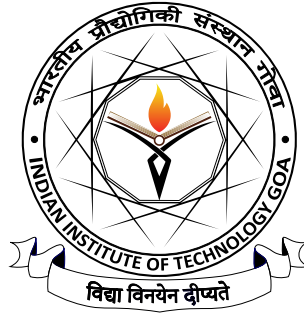


Doctor of Philosophy (Ph.D.) Manual

Version 2.0¹



Indian Institute of Technology Goa

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Revision History

Revision	Date	Author(s)	Description
1.16	2020-11-25	SPGC	The version approved by the 9th Senate meeting of IIT Goa.
1.17	2021-07-21	SPGC	Amendments to Doctoral Committee (Chapter 4), Comprehensive Examination (Section 5.1), State-of-the-Art Seminar (Section 5.2), Annual Progress Seminar (Chapter 6), and Appendix I; Changed DPGC to PPGC throughout the document. The version approved by the 10th Senate meeting of IIT Goa.
1.18	2021-10-05	SPGC	Amendments to Annual Progress Seminar (Chapter 6). The version reported to the 11th Senate meeting of IIT Goa.
1.19	2022-10-10	SPGC	Amendments to Ph.D. candidacy (Chapter 5) and Research communication, ethics, and methods (Section 3.1.5). The version reported to the 14th Senate meeting of IIT Goa.
1.20	2023-12-15	SPGC	Amendments in maximum duration to graduate in the description of table 3.1, course guideline for NPTEL (section 3.1.3), minimum credit registration requirement for DR800 (section 3.2), criteria for examiners for Ph.D. dissertation evaluation (section 7.1), criteria for Ph.D. dissertation submission (section 7.1), constitution of the defence committee (section 7.4), leave policy (Chapter 9), Ph.D. exit policy guidelines (section 8.5). The version reported to the 18th Senate meeting of IIT Goa.

2.0	2025-06-20	SPGC	<p>Amendment in Introduction (Chapter 1), Amendment in timeline of credit requirement through coursework (Section 3.1), Amendment in maximum course registration through NPTEL/MOOC counted towards coursework requirement (Section 3.1.3), Semester drop introduced (Section 3.3), Amendment in constitution of doctoral committee (Section 4.2), Amendment in APS timeline for student enrolled in Autumn semester (Chapter 6), Amendment in Pre-dissertation seminar, synopsis, and dissertation (Section 7.1), Amendment in Evaluation of dissertation (Section 7.2), Amendment in constitution of defence committee (Section 7.3), Amendment in Failure in courses (Section 8.2), Amendment in Academic probation (Section 8.4), Amendment in Exit degree (Section 8.6).</p>
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Introduction

Indian Institute of Technology Goa strives to impart state of the art education, research, and training in science, technology, humanities and social sciences. The Ph.D. program of the institute began in the year 2018. The objective of the Ph.D. program is to provide an avenue for the transformation of an individual into an independent thinker and for developing an ability to identify and solve new problems to push the frontiers of knowledge, and make a difference to society at large. The Ph.D. program encompasses the mandatory course work, research work and its continuous monitoring, and the research communication. Currently, the PhD program is offered in the following schools.

1. School of Chemical and Materials Sciences
2. School of Electrical Sciences
3. School of Humanities and Social Sciences
4. School of Interdisciplinary Life Sciences
5. School of Mathematics and Computer Science
6. School of Mechanical Sciences
7. School of Physical Sciences

This manual gives guidelines, rules, and regulations for students enrolled in the Ph.D. program.

Admissions

2.1 Admission categories

Students are admitted to the Ph.D. program through an institute selection process under any one of the following categories:

Full-Time or Regular Ph.D. student

1. Teaching Assistantship (TA): Students get fellowship from the institute as per the guidelines by the Ministry of Education
2. TA through Project (TAP): Students get fellowship from the research project and partial support from the institute
3. Govt./ Semi Govt. Fellowship Awards such as QIP, CSIR-JRF, UGC-JRF, DAE, DST-INSPIRE, DBT, NBHM, etc.
4. Sponsored: A student in this category is sponsored by a R&D organization, academic institution, government organization, or industry for doing research in the institute on a full-time basis. The institute does not provide any assistantship/fellowship to such a student.
5. Self-financed: A student in this category works full-time or part-time towards the Ph.D. program. The institute does not provide any assistantship/fellowship to such a student.

Part-Time Ph.D. student A student in this category is a professionally employed person (including IIT Goa staff), who pursues the Ph.D. program while continuing the duties of the employment. The institute does not provide any assistance/fellowship to such a student.

1. Permanent employees from state or central government universities, colleges, or research institutes and labs
2. External: This category refers to a student employed in an R&D organization/academic institution/industry having adequate research facilities. The research work leading to

the Ph.D. degree may be carried out largely in the parent organization of the candidate under a Local Supervisor from the organization but with the overall guidance provided by a faculty member (Institute Supervisor) of the [AU](#) in which the student is registered.

