### **INDIAN INSTITUTE OF TECHNOLOGY BOMBAY**

### **Rules and Regulations**

# Ph.D. Programme



**Academic Office** 

2025-2026

July, 2025

#### Introduction:

Rules are classified into three separate categories as follows: (i) those which may be implemented within a department by DUGC/DPGC, (ii) those that require a decision at the level of A/Dean AP, or UGAPEC/PGAPEC, based on recommendations from the departmental bodies (iii) those that need to be discussed in the Senate for a decision

Therefore, rules are colored with one of three colors.

- 1. The color green indicates that the final authority for the rule is the Convener, DPGC.
- 2. The <u>color yellow, and underlined</u> means that the final authority is <u>Associate</u> <u>Dean(AP)/Dean (AP).</u>
- 3. The color yellow, without an underline means that the Convener, PGAPEC is the authority.
- 4. The color pink means that the final authority is the Senate.
- 5. The rule which is uncolored, is to be implemented strictly.

Any application pertaining to the rule may be sent to the appropriate authority.

### List of departments/centres/schools in Ph.D. :

Programme	Departments
Ph.D.	1. Aerospace Engineering, 2. Biosciences and Bioengineering, 3. Chemical Engineering, 4. Chemistry, 5. Civil Engineering, 6. Climate Studies, 7. Computer Science and Engineering, 8. Industrial Design Centre, 9. Earth Sciences, 10. Educational Technology, 11. Electrical Engineering, 12. Energy Science & Engineering, 13. Environmental Science and Engineering, 14. Geoinformatics and Natural Resources Engineering, 15. Humanities and Social Sciences, 16. Industrial Engineering & Operations Research, 17. Management, 18. Mathematics, 19. Mechanical Engineering and Materials Science, 21. Nanotechnology & Science, 22. Physics, 23. Policy Studies, 24. Systems & Control Engineering, 25. Technology and Development, 26. Urban Science & Engineering, 27. Digital Health, 28. Machine Intelligence and Data Science 29. Economics

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#### INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

#### **RULES AND REGULATIONS**

#### Ph.D. Programme

As a result of the sound research base and extensive infrastructural facilities available, the Institute offers a Ph.D. Programme in a wide range of areas in Engineering, Science, Design and Humanities & Social Sciences, Management. The broad objectives of the Ph.D. programme are: to keep pace with the expanding frontiers of knowledge and to provide research training relevant to the present social and economic objectives of the country.

The academic programme leading to the Ph.D. degree is broad-based. It involves a minimum course credit requirement and a research thesis. The institute also encourages research in interdisciplinary areas through a system of joint supervision and interdepartmental group activities. The presence of a strong research oriented faculty provides excellent opportunities for such programmes. The Institute undertakes sponsored research and development projects from industrial and other organizations in the public and private sectors.

Facilities for research work leading to the Ph.D. Degree are available in all the Science, Engineering, Design and Humanities & Social Sciences, Management departments. In addition to the facilities available in the laboratories and Workshops of his/her own department, a Ph.D. scholar has access to the central facilities available elsewhere in the Institute also. Several departmental and Institute-level seminars are held throughout the year. A large number of distinguished scientists and engineers both from India and abroad, visit the Institute to deliver lectures and hold discussions with the research groups. The Ph.D. students thus get ample opportunities to pursue their research programmes in a truly stimulating environment.

#### Ph.D. Rules and Regulations

#### **Ordinances**

The Ordinances of the Institute shall take precedence over the Rules in the matter of any dispute.

#### O.D. 1

- a) A student will be considered by the Senate to be eligible for registration for the degree of Doctor of Philosophy on his/her making an application in the prescribed form provided he/she has obtained M.Tech. degree of this Institute or an equivalent qualification by virtue of an examination.
- b) A student who possesses an M.Tech./M.Phil. degree or equivalent qualification is not ipso facto eligible for registration but shall be required to fulfill the minimum credit requirement under an approved programme of studies.

#### O.D. 2

- a) The Degree of Doctor of Philosophy may be conferred on a student subject to the following conditions:
  - i) Research work has been carried out at the Institute under the guidance of Supervisor(s) for at least two years in the case of all students (except external students) and three years in the case of external students after their date of registration on a topic duly approved by the Senate.
  - ii) The thesis submitted by the student is required to be recommended for the award of the Ph.D. degree by two external referees and by the Board of Examiners constituted for the viva-voce examination.
- b) Notwithstanding the provision of O.D.2 (a), a student registered for the degree of Doctor of Philosophy may be permitted to carry out a part or the whole of his/her research work outside the Institute in a factory, laboratory, workshop, worksite or other research centres duly approved for the purpose by the Institute.

