Ph.D. Rules and Regulations

IIT Goa's Ph.D. program, introduced in the academic year 2018-19, offers an extensive array of research opportunities in Engineering, Science, Humanities, and Social Sciences. The core objectives of our Ph.D. program are to remain at the forefront of knowledge expansion and to provide research training that aligns with the current technical, scientific, social, and economic goals of the nation. The program is comprehensive, including coursework and a research thesis, and encourages interdisciplinary research through collaborative activities.

Our dedicated faculty, with a strong research focus, provides exceptional opportunities for Ph.D. candidates. We actively engage in sponsored research and development projects from a wide range of public and private organizations. Our world-class research facilities are accessible in all departments and schools of Science, Engineering, Humanities, and Social Sciences. In addition to department-specific resources, Ph.D. scholars can utilize central facilities available Institute-wide.

Throughout the year, we host numerous departmental and Institute-level seminars, featuring distinguished scientists and engineers from India and abroad. They deliver lectures and engage in discussions with our research groups, providing a stimulating environment for Ph.D. students to pursue their research endeavors.

The following are key extracts from the Rules and Regulations governing our Ph.D. program:

\*\*Eligibility for Admission R.1\*\*

a) A Ph.D. student will be considered eligible for Ph.D. registration by the Senate upon applying using the prescribed form, provided they hold an M.Tech/ME/M.Sc. degree (for Engineering) or an equivalent qualification earned through examination.

\*\*R. 2\*\*

a) The award of a Ph.D. degree is contingent upon the following conditions:

i) All Ph.D. students must engage in research work under the guidance of Supervisor(s) for a minimum of two years from the date of their registration.

ii) The thesis submitted by the Ph.D. student must be recommended for the Ph.D. degree by two external referees (one Indian and one foreigner), in addition to evaluation by the Board of Examiners during the viva voce examination.

iii) While the provisions in R.2 (a) are in place, Ph.D. students may be allowed to conduct part or all of their research work outside the Institute, in facilities like factories, laboratories, workshops, worksites, or other research centers duly approved for this purpose by the Institute.

\*\*R.3\*\*

The Ph.D. degree shall not be awarded as an ad eundem degree, meaning it will not be conferred upon someone whose actual research work was carried out elsewhere. Ph.D. students are required to spend a minimum stipulated time at the Institute to be eligible for the Ph.D. degree.

\*\*R.4\*\*

Notwithstanding the provisions of R.1, the Senate will evaluate the registration for the Ph.D. degree of a Ph.D. student who holds a B.Tech./M.Sc./M.A. degree or an equivalent qualification obtained through examination in a subject duly approved by the Senate. Such students must have successfully completed the minimum prescribed credit requirements under an approved program of study.

\*\*R.5\*\*

Research Assistants, Teaching Assistants, or any other duly approved category of Institute Staff may register for the Ph.D. degree under the provisions outlined in R.1, which includes Part-Time, Self-Finance, or Sponsored categories as specified in the table.

\*\*Registration\*\*

a. Upon joining the Institute, every Ph.D. student must plan their academic program in consultation with a Supervisor from the academic Unit (Department/School/Centre) to which they are admitted. Details of the academic requirements and available courses will be provided in a bulletin, which will be made available in due course.

b. Registration for each semester is conducted through the Registration program. It is mandatory for all Ph.D. students to complete their registration on the prescribed dates, as announced from time to time. Every Ph.D. student is required to register in each semester until they successfully complete the program.

c. Prior to registration, all Ph.D. students must settle their Institute and Hostel dues.

d. IIT Goa follows a semester system, and as such, registration at the beginning of each semester is mandatory for all Ph.D. students until they complete their program of study. Failure to register for a particular semester without prior permission from the Doctoral Committee (referred to as DC hereafter) will result in the student ceasing to be a Ph.D. student, and their admission may be canceled. Additionally, if a Ph.D. student fails to register for two consecutive regular semesters, the DC may cancel their admission suo moto (on its own motion).

e. The Supervisor is authorized to handle course registration and adjustments, as specified later.

f. In consultation with the Supervisor, Ph.D. students are typically allowed to register for a maximum of TWO Audit courses per semester, subject to the consent of the Ph.D. Supervisor and/or the Convener of the relevant Academic Unit. The registration for audit courses should be done in consultation with the Faculty Advisory Group/Supervisor, concurrently with the credit courses.

g. Ph.D. students are not allowed to re-register for a course they have previously completed, especially if they have earned grades of AU, DD, or higher.

h. If a Ph.D. student concurrently registers for a postgraduate degree at another institution, they will be automatically deregistered at the Institute.

i. Registration will be confirmed only after the Ph.D. students submit their final year mark sheets or provisional certificates for their qualifying degree.

i. When admitted in the Autumn/Spring Semester of a given academic year, Ph.D. students should ordinarily submit their certificates within the Academic Calendar.

ii. Ph.D. students who are unable to submit their certificates within the prescribed time frame in the Academic Calendar should apply for an extension, along with an undertaking that states the due date for submission and provides valid reasons, using a prescribed form developed for this purpose.

iii. Even if a Ph.D. student does not submit the certificate until the commencement of the Semester-end examination, they will be allowed to participate in the examination. However, the results of such a Ph.D. student will be withheld until the required documents are produced.

iv. Cases of Ph.D. students who fail to submit their certificates after the first semester will be reported to the DC and the Chairman of the Senate for further consideration and potential actions.