3. Self-sponsored
4. Permanent staff of IIT Goa

2.2 Eligibility for admission to the Ph.D. program

Candidates have to fulfill the requirements set by the institute. These are: At least *First Division* or equivalent in M.A./ M.Sc./ B.Tech./ B.E./ MCA/ M.Tech./ M. Phil. or equivalent degree in appropriate branches. Individual Academic Units ([AUs](#)) may use higher cut off levels and/or other appropriate discipline-wise criteria for shortlisting if required. Candidates belonging to reserved categories are eligible for relaxations, as per norms, in the selection criteria.

Registration and credit requirements

1. All Ph.D. students should submit their (original) qualifying degree/ diploma certificates (QDC) within one year after joining the institute. However, students must submit their provisional degree/ degree completion certificate (if no QDC available) along with the degree/diploma transcripts at the time of the admission to the Ph.D. program. In this case, the student is admitted to the institute provisionally and fellowship may be withheld until the student's admission is confirmed. The provisional admission will be cancelled if QDC is not produced within the stipulated time mentioned above.
 - a) Students who are unable to submit their QDCs to Academic Section within the due date should apply for extension along with an undertaking stating the new date for submission, giving proper reasons.
 - b) Provisionally selected students, who do not fulfill the admission requirements (candidates who are awaiting results of qualifying exams) as prescribed by the institute, must submit the provisional certificates within six months of joining otherwise their admission will be cancelled.
 - c) Requirements for respective funding agencies will be applicable to student scholarships
2. On joining the Institute every student is assigned to a Faculty Advisor (FA) by the AU in which the student is admitted. The student must plan his/her academic program in consultation with the FA. The student should also identify a Doctoral Advisor (DA) and inform the Academic Office before the stipulated time (details in Chapter 4).
3. All enrolled students must register for courses or research at the beginning of subsequent semesters through the institute registration program in consultation with their FA/DAs. This registration at the beginning of each semester is mandatory for all students, and they must register on the prescribed dates announced from time to time.
4. A student is required to register for a minimum of 12 credits every semester. If the core and elective courses taken by the student in a given semester are less than 12 credits, the remaining may be taken as research credits (Section 3.2).

5. If a student does not register for two consecutive regular semesters, the admission will be cancelled suo moto.
6. Students must complete the minimum credit requirements through courses and research as described in Table 3.1. Students, upon completion of five or more years in the program, are required to submit an application for the extension of Ph.D. registration to the subsequent semester. This application must be approved before the last date of registration for the ensuing semester. The financial support provided to the student will follow the rules set by the funding agency and/or the institute.
7. Students are allowed to register for a maximum of two audit courses per semester, with the consent of their FA/DA.
8. A student is not permitted to re-register for a course, which the student has undergone and in which the student has secured an Audit or a Passing Grade (unless it is a course replacement, details Section 8.3).
9. Academic Units may set the minimum course credit requirements over and above those listed in Table 3.1 with approval from Chairperson, SPGC.

Qualifying degree	Minimum credits through coursework †	Minimum credits through research	Minimum credits for graduation	Maximum duration to graduate ★
Group A B.Tech., B.E. or equivalent 4-year bachelor's degree	24	54	78	7 years
Group B M.Sc., M.A. or equivalent	18	54	72	6 years ‡
Group C M.Tech., M.E., or M.Phil. or equivalent	9	54	63	6 years ‡

Table 3.1: Minimum credit requirements and expected duration for a student enrolled in the Ph.D. program from various qualifying degree. ★ from the date of joining, excluding the semester drop period. † The credits earned through the *Graduate Research* course (Section 3.2) are not counted towards the minimum coursework requirement. ‡ 7 years for part-time Ph.D. students.

3.1 Credit requirements through course-work

Students enrolled in a Ph.D. program must acquire the prescribed minimum credits through coursework (see Table 3.1), which shall be completed within the first two semesters from

the date of joining. However, the duration could be extended with permission from the Chairperson, [SPGC](#). The Group C students are encouraged to complete the coursework within the first semester.

3.1.1 Course registration

1. Ph.D. students, after payment of prescribed semester fees, should complete their registration in consultation with and approval of the [FA/DA\(s\)](#).
2. Ph.D. students, in consultation with their [FA/DA\(s\)](#), can carry out course adjustments within the time limit provided in the Academic Calendar.
3. Students should ensure that they comply with the credit requirements listed under the rules prescribed above.
4. Ph.D. students who are unable to commence their course program during the semester in which they have been admitted (due to unavoidable circumstances) may be permitted to commence their course work in the following semester. Such requests should be duly forwarded to SPGC by the concerned PPGC. This is a one-time possibility and will be approved by Chairperson, Senate.

3.1.2 Relaxation from course credit requirements

Normally, all students enrolling for Ph.D. programs have to undergo coursework in order to complete the credit requirements as mentioned in Table 3.1. However, relaxation in the course credit requirements may be provided on a case to case basis, subject to the approval of the Chairperson, Senate.

