground**

**3.6.1 Mid-Semester Recess and Vacation:**

Undergraduate students are entitled to avail the mid-semester recess, winter, and summer vacations as specified in the Academic Calendar without seeking any permission.

**3.6.2 Short Leave:**

While leaves during the semester are discouraged, students can apply for a maximum of ten working days of medical leave per semester and a maximum of five working days for other valid reasons. In total, no student may be granted leave of absence exceeding fifteen working days in a semester. In the summer term, the leave period is limited to five working days for medical reasons and three working days for other reasons, totaling eight working days. Leave of absence requests must be submitted to the Academic Office through the Faculty Coordinator.

**3.6.3: Temporary Withdrawal / Semester Leave**

Students may be granted a leave of absence for an entire semester (temporary withdrawal) due to genuine reasons. Such leave typically should not exceed two semesters, with or without a break, during the entire duration of the academic program. The following procedures and guidelines apply:

(a) Application Process:

* Students must submit an application for temporary withdrawal before the semester's registration date, as specified in the Academic Calendar. In exceptional circumstances, a student may apply for withdrawal at any point during the semester.

(b) Application Submission:

* The application for temporary withdrawal should be addressed to the Dean and must be routed through the Department Coordinator and Faculty Advisor.
* Supporting documents, such as an original Medical Certificate in the case of illness, should accompany the application.

(c) Medical Certification:

* If a student remains on authorized leave of absence due to illness, they are required to submit a certificate from a Registered Medical Practitioner.
* This certificate must be ratified by the Medical Officer (MO) at the Institute and should confirm that the student is sufficiently recovered and fit to resume their studies.
* The student's registration will be provisional until the Medical Officer certifies their fitness.
* If the MO recommends that the student is not yet fit to resume studies, the registration may be canceled.

These guidelines ensure that students have the necessary provisions in place to handle temporary withdrawals due to valid reasons, and the process is managed transparently and efficiently through the Institute's administrative channels.

**4. Examination / Assessment**

**4.1 Attendance**

Attendance in classes is mandatory and will be closely monitored. A student failing to maintain a minimum of 80 percent attendance (a specific attendance standard announced by the course instructor before the semester begins) may be barred from appearing in the semester-end examination. In such cases, the student will receive a DX grade, and they will need to re-register for the same course. The Institute generally expects 100% attendance, and a minimum of 80% attendance is allowed only in cases of medical grounds or other emergency conditions. A medical certificate from IIT Goa Health Centre or a Government Hospital (to be endorsed by the MO, IIT Goa) is necessary for obtaining leave on health/medical grounds.

**4.2 Modes of Assessment**

Various assessment methods are employed to evaluate students' performance in lecture courses. These methods include quizzes, class tests (open or closed book), home assignments, seminars, group assignments, viva-voce examinations, mid-semester examinations, and semester-end examinations. The weightage distribution for these assessment modes is typically as follows:

* Mid-Semester Test: There will be one mid-semester test lasting two hours for each course, as scheduled in the Academic Calendar. No regular classes will be conducted during the examination period. The mid-semester test accounts for approximately 30 percent of the total marks.
* Quizzes/Tests/Assignments/Viva-Voce: Two quizzes (or one quiz and one test) and/or assignments or viva-voce examinations constitute the rest of the in-semester assignments, contributing around 20 percent of the total marks. Active participation in classroom discussions may contribute up to a maximum of 10 percent of the total marks at the instructor's discretion.
* Semester-End Examination: The semester-end examination carries a weightage of 50 percent. It is compulsory for all students and covers the entire syllabus of the course.

For laboratory courses, assessment is based on continuous supervision of the student's work, performance in viva-voce examinations and group discussions, quality of work documented in laboratory journals, and an end-semester test comprising an experiment or a written exam. In-semester work typically accounts for 75% of the total marks, and the end-semester test contributes 25% of the total marks. The distribution of marks between in-semester and end-semester evaluation may vary at the instructor's discretion, and the instructor will specify the mode of evaluation and mark distribution at the beginning of the course. Maintaining a laboratory journal as prescribed by the course instructor is mandatory.

The final examination for laboratory courses is usually held a week before the final theory examination. These assessment methods ensure a comprehensive evaluation of students' knowledge, skills, and active participation in both lecture-based and practical aspects of their courses.