#### O.D.3

The degree of Doctor of Philosophy shall not be conferred as an ad eundem degree.

#### **O.D.4**

Notwithstanding the provisions of O.D.1, the Senate will consider the registration for the degree of Doctor of Philosophy of a student who has obtained the B.Tech./M.Sc./M.A. degree or an equivalent qualification by virtue of an examination in a subject duly approved by the Senate, and has successfully completed the minimum prescribed credit requirements under an approved programme of studies.

#### O.D.5

Institute Faculty, Research Assistant, Technical Assistants or any other duly approved category of Institute Staff may be registered for the degree of Doctor of Philosophy under the provisions of O.D.1 and O.D.4.

#### **Rules and Regulations**

The Institute offers facilities for work leading to the degree of Doctor of Philosophy (Ph.D.) in various departmental and Interdisciplinary research areas. Extracts of the Rules and Regulations governing the Ph.D. programme are given below:

#### REGISTRATION

- 1. On joining the Institute every student is required to plan his/her academic programme in consultation with a Faculty Advisory Group of the academic Unit (Department/Interdisciplinary Programme/ School/ Centre in which the student is admitted. Details of the academic requirements of this programme and details of courses available are given in the bulletin. The bulletins are available on the website of each academic unit.
- 2. The registration for each semester is carried out through the computerized "Online Registration" programme. This registration is mandatory for all students, and they must register themselves on the prescribed dates announced from time to time. Every student must register in each semester until he/she completes the programme.
- 3. All students have to clear the Institute and Hostel dues before Registration.
- 4. IIT Bombay follows a semester system, hence registration at the beginning of each semester is mandatory for every student till he/she completes his/her programme of study. If a student does not register in a particular semester without prior permission of the PGAPEC, he/she ceases to be a student and the admission is <u>liable</u> to be cancelled.
  - Further, if a student does not register for <u>TWO</u> consecutive regular semesters, the admission will be cancelled by the PGAPEC suo moto.
- 5. The Faculty Advisory Group is authorized to carry out the course registration and also adjustments as specified later.
- 6. A student is not permitted to re-register for a course, which he/she has undergone and in which he/she has secured AU, DD or higher grades, except for students who are under Academic probation and opt for grade improvement. (Ref. Rule R.4.13)
- 7. Any student who concurrently registers for any postgraduate degree at another organization shall be automatically de-registered at the Institute.

### 8. Submission of final year mark sheets/provisional certificates of their qualifying degree by the Doctoral students

- a) All Postgraduate students should ordinarily submit their certificates latest by **September / February** when admitted in the **Autumn / Spring Semester**, of a given academic year, respectively, after joining the Institute.
- b) The students who are unable to submit their certificate by these dates, should apply for extension along with an undertaking stating the due date for submission, giving proper reasons on prescribed form developed for the purpose.
- c) Even if a student does not submit the certificate until the commencement of the Semester end examination, he/she would be allowed to appear in the examination. However, the results of such a student shall be withheld until the required documents are produced.
- d) Cases of students who do not submit the certificates after the first semester will be reported to the Dean (AP) and the Director for further consideration and decisions/actions.

#### **COURSE ADJUSTMENTS**

Within the period prescribed in the Academic Calendar, a student can substitute one or more courses by others. For this purpose the student has to carry out Course Adjustment in consultation with his/ her Faculty Advisory Group.

#### R.1. Admission

**R.1.1: Admission categories** (Amended as resolved in 141<sup>st</sup> meeting of the Senate held on 11.3.98)

Student Status: The Status of the students admitted to the Ph.D. programme shall be classified under any one of the following categories:

#### FULL TIME RESEARCH SCHOLAR

- i) Teaching Assistantship (TA)
- ii) Teaching Assistantship through Project (TAP)
- iii) Govt./Semi Govt. Fellowship Award (FA) QIP, CSIR, UGC, DAE, DST, DBT, NBHM, etc.)
- iv) Sponsored Candidates (SW)
- v) Self Financed (Indian Nationals/Foreign Nationals/Study Leave (SF)
- vi) Foreign Nationals with Indian Council for Cultural Relation Award (ICCR)

#### PART TIME RESEARCH SCHOLAR

- i) Institute Staff (IS), for Institute Staff of IIT Bombay
- ii) Project Staff (PS), for Project Staff of IIT Bombay
- iii) Research Assistantship (RA)
- iv) Research Assistantship through Project (RAP)
- v) External candidates, sponsored by recognized R & D organizations (EX)

vi) College Teacher: Candidates working in Colleges / Educational Institutes (CT)

For more details regarding the above categories, kindly refer Ph.D. information brochure on Institute portal. (http://www.iitb.ac.in/newacadhome/phd.jsp)