3.1.3 Crediting NPTEL or MOOC courses

Ph.D. students are permitted to credit courses from NPTEL or MOOC under special circumstances after the approval from the Dean (AP), upon recommendation of [FA/DA\(s\)](#) and [AU](#).

1. Only PG level courses will be considered for course credit requirements.
2. A maximum 3 (Three) online course credits shall be counted towards the minimum credit requirement. For credit calculation of NPTEL/MOOC course, see Annexure IV.
3. Such a course registered by the students should be administered by an IIT Goa faculty, who is referred to as the Faculty Mentor for the course. The Faculty Mentor will conduct the examinations and grade the student.
4. Students must follow the institute guidelines for course registration, adjustments, drop, completion, and course credits.

3.1.4 Course on research communication, ethics, and methods

1. Such a course is compulsory course for all Ph.D. students.
2. It is graded as Pass/Non-Pass. No grade points are allocated for the calculation of the CPI. This course is not counted for the minimum course credit requirements mentioned in Table 3.1.
3. Students are required to complete this course preferably within two years from the date of their admission to the Ph.D. programme to be eligible for the award of Ph.D. degree.
4. Exemption for doing this course may be given to those students who have completed such equivalent course(s) at the graduate level
 - a) from an IIT, IISER, other reputed institutes/universities in India or abroad, and
 - b) must have completed such course(s) within five years before joining the institute

3.2 Credits requirements through research

Ph.D. students are required to acquire certain minimum credits through research for graduation (see Table 3.1).

1. *Doctoral Research*: A student is allowed to register for doctoral research credits only after obtaining the Ph.D. candidacy (See Chapter 5). The grading will be done by the DA (or co-advisor, if the doctoral advisor is not available due to any reason) by the beginning of the next regular semester as defined by the institute. However, the grades of the semesters preceding the APS should be submitted before the APS. The grades of the two semesters preceding APS will be considered final only after the APS (i.e. it is a provisional grade). If there is no communication received by the academic section regarding the grades after the APS, they will be considered final.
2. Each doctoral research unit is of 3 credits. For every 3 credits, a grade of 'S' (satisfactory) or 'U' (unsatisfactory) may be given. Three (3) credits may be equivalent to, but not limited to, 8-10 hours of work per week. Although a 'U' grade may be counted towards the credit hours, it will not be considered for evaluating the research credits earned during the Ph.D. program. Only 'S' grades will be counted toward the required research credits. These grades shall not be counted towards the calculation of CPI/SPI.
3. Overloading of research credits may be approved by the Chairperson, SPGC as a special case, upon recommendation from PPGC. The minimum credit registration requirement for doctoral research per semester for part-time Ph.D. students is 6 credits.

4. During doctoral research a full-time registered student must secure a minimum of four 'S' in any two consecutive semesters. If a student fails to secure minimum research credits in any two consecutive semesters, the student must appear for the Progress Seminar before DC. The seminar should be held within one month of the announcement of grades for the preceding semester. The progress seminar is not required if it coincides with the student's normal APS schedule. The DC will submit a report of the progress seminar to the Academic Office through AU.
5. At any time during PhD, if the student accumulates 9 'U' or more, he/she is liable to be terminated. This clause will be applicable to all students; the accumulation of grades 'U' will be considered from AY 2025-2026 onwards.
6. For completion of the Ph.D. program, a student is required to secure a minimum of 54 credits (i.e. 18 'S') through research. However, this is not an upper cap and merely securing 18 'S' will not make a student entitled to submit a dissertation. The dissertation submission shall be subject to the conditions mentioned in Chapter 7.
7. The grades allotted in the two semesters preceding APS should be presented to the DC. If the grades awarded are not commensurate with the performance in the APS, then the grades may be revised accordingly as per the recommendations of the DC, which should be reported to the SPGC for further action.

Graduate Research A Ph.D. student is also permitted to register for graduate research credits until the student obtains the Ph.D. candidacy. The student's DA(s) or an IIT Goa faculty may guide such a course. The student may register for 3, 6, 9, or 12 credits in a given semester for this course. The evaluation for this course is same as the Doctoral Research course. A maximum of 6 credits may be considered towards the minimum research credit requirements for the Ph.D. program.

3.3 Semester drop

A student is allowed to drop a semester on genuine and pressing grounds up to a maximum of two semesters during the entire program. Barring medical reasons, the semester drop will not normally be approved before the student completes the minimum course and research credit requirements; see Table 3.1 for details. The request for a semester drop should be made to SPGC duly forwarded through PPGC. Except for medical reasons, dropping for more than one semester will not be permitted at a time.

Doctoral committee

4.1 Doctoral Adviser (DA)

For students under

1. Group B and Group C (Table 3.1), the process of DA allocation should be completed within the first three months of their joining the institute,
2. Group A (Table 3.1), the process of DA allocation should be completed within one year of their joining the institute,

as per the policies laid down by the AU.

4.2 Doctoral Committee (DC)

The DA(s) in consultation with the student, shall form the Doctoral Committee (DC) before the comprehensive examination of the student (Section 5.1). The committee shall comprise the following members.