\*\*Course Adjustments\*\*

Within the time frame specified in the Academic Calendar, Ph.D. students have the option to substitute one or more courses with others. To do this, the Ph.D. student must carry out Course Adjustments in consultation with their Faculty Advisory Group.

\*\*6. Admission\*\*

\*\*R. 6.1: Admission Categories\*\*

Ph.D. student Status: The status of Ph.D. students admitted to the Ph.D. program will be classified under one of the following categories:

A. Fulltime Ph.D. student

i) Teaching Assistantship (TA)

ii) Teaching Assistantship through Project (TAP)

iii) Government/Semi-Government Fellowship Award (FA) (QIP, CSIR-JRF, UGC-JRF, DAE, DST-INSPIRE, DBT, NBHM, etc.)

iv) Sponsored/Self-Financed

For more details regarding the above categories, please refer to the Ph.D. information brochure on the Institute website.

B. Part-time Ph.D. student

- Teacher

- External

\*\*R.6.2: Registration/Temporary Withdrawal from/Leaving the Programme\*\*

a) If a Ph.D. student leaves the program at any time within the first two years without prior permission from the Senate, they will forfeit their Ph.D. student status.

b) If a Ph.D. student withdraws from the Ph.D. program at any time without intimation (within the first two years) after admission, their Ph.D. student status will cease, and they will not be readmitted with any credit for the acquired credits during their period of stay.

c) In case a Ph.D. student wishes to withdraw from registration with the prior permission of the Supervisor/DPGC/CS, they may do so only after a period of two years from the date of Confirmation of Registration with prior permission from the Chairman of the Senate. The application for temporary withdrawal must be endorsed by the Ph.D. Supervisor(s) and the RC of the Institute. Temporary withdrawal can be granted for up to one year (two semesters) initially. An extension of the duration of withdrawal beyond one year will not be encouraged and may only be granted by the Senate on the recommendation of the RC under genuinely extraordinary circumstances. The period of temporary withdrawal will not be counted when considering the number of completed semesters of Ph.D. registration by the Ph.D. student.

\*\*7. Eligibility for Admission\*\*

\*\*R.7.1: Minimum Qualification for Admission (General eligibility criterion for Admission in all Academic Units).\*\*

For detailed information on the minimum qualification for admission, please refer to the Ph.D. Information Brochure available on the Institute Portal (http://iitgoa.ac.in/phdadmission.php).

\*\*b) Award of M.Phil. Degree to the Ph.D. students from Science and Social Science Stream\*\*

An Ph.D. student who has earned 34 credits through coursework during the Ph.D. Program may be permitted to register for the M.Phil./MS (R) Program. This option is available in the Departments of Physics, Chemistry, Mathematics, and Humanities & Social Sciences. To obtain an M.Phil./MS (R) degree, the Ph.D. student must successfully complete one year of project work leading to the dissertation.

\*\*c) Award of M.S. by Research to the Ph.D. Ph.D. students from the Engineering Stream\*\*

A student pursuing the Ph.D. Program in an Engineering discipline and who has successfully completed the minimum credit requirement of coursework may be permitted to register for the M.S. Program by Research leading to a dissertation. The total duration of the M.S. Program will be 2-3 years.

\*\*Procedures for Exit option from Ph.D. Program to M.S. By Research\*\*

1. If the Doctoral Committee (DC) decides to recommend discontinuation of Ph.D. with an option of conversion to M.S. (Research), the Ph.D. student will be informed accordingly.

2. The Ph.D. student should apply for conversion within a month, along with a work plan and proposed timelines for the completion of M.S. (Research) / M. Phil degree, through the Supervisor.

3. If the Ph.D. student applies, and the work plan and timelines are approved by the DC, then the Ph.D. is discontinued and converted to M.S. (Research).

4. If no response is received by the Ph.D. student within a month from the DC, the DC may recommend discontinuation of the Ph.D. without the option of conversion to M.S. (Research).

\*\*Procedures for Evaluation of the M.S. Thesis\*\*

1. The M.S. by research theses shall be sent to only one referee out of 2 or 4 referees.

2. On receipt of a favorable report (i.e., 'a' or 'b') from the referee and comments of the supervisor/Internal Examiner, permit the Ph.D. student to appear in the viva-voce examination. Only one review by an external examiner shall be considered for holding the M.S. by research viva-voce.

3. However, if the examiner recommends minor modifications in the thesis (i.e., 'c'), the viva-voce can be held only after the Internal Examiner certifies that the changes have been carried out.

4. If the referee recommends major revisions in the thesis (i.e., 'd'), the revised thesis should be submitted within 6 months after incorporating the revisions to the satisfaction of the supervisors and internal examiner. This will then be sent for further review.

5. If the referee recommends rejection (i.e., 'e'), an option of a second referee will be sought.

6. If the second referee also recommends the rejection of the thesis, the thesis in the current form is rejected. In such a case, a new thesis may be submitted only once for review, after 1 year and not later than 2 years from the date of intimation by the RC.

\*\*R.7.2: Concurrent registration of any PG degree at another Organization by any Ph.D. student\*\*

Any Ph.D. student who concurrently registers for any Ph.D. at another organization shall be automatically deregistered at the Institute.

\*\*8. Pattern of Courses and Credits\*\*

The Ph.D. Program offers a variety of courses, including Lecture Courses, Laboratory Courses, Design Courses, Seminars, and Communication skills-related courses.