**4.3 Grading**

**i) Grading System**

For each course taken by a student, they are assigned a grade based on their overall performance throughout the semester in all assessments within that course. These grades are described using the following letter grades and their corresponding numerical equivalents:

- AP: 10

- AA: 10

- AB: 09

- BB: 08

- BC: 07

- CC: 06

- CD: 05

- DD: 04

- FF: 00 (Eligible for one re-exam)

- FR: 00 (Repeat the course)

- DX: Fail (Lack of attendance - Repeat the course)

- II: Incomplete (due to health reasons)

- DR: Dropped

- PP: Passed

- NP: Not Passed

- AU: Audit Course

A student passes a course if they receive any grade within the range of AP to DD, but they fail if they receive the grade FF, FR, or DX. The grade DR indicates that the student has dropped the course. However, the minimum passing grade for each stage of the dual degree project assessment is "CC."

**ii) Re-Examination and FF Grade**

A student receives the fail grade FF if their performance in a course is poor. They are eligible for a 50% weightage in the re-examination, only once, immediately following the end-semester examination as per the timetable announced by the Academic Section. If absent for such re-examination for any reason, the student will be awarded an "FR" grade. A student with an FR grade is not eligible for re-examination in that course and must re-register for that course whenever it is offered. The maximum grade offered for a re-exam is DD.

**iii) Awarding of FR Grade**

An FR grade is awarded in cases where, in the opinion of the instructor, the student has not had adequate academic exposure to the course and should therefore repeat the course. The FR grade may also be awarded in cases of minor malpractice in examinations/assessments. A student with very poor in-semester performance may be awarded the "FR" grade by the instructors, even if they have missed the end-semester examination due to any reasons.

**iv) The DX Grade**

The DX grade in a course is awarded if a student does not maintain at least 80% attendance in the Lecture/Tutorial classes. DX grades may also be awarded to students with poor or incomplete in-semester records for non-medical reasons. The DX grade will be declared in the first week of November for Autumn Semester Courses and in the first week of April for Spring Semester Courses (generally one week before the semester end exams). A student with a DX grade in a given course is not permitted to take the semester-end examination in that course and must re-register for the same course whenever it is offered.

**v) The Incomplete Grade "II"**

In addition to the above grades, there is also an incomplete grade "II" awarded in a lecture/lab course if a student has satisfactory in-semester performance but has not appeared for the end-semester examination due to medical grounds. The student is entitled to a 50 marks re-examination given at the end of the particular semester. The "II" grade will be converted into a performance grade depending on the overall performance in the course after the re-examination. Further details should be discussed with Prof. Biswas.

**4.4 Re-examination Due to Illness or Accident**

If a student misses an examination due to personal illness or an accident, they must apply for a re-examination. The application should be supported by a proper medical certificate duly approved by the Medical Authority of the Institute. In case of the death or serious illness of a parent or guardian, the application should be supported by adequate evidence, routed through the Faculty Advisor/PUGC. The student must submit the medical certificate to the academic office. Any student who fails to apply for re-examination in the prescribed manner will be considered to have failed in those courses and will be awarded an "FR" grade. They will be required to repeat those courses.

**4.5 No Fail Policy - SPI/CPI**

**4.5.1 Semester Performance Index (SPI)**

The performance of a student in a semester is indicated by a number called the Semester Performance Index, SPI. The SPI is the weighted average of the grade points obtained in all the courses registered by the student during the semester. For example, if a student passes five courses (including Theory, Labs, Projects, and Seminars) in a semester with credits C1, C2, C3, C4, and C5, and their grade points in these courses are g1, g2, g3, g4, and g5, respectively, then their SPI is calculated as follows:

SPI = (C1g1 + C2g2 + C3g3 + C4g4 + C5g5) / (C1 + C2 + C3 + C4 + C5)

The SPI is calculated to two decimal places. The SPI for any semester will take into consideration the "FR" grades awarded in that semester. For example, if a student has failed in course 4, the SPI will be computed as follows:

SPI = (C1g1 + C2g2 + C3g3 + C4\*ZERO + C5g5) / (C1 + C2 + C3 + C4 + C5)

Courses that do not fulfill the minimum degree requirements will not be considered for the calculation of the SPI. Any additional courses undertaken and the grades earned by the student will be shown separately.