1. The doctoral advisor (DA) and co-doctoral advisor, if any.
2. One faculty member from the student's AU
3. One faculty member from the institute (outside the student's AU)
4. One expert from within or outside the institute (Optional)

The DC shall be chaired by any member other than the DA. The DA is the member convener of this committee. The constitution of a DC should be recommended by the respective AU's PPGC and it will be forwarded to the Office of the Dean (Academic Programs). The DC is approved by the Chairperson, SPGC. It is not desirable to have the same doctoral committee for two students of a doctoral advisor. Under exceptional circumstances, the DC may be reconstituted before the second Annual Progress Seminar (APS; Chapter 6). The co-doctoral advisor will normally be allocated before the second APS. DC's roles include, but are not limited to,

1. Monitoring whether a Ph.D. student is in good standing in terms of research throughout the program, and
2. Setting additional research requirements (additional to what is specified here in this Ph.D. manual)

4.3 Change of DA

If a situation arises where a student requests to change the DA or a faculty makes a request to relieve the student, and another faculty of the AU agrees to supervise the student, then the student may be transferred with the approval of the Chairperson, SPGC. Such requests should be made to the Program Chair. In case, the Program Chair happens to be the concerned DA, then the request should be made to the convener, PPGC.

1. Under these circumstances the DC may be reconstituted **within a month** of the approval of the change of DA
2. If the area of research requires modification due to this change, the student's entire course work requirement shall be examined by the DC. The student's Ph.D. candidacy may be revised, if found necessary.
3. The State Of the Art Seminar (*cf.* Section 5.2) may be given again, if it is set mandatory by the respective AU. In such a case, the student has to complete the requirement within **four months** of the approval of the new Doctoral Committee or the approval of the change of DA, whichever is later.
4. The decision of the institute in this regard will be final and binding.

Ph.D. candidacy

A student obtains Ph.D. candidacy, i.e., the confirmation of Ph.D. registration, only after the successful completion of the comprehensive examination (Section 5.1) and minimum course credit requirements (e.g. see Chapter 3; Table 3.1).

5.1 Ph.D. comprehensive examination

Ph.D. Comprehensive Examination is mandatory for every student to complete the Ph.D. registration. The examination should be successfully completed within six months of the completion of the minimum course credit and CPI requirements. SPGC may grant an extension in unforeseen cases up to two months in total, under the recommendation of the student's AU. The mode of Comprehensive Examination (written, written + oral), as well as the modus operandi, is decided by the student's AU and is intimated to the students. Students will be informed at least one month prior to the date of the examination.

A student who fails the exam on the first attempt may be given one more chance. However, students must successfully complete the exam within the stipulated time frame. If a student fails to do so, the student may be terminated from the Ph.D. program. The report of the examination(s) should be submitted to the Academic Office within two weeks of conducting the examination(s).

5.2 State of the Art Seminar (SOAS)

SOAS may be an additional requirement for the Ph.D. program set by the respective AU. If the AU mandates SOAS, it should be completed **within six months** of the successful completion of the Comprehensive Examination. SOAS will be conducted under the guidance of DC. If the first SOAS is not satisfactory, the student is required to present another SOAS within a month (or as prescribed by the DC).

The respective AU's PPGC may consider requests to extend the deadline of the SOAS in unforeseen cases.

Annual progress seminar

After completing the Comprehensive Examination (Section 5.1), every student enrolled in the Ph.D. program must appear for the Annual Progress Seminar (APS).

1. The students enrolled in the Autumn semesters will present their APS every July/August, and students enrolled in the Spring semesters will present their APS in December/January. If State of the Art Seminar (SOAS) is a mandatory requirement of the student's AU,
 - a) then SOAS may be considered as the 1st APS if it coincides with the normal time of the APS schedule.
 - b) otherwise, the student must present APS whenever the student is due after the SOAS.
2. If the student cannot present APS according to the schedule, an application for extension must be made at least 15 days before the due date to the academic office. Such requests will be considered by Dean (AP) on a case-to-case basis.
3. If the performance is found to be unsatisfactory for the assessment period, the student may be asked to repeat APS within six months. If two consecutive APS are unsatisfactory, the student may be terminated.

APS is open to all in the student's school or program. In addition to the seminar, the student shall also submit a report to the doctoral committee (DC) at least ten days before the APS. The DC will review the APS. The DC shall submit a report to the head/coordinator of the AU. The APS report will then be forwarded to the Academic Office within a week from the APS date.

The rules described here are also applicable to students who get external funding agencies' support. The APS date of such students may be fixed by considering the requirements of the funding agencies. An additional member from other institutes may be invited for evaluation if mandated by the funding agency.

APS may also be required for enhancement (or continuation) of any financial assistant-ship from the institute.

Submission and evaluation of synopsis and dissertation

7.1 Pre-dissertation seminar, synopsis, and dissertation

A Ph.D. candidate must present the Pre-dissertation seminar before the synopsis submission. This seminar is open to all. The procedure is the following.