\*\*R.8.1: Course Credit Structure\*\*

Course credits are determined based on the total contact hours and self-study hours associated with the course. The specific credit values for available courses can be found in the Courses of Study available on the Dean AP's webpage. Ph.D. students can also receive credits for courses from NPTEL or MOOC under special circumstances with approval from the Chairman of the Senate.

\*\*R.8.2: Credit Seminar\*\*

A Seminar must meet the following criteria:

a) Each seminar carries four credits.

b) Seminars are considered as courses for registration and evaluation.

c) The Seminar coordinator, appointed by the Departmental Committee (DC), organizes seminars and submits the grades awarded by panels of examiners to the Academic Office by the end of the semester.

d) A Ph.D. student can take a maximum of two Seminars during the entire Ph.D. Program.

\*\*R.8.3 Communication Skills I & II courses (PP/NP course)\*\*

a) These courses are mandatory for all Ph.D. students.

1. Ph.D. students are generally required to complete the Communication Skills course within the first year.

2. These courses are in addition to the minimum course credit requirements set by the DC.

b) Exemptions from the Communication Skills course may be granted to Ph.D. students who have completed a qualifying degree program with a Communication Skills course at an IIT. This exemption is applicable only if the Communication Skills course was completed within the five years before joining the Ph.D. program.

\*\*R.8.4 Requirement of the Number of Students in a Semester\*\*

(Note: This section requires revision and specific information is not available.)

\*\*9. Course Credit Requirements and Registration for Courses\*\*

All Ph.D. students in the Ph.D. program are required to obtain the specified credits through coursework, which should typically be completed as follows:

a) Ph.D. students with M.Tech./M.Sc. or equivalent qualification must complete the credit requirements within one year of joining.

b) Ph.D. students with B.Tech./M.S./M.A./M.Sc. or equivalent qualification should complete the credit requirements within the first two semesters of joining. An extension may be granted with permission from the Chairman of the Senate if needed.

Ph.D. students may take additional credit courses if necessary.

\*\*R.9.1: Applicable to Ph.D. students with M.Tech. or equivalent degree\*\*

a) Ph.D. students with M.Tech./M.Phil. or equivalent qualification must complete a minimum of 16 credits, which includes 2 courses and a seminar, and a maximum of 22 credits. These courses can be taken from any academic unit in the Institute (Department/School/Centre).

b) Ph.D. students can earn up to a maximum of 4 credits through seminars.

c) Ph.D. students with an M.Tech. degree must also complete at least two M.Tech./Ph.D. level courses in addition to the Seminar requirements.

d) Ph.D. students can earn a maximum of 6 credits through online NPTEL or MOOC courses.

\*\*R.9.2: Applicable to Ph.D. students with M.Sc./M.A. or equivalent degree in Science\*\*

a) Ph.D. students with M.Sc./M.A. or equivalent qualification in Science admitted to a Science Department/School must complete 34 to 46 credits, and 16 credits for Humanities and Social Sciences (HSS). These credits can be taken from any academic unit (department/school/centre) in the Institute.

b) Credits acquired through postgraduate-level courses should be 24 or more (minimum 4 courses).

c) Ph.D. students can earn a maximum of 8 credits through Seminars, which should be spread over two semesters.

\*\*R.9.3: Applicable to Ph.D. students with B.Tech or equivalent degree and M.Sc. or equivalent degree in Engineering\*\*

a) Ph.D. students with B.Tech or equivalent qualification or M.Sc. degree or equivalent qualification admitted to the Ph.D. program in any Engineering discipline must complete 44 to 56 credits.

b) Ph.D. students can earn up to a maximum of 8 credits through Seminars, which should be spread over two semesters.

c) A minimum of 3 postgraduate-level courses should be completed for credit requirements.

\*\*R.9.4: Minimum/Maximum Course Credit Registration in a Semester\*\*

Fulltime Ph.D. students must register for not less than 18 credits in the first semester if the total credits required are 18 or more. Other Ph.D. students with credit requirements below 18 credits shall register for the entire prescribed credits in the first semester.

\*\*R.9.5: Extension for Commencement of Coursework\*\*

Ph.D. students unable to start their coursework in the semester they were admitted should obtain permission from DC/DPGC/CS to commence their coursework in the following semester.

\*\*R.9.6: Course Registration Procedure\*\*

a) Ph.D. students, after paying the prescribed semester fees, complete their registration online in consultation with their Supervisor(s) and the academic unit, with their Supervisor's approval.

b) Ph.D. students, in consultation with their Supervisor, can make course adjustments within the specified time limit according to the Academic Calendar.

c) The DC finalizes the course program of Ph.D. students in consultation with the Supervisor(s).

d) Any recommendations to reduce course credits are sent to the RC in the beginning of the I or II semester along with the registration applications for approval.

e) The Academic Office informs the DC of any discrepancies in registration. However, Ph.D. students must ensure they meet the credit requirements independently.

f) The DPGC approves the course programs of all Ph.D. students after careful examination.

\*\*R.9.9: Adjustment of Course(s)\*\*

Ph.D. students can add one or more courses that were not registered for earlier or substitute courses with others by completing the Course Adjustment Form within the first two weeks from the start of classes, provided the course credit requirements remain unchanged.

\*\*R.9.10: Dropping of Course(s)\*\*

Ph.D. students may drop courses they have registered for if they find their academic load to be too heavy. This can be done until the date specified in the academic calendar, as long as it doesn't violate the credit requirements.