**4.5.2 Cumulative Performance Index (CPI)**

An up-to-date assessment of a student's overall performance from the time they entered the Institute is obtained by calculating a number called the Cumulative Performance Index, CPI, in a manner similar to the calculation of SPI. The CPI considers all the courses registered by the student toward the minimum degree requirement since their enrollment at the Institute. The CPI is calculated at the end of every semester to two decimal places and is indicated in semester grade reports. The CPI will reflect the failed status in case of "FR" grade(s) until the course(s) is/are cleared. When the course(s) is/are cleared by obtaining a passing grade on subsequent registration(s), the CPI will only reflect the new grade and not the fail grades earned earlier.

For example, up to semester r, a student has registered for n courses, among which they have an "FR" grade in the course i. The semester grade report at the end of semester r will contain a CPI calculated as follows:

CPI = (C1g1 + C2g2 + C3g3 + ... + Ci\*ZERO + Cn\*gn) / (C1 + C2 + C3 + ... + Ci + ... + Cn)

Even if a student has failed in a course more than once, the course will be counted only once in the numerator as well as the denominator. At the end of semester r+1, if the student has registered for four more courses, including the backlog course i, and has cleared all the courses, including the backlog course, the CPI at the end of this semester is calculated as follows:

CPI = (C1g1 + C2g2 + C3g3 + ... + Ci\*gi + ... + Cn\*gn) / (C1 + C2 + C3 + ... + Ci + ... + Cn)

Courses that do not fulfill the minimum degree requirements will not be considered for the calculation of the basic CPI. These courses will be shown separately, and a separate CPI will be calculated for these courses. There will also be a combined CPI calculated, which considers all the credits earned by the student. At the end of each semester, the grade report reflecting the student's performance in that semester is sent to the Faculty Adviser of the respective student, a copy to the concerned student, and a copy to the parent, which is also sent to their respective addresses by post and email.

**4.5.4 Implications of Fail Grades on CPI**

The CPI will reflect all courses completed by the student, including courses where they have failed. As a result, "FR" and "DX" grades will affect the CPI and SPI of the student. In the case of "FF" and "II" grades, the CPI will be calculated based on the grade obtained by the student on a successful attempt in the re-exam, which will be restricted to a maximum of "DD."

**4.6 Fail and Incomplete Grades (Conversion Rule)**

**4.6.1 "II" Grade**

The "II" grade is awarded to students with a satisfactory and complete in-semester record who miss the end-semester exam for reasons deemed acceptable in rule 4.4. However, if the student fails to appear for the re-examination, even on admissible grounds, they shall be considered to have dropped the course. If the reason for absence at the re-exam is not supported by a medical certificate, the "II" grade awarded will be revised to "FR." Thus, the "II" grade gets converted to one of the following: (i) "DR" (course dropped, as above), (ii) "FR" in case of poor performance or unjustified absence for the re-exam, and (iii) a passing grade depending on the student's performance. The "II" grade will not be continued beyond the semester-end re-examinations.

**4.6.2 "DX" Grade**

An "DX" grade is treated as equivalent to "FR" for the purpose of CPI calculation. Additionally, the following criteria, in addition to poor attendance (less than 80%), may be considered for the award of a "DX" grade: (i) Badly incomplete in-semester record (due to non-medical reasons), for example, in the case of a student who has missed all tests and mid-sem exams, (ii) Misconduct or use of unfair means in the examination, assignments, etc., of a nature serious enough to invite disciplinary action in the opinion of the instructor. It is emphasized that the award of the "DX" grade is an immediate action in such cases, and the case may be referred to the SSAC (Senate Students Advisory Committee) for consideration of further punishment depending on the seriousness of the offense. The names/roll numbers of students to be awarded the "DX" grade should be communicated to the Academic Office as per the academic calendar in advance of the end-semester examination.

**4.6.3 FF and FR Grades**

**i)** In-semester performance of all students should be displayed and sent to the academic office by the instructor before the end-semester examination. Those awarded 'DX' grades as described above will be clearly identified in this list as per the academic calendar.

**ii)** Based on the in-semester performance, the instructor also decides and publishes a cut-off (based on the average performance of the class), above which the in-semester performance is considered 'Satisfactory.' (This limit would be similar to the lower limit for the DD grade).

**iii)** A student with a 'Satisfactory' in-semester performance should not be given an 'FR' grade in the overall assessment. Such a student, in the event of overall poor performance (not passing), should be given an 'FF' grade and a chance at re-examination. The maximum grade obtainable in such a re-examination is limited to DD. It is thus clarified that grades FF and II are place-holders only and do not enter into CPI/SPI calculations directly. These grades get converted to one of the regular grades after the semester-end re-examinations. However, FR and DX grades are given for different reasons and have direct consequences on SPI/CPI.