1. The student must submit a report in the prescribed format to the student's [DC](#) at least seven days before the pre-dissertation seminar.
2. One publication (accepted/published) in a peer-reviewed journal or conference proceedings is required for submission of the pre-dissertation report.
3. A positive report from the DC will make the candidate eligible to submit the synopsis. The synopsis in the prescribed format can be submitted either before or along with the dissertation.
4. The dissertation should be submitted to the academic office within three months of the pre-dissertation seminar, in the prescribed format. The documents to be submitted, along with the dissertation/synopsis, are specified in the Annexure¹.
5. SPGC sets [guidelines](#) for preparing the list of examiners. The student's DA(s) will submit a confidential list of examiners.
6. On unsatisfactory performance in the pre-dissertation seminar, a candidate must give another seminar within six months of the last seminar.
7. If the synopsis and dissertation are not submitted within the stipulated period mentioned above, the student may be required to present the pre-dissertation seminar again.

¹This Annexure is available on the intranet

7.2 Evaluation of dissertation

7.2.1 Review categories

Three external reviewers will evaluate the dissertation in one of the following categories.

- A. The dissertation is accepted in its present form for the award of the Ph.D. degree.
- B. The dissertation is accepted with minor revisions/corrections (enclosed). The dissertation need not be sent for review again. (It will be verified internally.)
- C. The dissertation should be revised (major revisions/corrections) per the enclosed report. The reviewer would like to evaluate the revised Ph.D. dissertation.
- D. The dissertation is not acceptable in its present form for the award of the Ph.D. degree.

Each reviewer will normally be given six weeks to review the dissertation and submit the review reports.

7.2.2 Classification of review reports and decision on the defense

Chairperson, SPGC will classify the reports as per the provisions listed below. The Academic Office will share the reports with the DA(s), PPGC Convener, and Program Chair, without disclosing the identity of reviewers.

Case-I

- (i) If all three review reports recommend categories either A or B, the defense can be held, subject to incorporating the changes suggested by the reviewers.
- (ii) If the first two reports recommend categories either A or B, a reminder will be sent to the third reviewer with a final due date of two weeks or the time left from the original due date, whichever is later. If there is no response from the third reviewer by the due date as mentioned in the reminder, then the Chairperson, SPGC, may grant permission to hold the defense with the two reports, subject to incorporating the changes suggested by the reviewers.

The proposed changes will be verified during the viva voce examination.

Case-II If two reports recommend category D, then the dissertation in its present form is considered rejected, irrespective of a positive third report. The student must make necessary changes and do additional work as required. The student shall be allowed to submit the dissertation only after *one year* of receipt of the reports from the Academic Office. This period shall not exceed two years from the date of communication of the reports. The student must appear for the pre-dissertation seminar again; refer to Section 7.

Case-III Major revision will be recommended for the rest of the scenarios. The revised dissertation should be resubmitted within *six months* after incorporating the required changes. The revised dissertation will be sent to those reviewers who recommend a major revision (Category C) or reject the thesis (Category D).

7.3 Dissertation defence

7.3.1 Constitution of the defence committee

The committee shall comprise

1. Chair (A faculty member outside of the parent AU)
2. One of the external reviewers who evaluated the Ph.D. dissertation
3. An internal examiner (from the parent AU)
4. Doctoral advisor(s)

The Academic Office will share the names of the external reviewers with the doctoral advisor(s) and Program Chair. The defence committee shall be proposed by the doctoral advisor(s) in consultation with Program Chair, which shall be forwarded to Chairperson, SPGC, through PPGC Convener. The defence committee is approved by the Chairperson, Senate on Chairperson, [SPGC](#)'s recommendation.

7.3.2 Ph.D. defence

The doctoral advisor(s) shall decide upon a suitable date for the defence in consultation with the defence committee. The defence will be open to all and should be announced at least one week in advance. The defence may be held in online mode only if in person meeting is not possible. The requests for holding the defense online will be approved by Chairperson, SPGC.

The office of Dean (AP) will share with the defence committee the electronic copies of the revised dissertation, reports of the reviewers (without disclosing their identity), and response to reviewer's comments at least one week before the defence.

The defence committee will submit its report on the *viva voce* examination in the prescribed format to the [SPGC](#). In case of unsatisfactory performance in the defence, the defence should be held again with the approval from the Chairperson, Senate.

7.3.3 Defence report

The student will submit the final dissertation copy in electronic format to the office of Dean (AP), after duly incorporating the suggestions/corrections from the defence committee and

external examiners, within one month from the date of defence. This file should include the signed copy of the approval sheet.

Performance requirements and remedial tools

Students are expected to produce high-quality research and exhibit superior academic performance. This section only provides minimum performance requirements and remedial tools to improve performance.

8.1 Minimum CPI requirements

Students must maintain the minimum Cumulative Performance Index ([CPI](#), see Annexure I) of **6.5 out of 10** at the end of every semester. Individual [AUs](#) can set a high value for the minimum CPI requirements. If they do not maintain the minimum CPI requirements, they will be in Academic Probation, and the remedial measures are discussed in Section [8.4](#).