#### R.1.2: Temporary Withdrawal from/Leaving the Programme

- a) If a student leaves the programme any time within the first two years without prior permissions of the Senate, he/she would forfeit his/her student status.
- b) If a student withdraws from his/her Ph.D. programme any time without intimation (within the first two years) after admission, his/her student status ceases and he/she would not be readmitted with any weightage for the credits acquired the period of stay.
- c) In case a student wishes to temporarily withdraw from his/her Ph.D. Programme, he/she may do so only after a period of two years following his/her date of **Confirmation of Registration** with prior permission of the Senate. The application for temporary withdrawal must be endorsed by the Ph.D. Supervisor(s) and the Postgraduate Committee (PGC) of the academic unit in which the student is registered. Temporary withdrawal could be granted for, upto one year (two semesters) initially. Extension of the duration of withdrawal beyond the period of one year would normally not be encouraged, and could be granted by the Senate on recommendation by the PGAPEC, only under circumstances which the PGAPEC deems to be genuinely extraordinary. The period of temporary withdrawal will not be counted, when counting the number of semesters of Ph.D. registration already completed by the student. (Amended as resolved in 196<sup>th</sup> Senate held on 23-09-2009)

"The temporary break can not be granted after pre-synopsis presentation" (Ref. 260<sup>th</sup> Senate)

- d) A Research scholar, if recommended by DPGC/IDPC, recognised by PGPC and approved by Senate, may be allowed to change his/her status to "external student" earlier than 2 years if,
  - (i) He/she has completed all courses.
  - (ii) He/she gets a sponsorship certificate from the organization (recognised by PGPC) he/she joins and
  - (iii) He/she is able to get a suitable local supervisor to act as guide in the broad area of research approved by the DPGC/IDPC. The student is required to complete all the formalities regarding the change of status within one year of leaving the Institute.
- e) Kindly note that the period of temporary withdrawal/semester break, which is leave without fellowship, will be counted towards the tenure of the fellowship the student is availing.
- f) "The temporary break can not be granted after pre-synopsis presentation"

#### R.2. Eligibility for Admission

### R.2.1. : Minimum Qualification for Admission (General eligibility criterion for Admission in all Academic Units)

For more details regarding the above, kindly refer Ph.D. information brochure on Institute portal. (http://www.iitb.ac.in/newacadhome/phd.jsp)

#### R.2.2: Change from M.Tech. to Ph.D.

If a particular student who is pursuing a full time M.Tech. Programme at the Institute fulfills the minimum qualifications prescribed for admission to any specific Ph.D. programme of the Institute and wishes to change over to that Ph.D. Programme, he/she may be permitted to do so provided he/she has obtained an SPI of 9.00 or above after having registered for **full** credits of course work in the first semester (See M.Tech. rules MR 2.1 (2) and MR 2.1 (3)).

#### Note:

The student(s) shall apply for the change over by the end of the first semester through the DPGCs/IDPCs/PGCs, will forward the application with due recommendations to the PGAPEC for consideration.

#### R.2.3: Change from one programme to another (Ref. 141st Senate Meeting)

The following procedure is to be followed for change from one programme to another.

- These Transfers will be considered on a case-to-case basis.
- ii) Request for a change of PG programme should come from the student and should be endorsed by the Supervisor/RPC.
- The application for consideration for admission to another PG programme should be routed through the Postgraduate Committee of the Dept./Group/Centre/ School in which the student was originally registered. It must also be recommended favourably by the Postgraduate Committee of the academic unit (Department/ Centre/ School/ Interdisciplinary Progamme) to which the student wishes to be admitted.
- iv) The candidates should satisfy all the academic requirements for the award of the degree for which he/she is being considered.
- v) DPGC/IDPC/PGC may recommend the time limits for submission of Dissertation/Thesis, if required.
- vi) The request will then be considered by PGAPEC and put up for subsequent approval by the Senate, if the PGAPEC recommends the change.

### R.2.4 : Concurrent registration of any PG degree at another Organization by any Student (Ref. 262<sup>nd</sup> Senate)

"Any student who registers concurrently for more than one regular fulltime programmes at IIT Bombay OR registers concurrently for a regular fulltime programme at IITB and at any another Institute/organisation, shall be automatically de-registered from all the registered programmes at IIT Bombay."

#### R.3. Pattern of Courses and Credits

The courses offered for the Ph.D. Programmes may be: Lecture Courses, Laboratory Courses, Design Courses, Seminars, courses pertaining to Communication skills.

#### R.3.1 : Course Credit Structure (LTPC)

The credit for a course depends upon the contact hours and self-study hours associated with it and is obtained by adding all these hours. The credits for all the available courses are indicated in the Courses of Study Bulletin.