**4.6.4 Policies on Disclosing Evaluated Answer Books, Retention Period, and Re-evaluation**

A course instructor should allow students to see the evaluated answer scripts at their discretion, as long as this is done before the finalization of grades. The limit fixed for such disclosure is three days before the last date for receiving grades in the Academic Office. The time and venue will be decided and conveyed by the course instructor.

There is a provision for requesting a re-totalling on payment of Rs.200/- per course. Such requests will be processed by the Academic Office.

Any change in grade requires the approval of the Chairman of the Senate.

Once grades are published, changes, if any, will be allowed in case of totaling and tabulation errors only. A request for re-totalling must be made by the student to the Academic Office using the prescribed form, which will be sent to the faculty for further action. Students must not contact faculty directly.

Evaluated answer scripts should be preserved by the Instructor/Departmental Office for a minimum period of one semester.

**4.7 Re-examination (50% Weightage)**

For students obtaining FF and II grades in a course, there will be only one chance to clear the course by re-examination. This re-examination will carry 50% weightage and will be held immediately following the main examination. Another 50% will be from the end-semester examination. The grading will be done in the same way as is done in the end-sem examination. The maximum grade obtainable with the re-exam is outlined below:

**4.7.1** Re-examination for students who are awarded "II" grade but have attended a major part of the in-semester assessment and whose performance is good enough to justify a re-examination, or in the case of students getting an 'II' grade and whose absence from the semester-end examination is on valid grounds, will be permitted to take the re-examination. Re-examinations are held toward the end of the winter vacation for those who missed the first semester (Autumn) examination and toward the end of the Summer vacation for those who missed the second semester (Spring) examination. After re-examination, the student is entitled to an appropriate grade based on their in-semester and re-examination performance. There will be no grade restriction. If the student misses the re-examination due to a medical reason, the II grade will be converted to drop (DR), and if the student misses the re-examination due to a non-medical reason, the II grade will be converted to FR, and the student will have to repeat the course.

**4.7.2 Re-examination Due to FF**

Students who are awarded an "FF" grade may be permitted to take the re-examination. Re-examinations are held toward the end of the winter vacation for those who failed in the first semester (Autumn) examination and toward the end of the Summer vacation for those who failed in the second semester (Spring) examination. In such re-examination, if the student passes, the maximum grade obtainable shall be limited to "DD." If the student misses or fails the re-examination, the "FF" grade shall get converted into "FR," and the student will have to repeat the course.

**4.8 Treatment of Malpractice / Unfair Means**

An "FR" grade may be awarded to those students found/reported for malpractice or using unfair means in an Examination/Re-examination/Assessment. In addition to this, the decision of SSAC in such matters will be final and binding.

**5. Special Features in Registration**

**5.1 Carrying Backlogs Forward**

Every student must register for a minimum number of credits each semester as prescribed by PUGC. Normally, students should register for the backlog courses at the first available opportunity. However, the Faculty Adviser may advise the students appropriately for dropping the backlog course in favor of the prerequisite course to avoid a cascading effect in subsequent semesters. Faculty advisers and PUGCs should exercise special care and assist the students in this regard.

**5.2 Audit Course**

Auditing of courses by undergraduate students during regular semesters and the summer term is permitted under the following conditions:

**i)** Students with a CPI of 7.5 and above will be permitted to "Audit" the course. However, this would be restricted to a maximum of 2 courses during the entire period of the program.

**ii)** Students have to enter the courses to be audited in the Course Registration Form while registering for the semester. The audited course will not carry any credits, and the word "Audit" will be specially mentioned in the remarks column of the student's course registration form. Prior permission of the Instructor is required.

**iii)** Students are required to have a minimum 80% attendance in the Audit course.

**iv)** The "AU" grade will be awarded by the instructor if the attendance is satisfactory and the requirements set out by the instructor are met. Students will be expected to complete the in-semester assessments. If the attendance and performance are not satisfactory, the course will not appear at all in the grade card.

**v)** Students can audit a course provided the course is offered and the timetable slot permits.

**vi)** The course done by auditing will not be considered for the purposes of calculating SPI/CPI but will be reflected in the Semester Grade Report as an Audit Course.