\*\*R.9.11: Duration for Dropping of Course(s)\*\*

The last date for dropping a course is two weeks after the mid-semester examination for semester-long courses and one week after the mid-semester examination for half-semester courses, as per the Academic Calendar.

(Note: The Ph.D. student should complete the prescribed Course Adjustment Form (CAF) and Course Dropping Form (CDF) in consultation with the Supervisor.)

\*\*R.9.13: Grade Improvement\*\*

1. Ph.D. students in a Ph.D. Program where the minimum CPI for coursework is 6.0 are eligible to repeat/replace a course for grade improvement if their CPI is less than 6.0 and they have been permitted by the DC to continue in the program on Academic Probation.

2. For grade improvement, Ph.D. students must re-register in the course in a subsequent semester if the course is offered. The grade obtained in the re-registered course will replace the earlier grade in the Semester Grade Card and the Final Transcript.

3. This option for grade improvement is available for only TWO (02) courses in the program and only ONCE for a specific course.

\*\*10. Course Assessment and Award of Grades\*\*

\*\*R.10.1: Grade Points\*\*

For every course taken by a Ph.D. student, grades are assigned based on their performance in all assessments. These grades correspond to grade points as follows:

- AA (10 points)

- AB (9 points)

- BB (8 points)

- BC (7 points)

- CC (6 points)

- CD (5 points)

- DD (4 points)

- FF (0 points)

- FR (0 points)

- PP (Passed, 0 points)

- NP (not Passed, 0 points)

- AU (Passed, 0 points)

- DX (0 points)

The minimum passing grade for all UG and PG courses is 'DD'. However, PG Ph.D. students should achieve a minimum CPI of 6.00 at the end of each semester. All grades, including FR, DX, etc., will be mentioned in the transcript.

\*\*R.10.2: Failure Grades\*\*

The letter grades FF and FR are considered failure grades. Re-examination may be allowed for a course in which an Ph.D. student receives an FF grade. If the Ph.D. student passes the re-examination, they will be awarded the maximum grade of 'DD' in that course. If they do not take or fail the re-examination, they will receive the grade FR.

The FR grade is given when, in the opinion of the Instructor (or panel of examiners in the case of projects), the Ph.D. student has inadequate academic exposure to the course or has performed poorly in in-semester and/or end-semester examinations.

If an Ph.D. student receives a FR grade for a core subject, they must re-register for the same course. If the course is an elective, they may register for an alternative course without it being counted as an additional course.

An Ph.D. student who receives a fail grade in a course more than once will have the grade points/credits counted only once in the numerator and denominator for the purpose of SPI/CPI calculations.

\*\*R.10.2.1: 'FR' grade for Academic Malpractice\*\*

'FR' grade may also be awarded for academic malpractice. Details regarding academic malpractice are available on the institute's website. Academic malpractices are dealt with severely following IIT Goa's norms.

\*\*R.10.3: Re-examination in a Course\*\*

An Ph.D. student will be allowed to take a re-examination for a course in which they receive an FF grade, provided the number of failed backlog courses (with FR grade) does not exceed the limit set, which is at most two during the entire program.

\*\*R.10.4: Audit Course\*\*

Ph.D. students registered for auditing a course will receive the grade AU if they meet the requirement of a minimum of 80% attendance and satisfactory in-semester performance as determined by the Instructor. If the Ph.D. student doesn't qualify for the grade AU, it will be assumed that they have dropped the course, and the semester grade card will be issued accordingly.

\*\*R.10.5: Additional Learning\*\*

Ph.D. students have the option to take a course as 'Additional Learning.' These courses are in addition to the minimum course credit requirement and do not affect the SPI/CPI. However, the actual grades obtained will be shown in the grade card and transcript. Changing the type of a course is allowed only once, and registration for additional courses requires the approval of the Supervisor/DPGC. The option to permit Ph.D. students to register for a course as 'Audit' is left to the course instructor.

\*\*R.10.6: I Grade (Incomplete)\*\*

An 'I' grade is awarded to a Ph.D. student in a lecture or laboratory course if they have satisfactory in-semester performance, met the attendance requirement, but have not appeared for the semester-end examination. The Ph.D. student will be eligible for a makeup for the semester-end examination if the absence was due to medical reasons or extraordinary circumstances. To apply for a re-examination, the Ph.D. student must contact the Academic Office. If the absence was due to medical reasons, a medical certificate from IIT Goa Hospital is required. For extraordinary circumstances, supporting documents must be submitted. The Academic Office will decide whether a re-examination is allowed after consulting with the RC (for medical reasons) and Dean AP (for extraordinary circumstances). If a re-examination is allowed, the instructor will determine the final grade based on the sum of in-semester and re-examination marks, with the weightage of the re-examination being the same as the final examination that the Ph.D. student missed. In all other cases, the 'I' grade will be converted to an 'FR' grade.

\*\*R.10.7: Seminar Grades\*\*

For Ph.D. students who have submitted their seminar report on time but have not had their evaluation completed in time, the Seminar Coordinator will award the grade 'I'. These 'I' grades will be converted to 'FR' letter grades within one month following the end of the semester.

\*\*R.10.8: Non-submission of Seminar Report/Absent for Presentation\*\*

Ph.D. students who either do not submit their seminar report by the prescribed date or are absent for their presentation on the scheduled date will be awarded an 'FF' grade, unless they are given an extension by the DC under exceptional circumstances.