8.2 Failure in courses

1. A student is not allowed to have more than two Failure grade in the entire Ph.D. program. If a student fails more than once, the student is liable to be terminated from the Ph.D. program (Section [8.5](#)).
2. If a student fails in only one course, the student can
 - a) avail of a re-examination in that course as per the grading policy of the institute,
 - b) repeat the course or register for an alternative course.

8.3 Grade improvement

A student who fails to maintain the minimum [CPI](#) requirements will be allowed to repeat or replace a course for grade improvement, subject to meeting other credit requirements of the Ph.D. program (Section [3.1](#)).

1. This option is applicable for courses in which the student obtained grades C+ or below. A student can avail of this option only for two (2) courses in the enrolled program and only once for a specific course.

2. The student should finalize the grade improvement plan in consultation with FA/DA.
3. The grade obtained in the re-registered course will supersede the earlier grade for [CPI](#) calculation and the same will be reflected in the semester grade card. The final transcript contains all courses taken by the student.
4. Students must complete grade improvements within the stipulated time for the completion of the minimum credit requirements of the Ph.D. program (Section [3.1](#)).

8.4 Academic probation

A student will be put on academic probation for a maximum of one semester,

- (i) if the student does not meet the minimum CPI requirement at the end of a semester, or
- (ii) if the student does not complete the minimum credit requirements of coursework within the stipulated time.

1. Academic probation will be reported to the Senate, through [SPGC](#).
2. After one semester of academic probation, if the student fails to achieve satisfactory performance the student is liable to be terminated from the Ph.D. program (Section [8.5](#))
3. Any concession or fee waiver is not applicable to Ph.D. students during the period of Academic Probation
4. Institute may relax [TA](#) duties of such students to enable them to concentrate on their academic activities.
5. Students are not allowed to represent the institute in extracurricular activities or contest in student body elections during the period of probation.

8.5 Termination from the Ph.D. program

A student is liable to be terminated from the Ph.D. program without any degree if

1. the student concurrently registers for any other academic program. This is with immediate effect.
2. the student takes an employment at another organization without converting the Full-time Ph.D. program to an appropriate Part-time Ph.D. program (Section [2](#)). This is with immediate effect. However, the student may be permitted to seek employment after completing the pre-dissertation seminar with approval from SPGC.

3. the student's academic or research performance is unsatisfactory, as described in any of the performance measurements above or as identified by the concerned [DC](#) or [SPGC](#).
4. the student fails to successfully complete the comprehensive examination or qualifying examination (Section [5.1](#)).
5. there is violation of the code of conduct of the institute.

8.6 Exit degree

Exit differs from *termination* in the sense that the former may facilitate getting a lower degree.

1. The exit degree shall not be the right of the student. However, the student may submit a request for an exit degree. PPGC will evaluate such a request based on the DC's report and will submit its recommendation to SPGC for consideration. The student will automatically be registered for the exit degree on approval of the request by the Chairperson, Senate. However, the continuation of such registration shall be subject to fulfilling necessary conditions.
2. The student may be given up to six months to complete the additional requirements for the exit degree.
3. Failure to comply with all requirements for the exit degree within **six (6) months** of conversion may lead to termination from the exit degree program.
4. Any financial implications due to exit from the PhD program will be decided by respective funding agencies.
5. The exit degree, **Master of Science (M. S.) by research**, and its corresponding requirements are listed below.
 - a) The student should have passed the Comprehensive Examination.
 - b) The student should have obtained the minimum credits through coursework as prescribed (ref. Table 3.1 of Ph.D. Manual) with a CPI greater than or equal to 6.5 out of 10.
 - c) The student should have obtained a minimum of 12 'S' and less than 6 'U' grades in doctoral research.
 - d) The student must submit an M.S. Thesis, which will be evaluated and accepted by a defence examination committee that has the following constitution:
 - i. Chair, who is a faculty member from a different AU.
 - ii. Internal examiner: A faculty member from the parent AU.

iii. External examiner: A faculty member from a different AU with relevant experience in the subject area of the thesis, if available. If unavailable, an additional internal examiner may be considered subject to the approval of AU.

iv. The student's doctoral advisor(s).

The defence examination committee will be approved by Dean (AP).

Leave rules

Students may be granted leave upon recommendation from the [FA/DA](#) and application through the concerned AU. Applications must be submitted well in advance of the date of commencement of the leave requested. Dean (Academic Programs) is the competent approving authority for all the leaves mentioned below.

Students enrolled under [CSIR](#), [UGC](#), and other categories are governed by the rules of the bodies which provide financial support. Leave rules of the parent organization are applicable for part-time students. The institute leave rules are applicable to Part-time students during the time of course work.

9.1 Annual Leave and Casual Leave

Students funded by the Ministry of Education or Institute are entitled for annual leave for a maximum of 24 days per year and casual leave for a maximum of 8 days per year in addition to the public holidays. The leave will be treated as part of the student's tenure. Such leaves not availed will not be carried over to the next year. During the first year of fellowship or for any uncompleted year, leave may be accounted on a pro-rata basis for the completed months.