**5.3 Guided Study**

Capable students will have the option of Guided Study to acquire proficiency in an area of their choice by completing courses outside their curriculum through a self-study-like mode. This option is subject to the availability and willingness of the instructor offering the course. It will be available to students with a CPI of 8.5 or more to the extent of a maximum of one course per semester in the third and subsequent years. This recommendation should come from the faculty adviser/project guide, PUGC, and be approved by SUGC. The registration, examination, and evaluation for Guided Study will be similar to self-study courses. This option can be used on a case-by-case basis with prior approval from SUGC. The rules governing overloading apply strictly even for Guided Study. This option is meant for students who wish to delve into areas beyond their curriculum.

This option is also available in the following special situations, provided the CPI requirement is met:

**(a)** Students who miss the 'Departmental Introductory Course' due to a change of branch obtained at the end of the first year.

**(b)** Students who need to drop an entire semester due to medical reasons.

**5.4 Repeating a Course**

A student is required to repeat a course completely under the following situations:

**i)** When they receive an "FR," "NP," or "DX" grade in a course.

**ii)** A student with an "FF" grade in a course can avail only 50% marks re-examination in that course immediately after the end-semester examination. If they fail in the re-examination or do not appear for it for any reason, they will be awarded an "FR" grade, and in that case, they have to re-register (repeat) the course.

**iii)** When a student who gets an "II" grade fails to apply or does not appear for a re-examination giving valid/medical reasons for absence at the end-semester examination, the grade "DR" is awarded automatically to such a course.

**iv)** When a student who gets an "II" grade and subsequently becomes eligible for re-examination does not appear on the scheduled date, for any non-medical reason, the grade "II" is automatically converted into an "FR" grade.

**v)** Students are permitted to overload on account of a backlog laboratory/drawing course only up to 3 credits during a regular semester when the course is being offered, with prior permission of the SUGC provided there is no scheduling clash.

**5.5 Course Substitution**

Normally, substitution of one course (in which one obtains an "FR/DX" grade) by another is discouraged. However, substitution may be permitted in case of "FR," "DX," and "DR" in the same group of courses as given in the courses of study bulletin, subject to the following conditions:

**5.6.** If it is a core or compulsory course, there will be no substitution, and the same course must be repeated.

5.6.1 In case of "FR" or "DX" in an Institute elective course, it may be substituted by another Institute elective only.

5.6.2 If it is a departmental elective, it may be substituted by another departmental elective course from the same group.

**5.7 Overloading of Courses**

Students with a CPI of 8.5 or above (irrespective of any backlogs) may be permitted to take one course per semester as an overload provided the timetable permits. There shall be no relaxation of the CPI criterion. A change of status from Credit to Audit in respect of such courses may be allowed up to the mid-semester examination, with the prior approval of the SUGC.

However, students may be allowed to overload with a course in the regular semester from the fifth semester onwards to clear backlog courses with the prior approval of the SUGC, subject to a minimum CPI of 6.5 and timetable slot availability. There shall be no further relaxation of CPI criteria.

**5.8 Self Study**

To enable a student to complete the course credit requirements by the end of the fourth year for B. Tech, a student with a backlog of only one or two courses may take self-study courses after obtaining necessary approval from SUGC. The process for self-study courses is as follows:

- An application for self-study must be made to SUGC in the prescribed form and should be signed by the supervising teacher who may examine the student from time to time, apart from an examination at the end of the course.

- The duration of the self-study course is between 8 and 10 weeks. The course should be completed, and a grade obtained in the semester in which the registration is done. There is no carryover of the self-study course from one semester to another.

- SUGC will consider each application for self-study on its merits and will restrict the total number of such courses to only two during the entire program of a student. The credits for a self-study course are the same as those for the regular course and will be taken into account while calculating the total credits in a semester, which should not exceed the normal load.

- Opportunities for clearing backlogs may become available through summer courses and by running courses in unscheduled semesters. However, for the Self-study option, the following directives will be followed:

(a) The Self-study option will strictly be restricted only to (B.Tech.) students in the summer of the final year, and for a maximum of two courses.

(b) The restriction on students with "FR" or "DX" grades in a subject not being eligible for the self-study option for that course may be waived by the Departments if only two courses are remaining for completion of the degree. Otherwise, instructors or departments may insist that the concerned students should repeat the course in a later regular semester without taking a course as Self-study.