\*\*R.10.9: Award of Grades in Seminar after obtaining 'FF' in Earlier Presentation\*\*

Ph.D. students who receive an 'FF' grade in the seminar will be allowed to complete the evaluation during the period earmarked for re-examination and will not be given a grade better than the minimum passing grade, 'DD'.

\*\*R.10.10: Class Attendance Rules\*\*

- A minimum of 80% attendance is mandatory in all classes.

- The instructor may decide the attendance rule and announce it at the beginning of the course. This may involve giving a percentage weight in the Ph.D. student's performance evaluation for attendance and/or class participation. Penalties related to attendance and/or class participation should affect only this component of the Ph.D. student's performance evaluation.

- The percentage weight for the 'Class Participation' component should range from 0 to 20 percent.

- Deregistration from courses may occur for Ph.D. students who are absent in any one of the first three lectures.

\*\*R.11.1: Required to maintain a minimum CPI of 6.00 at the end of each Semester\*\*

The Ph.D. student's performance in a semester is evaluated through the Semester Performance Index (SPI), which is a weighted average of the grade points obtained in all the courses taken during that semester. The SPI is calculated using the final grades awarded. The Cumulative Performance Index (CPI) is a similar weighted average but considers the entire duration of the Ph.D. program.

\*\*R.11.2: For Ph.D. students with credit requirement of 16 to 22 credits\*\*

i) In the first semester, if an Ph.D. student fails in only one course with an FF grade, they are allowed to have a re-examination in that course. More than one FF grade or an FR grade disqualifies them from re-examination.

ii) The credit requirement should normally be completed by the end of the first semester, but it can be extended beyond the first semester if additional courses have been prescribed.

\*\*R.11.3: For Ph.D. students with credit requirement of more than 22 credits\*\*

i) Ph.D. students must not obtain an FR grade for more than one course during their entire course program, or they will be required to leave the program.

ii) If a Ph.D. student fails in only one course during a semester and receives an FF grade and has not obtained an FF or FR grade in the first semester, they can have a re-examination in that course at the end of the semester. However, obtaining more than one failure grade will disqualify them from re-examination.

iii) If an Ph.D. student fails in only one course during a semester and receives an FR grade (after any re-examination), and has not obtained an FF or FR grade in an earlier semester, they will need to register for the same course or an alternative course in the next semester, as prescribed by the DPGC.

iv) The credit requirement should normally be completed by the end of the second semester.

\*\*R.11.4: Ph.D. students who obtain FF/FR grades as enumerated in R.11.2 & 11.3\*\*

Ph.D. students who do not meet the requirements outlined in R.11.2 and R.11.3 are subject to discontinuation from their Ph.D. program. The DPGC will review the cases of such Ph.D. students and make a decision accordingly.

\*\*R.11.5: Compulsory requirement for Confirmation of Ph.D. Registration\*\*

Some academic units may have qualifying examinations for Ph.D. students. These exams must be successfully completed before confirming the Ph.D. registration. Ph.D. students need to qualify in these comprehensive exams and obtain a letter grade.

\*\*R.11.6: Confirmation of Registration\*\*

Ph.D. students who successfully complete their course credit requirements in one or two semesters will be granted registration from the beginning of the semester in which they complete these requirements or from the date of joining the program, whichever is later.

\*\*R.11.7: Additional courses after the confirmation of Registration\*\*

Ph.D. students may be allowed to register for extra credit courses after their registration is confirmed. However, they must meet certain criteria such as maintaining an SPI/CPI above 6.00, among others. The existing procedure for confirmation of registration will continue, and no extensions of registration will be considered due to the registration for extra credit courses.

\*\*R.11.8: Confirmation of Ph.D. Registration Date\*\*

The registration dates for all Ph.D. students will be decided by the DC (Departmental Committee), and the final approval will be granted by the Senate.

\*\*R.11.9: Confirmation procedure\*\*

The procedure for confirming Ph.D. registration involves the Ph.D. student applying for confirmation upon completing course requirements and qualifying examinations prescribed by the RC (Research Committee). The RC will consider the application and confirm the registration date according to the applicable rules.

\*\*R.11.10: Academic Probation for Ph.D. students with lower SPI/CPI\*\*

For Ph.D. students who are identified as ineligible for continuation of their Ph.D. program due to marginally lower SPI/CPI than the minimum required, there is an opportunity for academic probation:

a) RC may offer academic probation directly to eligible Ph.D. students, and the necessary declarations from the students will be taken as required, after granting probation.

b) In cases where DC does not offer probation to a student, an appeal can be made for probation to DPGC (Departmental Postgraduate Committee), which DC will consider on a case-by-case basis.

c) Academic probation is a one-time exercise for one semester and is decided by DC in consultation with the Faculty Advisor/Supervisor.

d) During the Academic Probation Semester, Ph.D. students must obtain an SPI that raises their course work CPI to greater than or equal to 6.0 immediately (excluding the dissertation/project work) when including the performance of the probation semester.

e) Ph.D. students under academic probation may continue to receive Teaching Assistantship at the applicable rate. However, they will not be assigned teaching duties to allow them to focus on improving their academic performance. These students may be expected to pay non-concessional fees during the probation period.

\*\*R.12.1: Selection of Research topics, areas of Research\*\*

Applicants for the Ph.D. program will be provided with details of various research topics and areas proposed by faculty members within each Department/School/Centre. Applicants can discuss these topic areas with respective faculty members and then submit a supervisor selection form. Applicants will be interviewed by a committee appointed by the Research Committee (RC).