9.2 Maternity and Paternity leave

Maternity and paternity leave would be available to female and male students as per Government of India instructions issued from time to time¹.

9.3 Medical Leave

Leave on medical grounds, duly supported by a medical certificate (from the IIT Goa medical section), may be granted to a student for up to 10 days per calendar year. Such leaves not availed will not be carried over to the next year.

¹Details are available in IIT Goa Statutes

9.4 Conference Leave

Conference leave would be available to students for a maximum of 5 days + 2 days as transit time per conference to attend seminars, conferences, workshops, and scientific events in India or abroad to present research work.

9.5 Project Duty leave

Students can be granted project duty leave for 45 days on recommendation from the [FA/DA](#) for carrying out fieldwork, experimental, or computational work in an authorized academic or research institution or industry. Further extension is subject to special approval by the Competent Authority.

9.6 Absence without sanctioned leave

In case of emergency, the student should inform the doctoral advisor as soon as possible and apply for the leave at the earliest. Student's absence without sanctioned leave

1. will entail loss of the student's financial assistantship for the period of absence, and
2. may result in the termination of the student's program on the recommendation of the concerned AU and approval of [SPGC](#).

Miscellaneous

10.1 Change of status from Full-time to Part-time

A Full-time Ph.D. student is not allowed to take any positions unless assigned/approved by the institute. However, a Full-Time Ph.D. student may be allowed to convert to Part-Time Ph.D. with the approval of the Senate. Such requests will be considered after completing the minimum course and research credit requirements.

10.2 Guidelines for research work involving human participation

Ph.D. students whose research work involves human participation (either directly or indirectly), should obtain the Institute Ethics Committee (IEC) approval prior to the start of the study or the component of the study involving human participation. IEC approval is mandatory for all such projects. In fact, this is mandated by several funding agencies such as DST, DBT, CSIR, and ICMR. IEC approval is also a prerequisite for publishing any such research work. IEC approval cannot be taken retrospectively.

Requirements for students enrolled before AY 2021-2022

The Ph.D. manual is applicable to all students enrolled in the Ph.D. program at IIT Goa. While the rules are applicable to all the students enrolled in the Ph.D. program, certain amendments to the rules and regulations are recommended for the students enrolled in the Ph.D. program during the academic years 2018-2019, 2019-2020, and 2020-2021. The deviation from rules for such students is detailed below.

Credit requirements from coursework (Section 3.1) The students enrolled in the academic years 2018-2019, 2019-2020, and 2020-2021 shall have to meet the credit requirements as tabulated in Table I.1.

Qualifying degree	Minimum credits through coursework †	Minimum duration to graduate *	Maximum duration to graduate *
Group A B.Tech., B.E. or equivalent 4-year bachelor's degree	44-56	3.5 years	7 years
Group B M.Sc., M.A. or equivalent 5-year Master's degree	32-46	3 years	6 years
Group C M.Tech., M.E., or M.Phil. or equivalent 6-year Master's degree	16-22	2.5 years	6 years

Table I.1: Minimum credit requirements and expected duration for a student enrolled (before AY 2021-2022) in the Ph.D. program from various qualifying degree. * from the date of joining. † A student is allowed to complete extra credit courses, if necessary, as recommended by the student's DA (s), DC, or AU

Crediting NPTEL or MOOC courses (Section 3.1.3) The grading system proposed in the manual shall be applicable for all courses the students shall enroll for after this manual comes into effect. The courses that have already been graded shall remain unchanged.

Credit requirement through research (Section 3.2) There shall be no minimum credit requirement through research for students enrolled in the academic years 2018-2019, 2019-2020, and 2020-2021. From the academic year 2021-2022 all students irrespective of the year of enrollment shall register for 12 credits every semester and they shall be graded as detailed in Section 3.2. The waiver is only on the minimum research credits to be earned (i.e. 54 credits or 18 'S'). All other rules of doctoral research shall be applicable.

Minimum CPI requirements (Section 8.1) The students enrolled before 2021 shall have to secure a minimum CPI of 6.0 out of 10 in order to fulfill the course work requirements for registration to the Ph.D. program.

Ph.D. comprehensive examination (Section 5.1) If the students enrolled in the academic years 2018-2019, 2019-2020, and 2020-2021 have had satisfactory performance during an APS or appeared for any equivalent examination conducted by the respective academic unit or doctoral committee, then that shall be considered as successful completion of Ph.D. comprehensive examination. If the student enrolled in these years, has not appeared for any such scrutiny, then they will have to appear for a Ph.D. comprehensive examination as per the existing rules of the academic unit.

State of the Art Seminar (SOAS, Section 5.2) If the students enrolled in the academic year 2018-2019 have had satisfactory performance during an APS or appeared for any equivalent examination conducted by the respective academic unit or doctoral committee, then the SOAS is waived off for such students. AUs may take appropriate decisions for the SOAS for students admitted in AY 2018-2019, 2019-2020, and 2020-2021.