(c) Academic standards must be rigorously maintained in the self-study mode. A request for the Self-study option must be in the prescribed form available in the Academic Office.

(d) The registration, examination, etc., will be as per the academic calendar. The evaluation for self-study will be done in the same way as for normal semester courses (i.e., 50% for in-semester performance and 50% for end-semester performance).

**5.9 Summer Courses**

The summer course facility provides the opportunity for students to clear their backlogs by re-doing courses with adequate rigor, provided they are offered. The following guidelines apply to summer courses:

- A minimum of 5 students should register for a course, and the faculty concerned should also agree to run the course in the summer.

- A student is not permitted to register for more than 18 credits during any one summer term. Students are also not allowed to re-register for courses for which they have already obtained a pass grade or "PP."

- The registration, examination, etc., will be as per the academic calendar, and the evaluation will be done in the same way as for normal semester courses (i.e., 50% for in-semester performance and 50% for end-semester performance).

**5.10 Change of Branch**

Students are eligible to apply for a change of branch or program after completing the first two semesters. The following rules and guidelines are used for considering their applications for change:

1. Registered students will be permitted to apply for a change of branch without any constraints.

2. For other students, change will be permitted strictly on a merit basis. Students without fail grades and backlogs and with a CPI of 6.5 or higher will be eligible to apply and can give their choices.

3. The request for change (in the order of merit) for student S1 from department A to department B will be considered if:

(a) The strength of department B does not exceed the sanctioned strength.

(b) The number of students on the roll in department A does not fall below 85% of the sanctioned strength.

(c) The request of S1 will be reconsidered (again in the order of merit) if S1 does not violate condition (b) above due to another student getting transferred to department A.

4. If student S1 is not permitted to change from department A to B (due to condition (b) above), any other student S2 with a CPI less than S1 will also not be permitted to change to department B.

5. The requests for a change of Branch/Programme from students belonging to SC/ST category may be considered as special cases by the Chairman of the Senate on merit.

6. All such transfers can be effected only once at the beginning of the second academic year. No application for a change of Branch/Programme during the subsequent academic years will be entertained.

**6. Seminars / Projects**

The project is a course requirement where, under the guidance of a faculty member, a final-year student is required to undertake innovative work that applies the knowledge acquired during various courses and labs in the earlier years. The project work involves conducting a literature survey, carrying out development and/or experimentation, and showcasing both analytical and practical skills.

The student is expected to do the project under the guidance of a faculty member from the same department unless specifically permitted by the Department Coordinator or Faculty Advisor for alternate arrangements. The B. Tech project is structured as follows:

- The B. Tech project is conducted in the final year and is divided into two stages, with the first stage usually completed in the Autumn Semester and the second stage in the subsequent Spring semester.

- The project carries a total of 20 credits (5 credits for the first stage and 15 credits for the second stage).

Every student must undertake Seminars/Projects of professional interest as per the department's requirements. These projects can involve theoretical analysis, experimental investigation, prototype design, new correlation and data analysis, fabrication, and setup of new equipment, or a combination of some of these. The final project report should be submitted by the prescribed date, usually three weeks before the end of the final semester. The report is evaluated by a panel of examiners consisting of the Chairman, External Examiner, Internal Examiner, Guide, and Co-guide (if applicable). An oral examination is conducted after the semester-end examination. The assessment of the project work is done based on the following criteria:

- The preliminary presentation (1st stage) carries 25% of the total weightage.

- Another 25% weightage is given for the initiative, interest, effort, and regularity shown by the student during the project work.

- The remaining 50% weightage is assigned to the oral examination conducted by the Panel of Examiners.

Program-specific details are outlined below.

**6.1 B.Tech. Project**

**(a) Timing and Evaluation:**

(i) The project topic will be assigned by the end of the previous semester.

(ii) Evaluation of the project will be carried out by the department at their convenience, allowing for a minimum of 10 weeks of work during the semester.