\*\*R.12.2: Assignment of Research Supervisor\*\*

The specific research area and research program for a selected Ph.D. student will be finalized by their Supervisor(s) after mutual discussion. All research scholars should be assigned to a Research Supervisor(s) at the time of registration confirmation.

\*\*R.12.3: Change of Research Supervisor\*\*

a) Change of Supervisor(s) under exceptional circumstances will be allowed upon the recommendation of the DC/DPGC (Departmental Postgraduate Committee), provided consent is obtained from the Ph.D. student, the current Supervisor(s), and the proposed Supervisor(s).

b) If the research program or the research area requires modification due to this change, the Ph.D. student's entire course program requirements will be examined by the DC. If there is a change in the research program or area of work, the registration date may be revised if found necessary.

\*\*R.12.4: Arrangement of Temporary Research Supervisor when the Main Supervisor is on leave\*\*

a) When a Supervisor leaves the Institute permanently or temporarily for a period greater than or equal to six months, the DC will provide new supervisor(s) for Ph.D. students who were under their supervision before their departure. The DC may consider the original Supervisor as a Co-Supervisor upon their return, depending on the period they have supervised the Ph.D. students in question.

b) When a Supervisor leaves the Institute temporarily for a period less than one year, the Supervisor will assign a Co-Supervisor or an Administrative Supervisor. The DC will make arrangements for the guidance of the Ph.D. students with the permission of the DC.

c) Any such arrangement will be subject to prior approval from DC/DPGC/Supervisor, and the decision will be communicated to the concerned Ph.D. student.

\*\*R.12.5: Number of Ph.D. students assigned to the Supervisor\*\*

A Supervisor is limited to having a maximum of two Institute Ph.D. students at any given time in each category (TA/RA/part-time/Sponsored). However, the DC can decide on the total number of Ph.D. students of all categories working with a particular Supervisor.

\*\*R.12.6: Doctoral Committee (DC)\*\*

After a candidate completes the specified course requirements, the Supervisor will constitute a Research Progress Committee (RPC) for all candidates in consultation with the Supervisor and DPGC. The DC typically consists of the Supervisor, Co-Supervisor, a committee chairman from the department (if any), and another faculty member knowledgeable in the field of research from the department. An external member from another department may also be included.

The names of DC members and any subsequent changes in its composition will be communicated to the Dean for record. Normally, one of the RPC members will serve as the internal examiner for thesis evaluation, and the DC is expected to monitor the candidate's progress until program completion.

\*\*R.13.1: External Organization where an Ph.D. student can carry out the Research\*\*

a) Before an Ph.D. student can carry out research work partially or wholly at an external organization, that organization must be recognized by the Institute with approval from the Chairman of the Senate.

b) The DC can grant recognition to an external organization as an approved place of work under the following conditions:

i) The recognition is typically granted for the specific research project of an individual Ph.D. student.

ii) The Ph.D. student must provide details of research facilities available at the external organization when applying for admission to the Ph.D. program.

iii) The RC will review the details provided and may ask for further information or even send faculty members to visit the organization for a first-hand assessment. The RC will recommend approval only when fully convinced of the research facilities' adequacy and the external supervisor's credentials.

\*\*R.13.2: Annual Progress Seminar (APS)\*\*

Ph.D. students are required to submit an Annual Progress Report (APR) and present an Annual Progress Seminar (APS) to the research progress committee (RPC) in consultation with their supervisor and co-supervisor (if applicable) every year until successful completion of their pre-synopsis.

\*\*APS presentation schedules:\*\*

- For students joining in Autumn semester: No later than 30th July.

- For students joining in Spring semester: 31st December.

Ph.D. students who have completed six years are required to present a Progress Seminar biannually until they successfully complete the pre-synopsis. Students funded by specific agencies may have different APS schedules based on the funding agency's requirements.

\*\*R.13.3: Requirement for Continuation in the Programme/Scholarship\*\*

a) All Ph.D. students, regardless of their category, must register every semester and provide a brief report on their work from the previous semester and a plan for the upcoming semester.

b) Ph.D. students must submit an Annual Progress Seminar (APS) report through their supervisor(s) to the relevant DC once a year in July or January, depending on their admission date. The APS should be presented no later than 30th July or 31st December of each year, except for certain categories, where the dates should align with funding agency requirements.

- CSIR/UGC/INSPIRE/DBT or similar fellows' APS dates should be fixed based on their funding agency's requirements and followed strictly.

- Regular research scholars may lose their financial support if their seminar is delayed beyond the specified dates.

Continuation of registration for all Ph.D. students depends on the satisfactory progress they make. This also applies to CSIR/UGC/INSPIRE/DBT or similar fellows, with APS dates aligned with funding agency requirements. Delays in APS presentations may lead to discontinuation or cancellation of Teaching Assistantship and/or registration, and assistantship beyond the due date will be released only after a satisfactory report is received.

\*\*R.13.4: Minimum Period of Research for Submission of Thesis from the date of confirmation:\*\*

- All Ph.D. students (except external Ph.D. students) must conduct research within the Institute for a minimum of two calendar years from the date of registration after completing the Qualifier before they can submit their thesis.

- External Ph.D. students must conduct research for a minimum of three calendar years from the date of registration before submitting their thesis, after completing the Qualifier or Comprehensive exam.