Graduate seminar course The students may be allowed to take two such courses in the entire Ph.D. program.

Academic performance index

The academic performance of a student in a semester is measured by Semester Performance Index (**SPI**). SPI is the weighted average of the final grade points obtained in all the courses taken by the student during the semester. SPI is calculated to two decimal places.

An example of SPI calculation is as follows. Suppose in a given semester, a student has taken five courses having credits C_1, C_2, C_3, C_4, C_5 and the student's final grade points in those courses are G_1, G_2, G_3, G_4, G_5 respectively. Then, the student's SPI is

$$\text{SPI} = \frac{C_1G_1 + C_2G_2 + C_3G_3 + C_4G_4 + C_5G_5}{C_1 + C_2 + C_3 + C_4 + C_5} \quad (\text{II.1})$$

Cumulative Performance Index (CPI) CPI denotes the up-to-date academic performance of a student from the time the student enrolled in the Institute. CPI is the weighted average of the final grade points obtained in all the courses taken by the student since the student entered the Institute. The CPI calculation is the same as the SPI calculation.

Course credit calculation, grading, and types

III.1 Credit calculation from contact hours

Courses are classified mainly into theory, laboratory, self-learning, seminar, or research courses. Each course is associated with a fixed number of credits commensurate with the quantum of work associated with that course. For example, theory courses consist of lecture (L) hours and tutorial (T) hours, and may have practical (P) hours in special cases. Laboratory courses consist of practical (P) hours, and attached tutorial (T) hours in special cases. Credit (C) hours for a course is computed as follows¹

1. For a full semester Lab/Practical only course, i.e., one with zero lecture hours but possibly with tutorials, the credit is

$$T + \left\lceil \frac{P}{2} \right\rceil$$

2. Otherwise, i.e., when the course involves lectures, the credit is

$$L + T + \left\lfloor \frac{P}{2} \right\rfloor$$

Examples:

- (a) A 3-0-0 full semester course with 3 lecture hours per week and no practicals or tutorials constitutes 3 credits. A half-semester course with similar parameters carries 1.5 credits.
- (b) A standard 3-0-3 full semester course with 3 lecture hours per week and 3 lab hours per week carries 4 credits. So does a standard 3-1-0 course with 3 lecture hours per week and 1 tutorial hour per week.

Old system Credit (C) hours for a course is computed based on the following formula²

$$C = 2(L + T) + P$$

Examples:

¹Adapted from U.G. Curricular Structure 2019, IIT Goa

²Adapted from IIT Bombay. This scheme is included for completeness.

- (a) A theory course with two lectures ($L = 2$), one tutorial ($T = 1$), two practical ($P = 2$) hours per week throughout the semester has a credit of $C = 8$.
- (b) Similarly, a lab course with two tutorials ($T = 2$) and two laboratory ($P = 2$) hours per week throughout the semester carries a credit of $C = 6$.

III.2 Graduate Seminar Course

1. Such a course will be of 2 credits and cannot be credited more than once in the entire PhD program.
2. This course is offered by an AU.

Credit calculation and grading for NPTEL/MOOC courses

We follow a uniform credit calculation and grade assignment for NPTEL/MOOC courses¹ (Table IV.1)

Contact hours per semester	Number of credits
40-44	3
28-32	2
12-16	1

Table IV.1: NPTEL/MOOC credit calculation

For every additional 8 hours per course above the higher limit in each row, 1 credit may be added. For example, see Table IV.2.

Actual work hours per semester as mentioned in the certificate/ course brochure	Credits to be allotted
24 (16 + 8)	2
20 (16 + 4)	1

Table IV.2: NPTEL/MOOC credit calculation for additional hours

Note: No flooring or ceiling will be applied compared to regular courses offered by IIT Goa

¹This follows the new credit system, which can be easily extended based on Annexure III

Glossary

- APS** Annual Progress Seminar. 7, 8, 25
- AU** The Academic Unit such as a program, a department, a school, or a center where the Ph.D. student is enrolled. 3, 4, 6, 9, 11, 17, 24
- AY** Academic Year, e.g. AY 2020-2021. 24
- CPI** Cumulative Performance Index. 7, 17, 18, 26
- CSIR** Council of Scientific and Industrial Research. 21
- DA** The doctoral advisor or supervisor of a student enrolled in a Ph.D. program. Doctoral Advisor and Supervisor are used interchangeably. iv, 4–9, 21, 22, 24
- DC** The Doctoral Committee of a Ph.D. student. iv, 8, 9, 11, 13, 19, 24
- FA** The Faculty Adviser of a student. 4–6, 21, 22
- PPGC** The Program Postgraduate Committee. 9
- SOAS** State Of the Art Seminar. 11, 25
- SPGC** The Senate Postgraduate Committee. ii, 6, 8, 15, 18, 19, 22
- SPI** Semester Performance Index. 7, 26
- TA** Teaching Assistantship. 2, 18
- UGC** The University Grants Commission. 21