**(b) Project Evaluation Rules:**

i. Each stage of the project will be evaluated separately and graded.

ii. The project guide must ensure that the work carried out by the student is adequate before giving approval for the submission of the project report for evaluation.

iii. The guide may award an 'XX' grade if the student has been irregular in interactions and work. A student is expected to have at least one meeting every week with the guide.

iv. In special situations, such as prolonged health problems or delays in obtaining facilities, the guide may recommend to SUGC (through PUGC) an extension of up to one month for submission and evaluation without any grade penalty.

v. The examination panel, consisting of the Chairman, Internal Examiner, Guide, and Co-Guide, may award a fail grade (FF or FR) for poor performance and/or inadequate work. In the case of an FF, the student can appear again after one month by submitting a fresh report, with the maximum possible grade restricted to DD, as in the case of courses.

vi. In the case of DX and FR grades, the student will be required to register afresh for the stage. Summer registration may be permitted for students with an FR grade on a case-by-case basis, based on justified recommendations of PUGC. However, summer registration is not permissible in the case of DX grade.

vii. An II grade may be awarded if the student misses the evaluation on medical grounds. In such cases, a re-examination will be held within one month.

viii. In cases of delayed project submission, other than those mentioned in (iv) above, the maximum permissible grade is BC.

ix. Students who do not submit the project in time and do not submit the project report for assessment by the due date will be temporarily awarded an 'II' grade at the time of finalizing grades for all other students. The 'II' grade will be converted to a performance grade not higher than BC when these students submit their reports, although late, and undergo the oral examination. Students submitting their project reports late will only be entitled to the grades BC, CC, CD, DD, and FF after the oral assessment. If such late reports are not submitted within a reasonable period (by the end of the Summer Semester), the 'II' grade will be automatically converted to 'FF'.

**7. Internship**

In order to enhance the industry-academic partnership and improve placement opportunities for IIT Goa, students will have to undertake a 6-month internship in an industry or research lab. The internship will be offered to students based on department recommendations, and the coursework can be adjusted to make the 7th semester available for the internship. Students not interested in an industrial internship or those who did not receive any internships will work on an academic project within the institute.

To ensure the scientific quality of internships and to facilitate uniform grading, an internship advisory committee will be formed for each department. During the selection process, companies are expected to provide details of the project and student duties. After selection, a guide from both IIT Goa and the industry will be allotted. The faculty guide will interact with the industry counterparts to continuously monitor progress. At the end of the internship period, each student must submit a project report and make a presentation to the department-specific evaluation committee. Grades will be given based on the quality of the report and presentation, as well as feedback from the industry supervisor.

**8.0 Performance Requirements**

**8.1 Award of Degree:**

To be awarded a B.Tech. Degree, a student must fulfill the following requirements:

a) Pass all the prescribed courses under the general institutional and departmental requirements.

b) Satisfactorily fulfill other academic requirements, including practical training, NSO, work visits, seminars, and the project.

c) Pay all Institute dues.

d) Have no record of indiscipline.

The final degree certificate will not mention any class or ranking.

**8.2 Award of Medals:**

Various medals are awarded to outstanding students from among the graduates receiving their degree at the annual convocation:

- The President of India Medal / The Institute Gold Medal is awarded to the most outstanding student in the Undergraduate B.Tech. program admitted through JEE.

- The Institute Silver Medal is awarded to the most outstanding graduate in each branch of Engineering other than the one to which the recipient of the President of India Medal and the Institute Gold Medal belongs.

**8.3 Minimum Semester Performance:**

There is no minimum Cumulative Performance Index (CPI) requirement for the award of the B.Tech. degree. However, students with a CPI less than 5.00 may have their eligibility for degree awarding subject to approval by the Chairman, Senate. Such cases will be reported to the Senate.

**8.4 Slow Track Option:**

Students with up to four backlogs (FR/DX) at the end of the first and second years may opt for a slow-track program, which allows them to complete the degree requirements over a longer-than-normal duration. The performance of such students should be monitored on a semester basis, and necessary program corrections should be made. Students with FR/DX grades in up to four courses are advised to consider the slow-track option in consultation with their faculty advisers.

**8.5 Residency Requirements (Maximum Period for Completion of Program):**

Students must fulfill the requirements for their respective degrees within the maximum period specified for each program. For the B.Tech. program, the maximum period is twelve semesters (six years). Failure to do so may lead to a referral to the Senate for dismissal.

**8.6 Termination Criteria:**

Academic performance is reviewed by the Student Undergraduate Academic Committee (SUGC) or Student Postgraduate Academic Committee (SPGC) at the end of each regular semester. The criteria for placing students on Warning, Academic Probation, and Programme Termination are as follows:

- Condition I: Students will be placed on Warning or Academic Probation in the next semester if Q ≤ (2/3)P, where Q is the total number of credits earned up to the current semester, and P is the total number of credits required for the degree.