\*\*R.13.5: Period of Validity of Registration of the Ph.D. Programme\*\*

- The period of validity for the registration of all categories of Ph.D. students is six years from the date of registration. Ph.D. students have the option to submit their thesis before the end of this six-year period, subject to the provisions of R.13.4.

\*\*R.13.5 a): Registration of Ph.D. programme beyond Five years\*\*

- Ph.D. students who have been registered for five or more years in the Ph.D. program are required to submit an application for an extension of their Ph.D. registration to the subsequent year in the program. This application must be completed and submitted on or before the last date for completing the Annual Progress Examination for the year before the year for which an extension of Ph.D. registration is needed.

\*\*R.13.6: Procedure to be adopted by Ph.D. students for research work involving human participation\*\*

- Ph.D. students whose research work involves human participation, either directly or indirectly, must obtain approval from the IIT Goa Institute Ethics Committee (IEC) before commencing the study or the component of the study involving human participation.

- IEC approval is mandatory for all such projects and is required by various funding agencies, such as DST, DBT, CSIR, and ICMR. Additionally, IEC approval is a prerequisite for research work involving human participation to be published in peer-reviewed journals.

- IEC approval cannot be obtained retrospectively, so it must be secured before starting any research involving human participants.

\*\*R.14 Synopsis and Thesis Submission and Evaluation:\*\*

\*\*R.14.1: Pre-synopsis Seminar and Examination\*\*

- The Doctoral Committee (DC) assesses the research work in consultation with the supervisor(s). The panel for the pre-synopsis seminar must include at least two faculty members other than the Supervisor(s), including members from the Research Progress Committee (RPC).

- The panel assesses the quality and quantity of the work for submission as a Ph.D. thesis through a pre-synopsis seminar and a detailed report. The Ph.D. student can proceed with the submission of the thesis only if the panel is satisfied with the work.

- Details of the pre-synopsis seminar are communicated to allow interested staff members and Ph.D. students to attend.

- The Convener of the DC forwards the panel reports to the Academic Office through the Departmental Postgraduate Committee (DPGC) in the format specified for Pre-Synopsis Examinations. Any publications or conference outcomes related to the thesis are to be included in the pre-synopsis report.

- Ph.D. students are required to submit both their synopsis and thesis within three months of the pre-synopsis seminar date. Failure to meet this deadline will result in the Ph.D. student being asked to present the pre-synopsis seminar once again.

\*\*R. 14.2: Submission of Synopsis and Thesis\*\*

\*\*R.14.2.1: Format of Synopsis and Thesis\*\*

- Both the synopsis and the thesis should adhere to the approved format.

\*\*R.14.2.2: Submission of the Number of Copies of Synopsis and Thesis\*\*

- The Ph.D. student should submit two copies of the synopsis to the Research Committee (RC) and 4/5 copies of the thesis to the Academic Office. These submissions should include the prescribed forms for submission and certificates from the Accounts Section and the Hostel to confirm that there are no outstanding dues against the Ph.D. student.

- After RC approval, the synopsis is forwarded to the Academic Office, accompanied by the forms and the necessary certificates.

\*\*R.14.2.4: Patent Filing\*\*

- During synopsis and thesis submission, the Supervisor is required to choose one of the following options for thesis evaluation, which is included in the submission form:

1) Immediate processing of thesis evaluation.

2) Processing of thesis evaluation after a communication from the Supervisor or after six months (whichever comes earlier), in cases where a patent is being filed or has been filed, and confidentiality of proprietary information needs to be maintained.

3) Sending the thesis for evaluation after the Non-Disclosure Agreement (NDA) has been signed by the examiner, due to the need for confidentiality of proprietary information. Ph.D. students should be aware that obtaining NDAs from prospective examiners may result in delays in thesis evaluation.

\*\*R.14.2.5: Required Certificates for Synopsis & Thesis Submission\*\*

- The submission form for both the synopsis and the thesis should include the following certificates:

a) Certificate from the DC confirming the satisfactory completion of the pre-synopsis seminar examination.

b) Certificates from the Ph.D. student and Research Supervisor(s) confirming the prima facie case for considering the thesis and stating that the thesis does not contain any work previously submitted for the award of any degree, except to the extent of collaboration if applicable.

c) Certificate of authorization from the Research Supervisor(s) for the submission of the thesis.

d) Certificate from the Deputy Registrar (Academic) confirming the completion of the prescribed course credits.

\*\*R.14.3.2: Selection of Examiners for Evaluation of Thesis:\*\*

A) The Chairman of the Senate or his nominee selects three names from the panel of external examiners approved by the Doctoral Committee (DC). Additional examiners are contacted if necessary.

B) The selected referees independently send their thesis evaluation reports to the Academic Office. These reports should include the following:

i) A critical survey and evaluation of the quality and quantity of the work presented in the thesis.

ii) Any questions or points to be clarified at the viva-voce examination.

iii) A clear recommendation regarding whether the thesis is acceptable for the award of the Doctor of Philosophy degree.

C) If a referee is unable to make a definite recommendation, they may assist the Chairman of the Senate in deciding whether the Ph.D. student should:

- Make substantial revisions involving rewriting of one or more chapters without conducting additional research.

- Completely rewrite the thesis, if it shows potential but is not acceptable in its present form.

D) The Internal Examiner for the Ph.D. thesis must be a faculty member of the Institute who is a member of the DC for the respective Ph.D. student.