- Condition II: Students will be placed on Warning or Academic Probation in the next semester if S ≤ 0.5R, where S is the total number of credits earned in the last semester, and R is the total number of credits registered in the last semester.

A student on Warning or Academic Probation must sign an undertaking, adhere to specific conditions, and not hold any office in the Hall of Residence, Students Gymkhana, or any other organization/body. If the student cannot meet these conditions due to genuine reasons, they must explain this before the semester ends.

**Appeal Against Termination:**

Students whose programs are terminated may appeal to the Chairman, Senate, for reinstatement. The Senate will take a final decision after considering all available inputs, and a student may re-appeal if new, substantial information is available.

**9. Miscellaneous**

**9.1 Helping Weaker Students:**

- Students with backlogs will be required to register manually, which involves meetings and discussions with faculty advisers.

- Students with backlogs should continuously seek help from faculty advisers and student counselors.

- The Institute will communicate the performance of students with backlogs to their parents/guardians on a semester-wise or annual basis to keep them informed.

- It is expected that guardians of students with backlogs will maintain constant contact with faculty advisers, the concerned Head of the Department, and the student counselor.

**9.2 Faculty Adviser:**

- Upon joining the Institute, students are assigned a Faculty Adviser who provides guidance on academic matters and course selection for various semesters and summer terms.

- Faculty Advisers play an important role in guiding students through their academic journey and addressing performance-related issues.

- The Faculty Adviser:

1. Provides guidance about the rules and regulations governing the courses of study for a particular degree.

2. Registers students for courses in line with the advice given by the Senate Undergraduate Committee (SUGC).

3. Is authorized to permit students to drop/adjust one or more courses for which they have registered.

4. Pays special attention to weak students.

5. Develops revised study plans for weak/bright students based on their semester performance.

6. Suggests modalities for course/credit requirements for students recommended for exchange programs.

7. Provides guidance and liaises with parents of students regarding their academic performances.

**9.3 Academic Calendar:**

- The academic activities of the Institute are regulated by the Academic Calendar approved by the Senate.

- The Academic Calendar is made available in both printed and electronic forms to students, faculty members, and all other stakeholders.

- Strict adherence to the academic calendar for completing academic activities is mandatory for students and faculty.

Here is the glossary of terms used in the document:

- **PUGC:** Programme Undergraduate Committee

- **SUGC:** Senate Undergraduate Committee

- **CRF:** Course Registration Form

- **CAF:** Course Adjustment Form

- **FA:** Faculty Adviser

- **Course List:** List of students registered for a course

- **Semester:** Approximately 16 weeks' duration, including Autumn Semester (last week of July to the last week of November) and Spring Semester (first week of January to the last week of April).

- **Summer Term:** Approximately 8 weeks' duration (first week of May to the first week of July) primarily for students to clear backlog lecture and laboratory courses.

- **Course Credit (C)**: Weighted sum of the number of Lecture hours (L), Tutorial hours (T), and Practical hours (P) associated with the course.

- **Registration:** The total course credits for which a student has registered during a semester.

- **Semester Credits:** The sum of credits of courses registered by the student in a semester.

- **Credits Earned:** The sum of course credits for Credit courses in which a student has passed in a semester.

- **Grade:** Qualitative assessment of the student's performance in a course indicated by letters (AP, AA, AB, BB, BC, CC, CD, DD, FF, FR, DX, II, PP, or NP). DX or FR indicates that the student has to repeat the course. DR indicates a course dropped.

- **Grade Point:** Number equivalent of the letter grades (ranging from 10 to 0), corresponding to different grade letters. Zero grade points for FF, FR, and DX. II, PP, and NP do not carry any grade points.

- **Instructor:** Member of faculty who teaches courses/labs.

- **Poor:** Less than 30% in the in-semester performance.

- **Very Poor:** Less than 20% in the in-semester performance.

- **Semester Grade Points:** The sum of the products of credits and Grade Points for each course registered by a student in a semester.

- **SPI:** Semester Performance Index, obtained by dividing the Semester Grade Points by the Semester Credits.

- **Cumulative Credits:** Sum of the Semester Credits for all the semesters, excluding credits of alternative courses taken in lieu of others.

- **Cumulative Grade Points:** Sum of the Semester Grade Points for all the semesters, excluding credits of alternative courses taken in lieu of others.

- **CPI:** Cumulative Performance Index, obtained by dividing the Cumulative Grade Points by the Cumulative Credits.