\*\*R.14.4: Referees' Evaluation Reports on Ph.D. Thesis:\*\*

i. If all three referees recommend accepting the thesis as it is or with minor clarifications at the viva-voce, the defense can proceed directly.

ii. If two out of three referees recommend minor modifications, the defense can proceed after the internal examiner confirms that the changes have been made.

iii. If two out of three referees recommend major revisions, the revised thesis should be resubmitted within six months, after which it will undergo further review.

iv. If one referee recommends rejection, a third examiner's opinion will be sought.

v. If all three referees recommend rejecting the thesis in its current form, the thesis can be resubmitted for review after one year and no later than two years from the date of notification by the DC, following the presentation of a pre-synopsis seminar.

Note: Copies of the referee reports will be made available to the supervisor/Co-Supervisor and the Faculty Coordinator (FC) of the department, with an intimation to the Ph.D. student.

\*\*R.14.5: Approval of Holding the Defense and Board of Examiners for Defense:\*\*

The DC approves the viva-voce examination (Ph.D. defense) and the Board of Examiners for the defense. The defense is an open viva-voce examination held at the Institute, and the Board of Examiners is appointed by the Chairman of the Senate. The Board consists of:

i) Chairman of the DC (as the Chairman of the viva-voce committee).

ii) The research supervisor(s) from the department.

iii) A faculty member of the Institute knowledgeable in the subject, serving as the internal examiner.

iv) One of the referees who reviewed the thesis (or, if unavailable, one faculty member from outside the department).

a) An external examiner from the approved panel of examiners is required to be part of the Board of Examiners for the Ph.D. viva-voce examination. The Chairperson of the viva-voce examination panel certifies the acceptance of the thesis and the successful conduct of the viva-voce examination.

b) The Board of Examiners submits its report in the prescribed form to the Senate.

\*\*R.14.6: Defense Report:\*\*

a) Upon the successful completion of the viva-voce examination, the degree may be conferred upon the Ph.D. student, subject to Senate approval.

b) If a thesis is accepted, but the Ph.D. student fails the viva-voce examination, they may be permitted to reappear for the examination at a later date, as decided by the Chairman of the Senate. The recommendations of the Board of Examiners are considered in making this decision.

\*\*R.14.7: Submission of Final Copies of Thesis:\*\*

a) After successfully completing the Ph.D. viva-voce examination, the Ph.D. student submits the final bound hard copies and CD soft copy of their approved thesis to the Academic Office, along with the required form, within one month from the date of the defense. Additionally, one copy should be provided to the library.

\*\*R.15.1: Rate of Assistantship:\*\*

The Institute's Ph.D. students will be provided with a scholarship at a rate determined by the appropriate authorities.

\*\*R.15.2: Tenure of Assistantship:\*\*

Institute Ph.D. students are eligible to receive Assistantship for a maximum period of FIVE years, as communicated by the Ministry of Human Resource Development (MHRD).

\*\*R.15.3: Enhancement of Assistantship:\*\*

a) All Institute research scholars must apply for an enhancement of Assistantship at least two weeks before completing two years from the date of joining. They should submit five typed copies of a summary of their work, described in five to six pages, to the Chairman of the Doctoral Committee (DC).

b) Subject to a satisfactory assessment, candidates are eligible for enhanced Assistantship after completing two years from the date of joining.

c) If, in the committee's opinion, enhanced Assistantship cannot be recommended, they may specify a period of not less than three months for the candidate to reappear before the committee for reconsideration of enhanced Assistantship.

d) Teaching Assistantship will continue until the period of entitlement for Ph.D. students with Teaching Assistantship, Fellowship, or financial support routed through the Institute who submit their thesis before the stipulated five-year period. It will be available until the date of their Ph.D. Viva Voce Examination or the end of the period of their entitlement, whichever is earlier. The Dean or Supervisor of the concerned Department/School may recommend such cases by certifying the needs in consultation with the Ph.D. Supervisor(s).

\*\*R.15.4: Award of Teaching Assistantship to Ph.D. Student with B. Tech from IITs without GATE Requirement:\*\*

Teaching Assistantship will be awarded to Ph.D. students admitted with a B. Tech qualifying degree from the Indian Institutes of Technology (IITs) without GATE requirements, provided that the candidates had a Cumulative Grade Point Average (CGPA) or Cumulative Performance Index (CPI) equal to or greater than 8.00 on a 10-point scale in their B. Tech degree.

\*\*R.16.1: Leave Entitlement:\*\*

All Ph.D. students are entitled to leave for a maximum of thirty days per year in addition to Public Holidays. Additionally, 10 days of leave on medical grounds are permitted.

\*\*R.16.2: Maternity Leave:\*\*

Women scholars are entitled to maternity leave at the full rate for a period not exceeding 180 days, once during the tenure of their Ph.D. studentship. This leave should be supported by a medical certificate.

\*\*R.16.3: Paternity Leave:\*\*

Male scholars are entitled to 15 days of paternity leave once during the tenure of their Ph.D. studentship. This leave should be supported by a medical certificate. The Dean or Chairman of the Doctoral Committee is authorized to sanction this leave.

\*\*R.16.4: No Summer/Winter Vacation:\*\*

No vacation in Summer/Winter is admissible.

\*\*R.16.5: Special Leave for Seminar/Conference Attendance:\*\*

Special leave to attend seminars or conferences in India or abroad to present research papers, with the permission of the Dean of Academic Programmes, is admissible.

\*\*R.16.6: Financial Support Rules:\*\*

Ph.D. students under the CSIR, UGC, and other categories are governed by the rules of the funding bodies that provide financial support.