#### R.3.2: Credit Seminar

A Seminar shall satisfy the following conditions:

- a) Each seminar shall carry four credits.
- b) The Seminar shall be treated as a course for the purpose of registration and evaluation.
- c) The Seminar co-ordinator appointed by the DPGCs/IDPCs/PGCs shall arrange the seminars and forward the grades awarded by the panels of examiners to the Academic Office by the end of the semester.
- d) A student shall not take more than two Seminars during the entire Ph.D. Programme.

# R.3.3 "Communication Skills" Course (PP/NP course) (Ref:165<sup>th</sup>, 205<sup>th</sup> 216<sup>th</sup> & 231<sup>st</sup>, 245th & 249th Senate meeting)

- a) This course is compulsory for all Ph.D. students.
- b) Ph.D. students are normally required to clear the Communication Skills course within the first two semesters.
- c) This course is an addition to the minimum course credit requirement prescribed by the DPGCs/IDPCs.
- d) Exemption from doing Communication Skill course may be given to those students who have completed their qualifying degree programme with Communication Skill course from an IIT. This exemption shall be given only if the Communication Skill course had been completed in the last five years of his/her joining the PhD programme.
- e) The award of the degree is subject to obtaining a PP grade in this course.

### R.3.4 Requirement of no. of students to offer a course in a semester (Ref 229<sup>th</sup> Senate Meeting)

Minimum of 5 students should be registered in a course to be run as a Department/Institute Elective course. If less than 5 students are registered at any given point of time, the concerned DPGC/Head of Academic units may take a decision on case to case basis.

Even a single (1) student if register for 'Minor' course, the course is required to be offered.

### R.3.5 "Gender in the Workplace" - GC 101 Course (PP/NP course) (Ref : 249<sup>th</sup> & 254<sup>th</sup> Senate Meeting)

- 1. This is a non-credit Institute core course having 0 credit. The course is compulsory to all students.
- 2. No grade points are associated with this course and performance in this course will not be taken into account in the calculation of the performance indices SPI/CPI.
- 3. The course is on an online mode of delivery and will not be more than 3 hours, at a stretch.
- 4. The award of degree will be subject to obtaining the "PP" grade in this course.
- 5. Students are required to complete the course in their first semester.
- 6. Students who failed to complete the course in the above mentioned time period, will be awarded 'NP' grade which will reflect in the transcripts like any other courses, with 'NP' grade.
- 7. Students who are not admitted to a degree programme, GC 101 is not a mandatory requirement, such as, HBNI, Visiting students.

# R.3.6 Teaching Assistant Skill Enhancement & Training (TASET) Program – TA 101 (252<sup>nd</sup> & 255<sup>th</sup> Senate meeting)

#### Overview:

TASET program is designed to introduce TAs to their tasks and responsibilities and enhance their skill set. The program will also guide students in identifying and addressing challenging situations they may face as TAs.

#### **Guidelines for TA 101:**

- 1. To exclude the following Masters' Programmes from the mandatory requirement: 2 Yr M.Sc., MBA, EMBA, MEng, MDP and e-PGD.
- 2. To exclude visiting students from this requirements.
- 3. Only one course TA 101 in the self interactive mode on "Moodle" (same as GC101) to be offered.
- 4. Grades (PP/NP) for TA 101 to be auto reflected on ADMS after successful completion/non completion.

- 5. Student will be auto registered/have to register the TA 101 course in their first semester. Students should preferably complete the TA 101 course in their first semester. If not completed, will be auto registered/have to register the course in their next semester, till they complete it and awarded "PP" grade.
- 6. Students who fail to complete the course or failed in the course, will be awarded 'NP' grade which will reflect in the transcripts like any other courses, with 'NP' grade, till the student completes it and awarded "PP" grade.
- 7. Completion of TA 101 to be applicable for all PG and UG DD (B.Tech.+M.Tech., B.Des. +M.Des., B.S.+M.S.) students from batch 2022 onwards. However, UGTAs from earlier batches who perform TA duty for various UG courses, are required to pass the moodle part of TA 101 to apply for doing TA duty and receive their UGTA-ship from Spring Semester 2022-23 onwards.
- 8. PhD students (paying non-concessional fees and who joined before 2022) must pass moodle part of TA 101 in order to apply for doing TA duty and seek fee concession. This is also effective from Spring Semester 2022-23 onwards.
- 9. PhD students (paying non-concessional fees and who joined before 2022) must pass moodle part of TA 101 in order to apply for doing TA duty and seek fee concession. This is also effective from Spring Semester 2022-23 onwards.
- 10. On non-completion of TA 101 or having 'NP' grade in TA 101 by the student, the continuation of TA duty and release of TA/stipend will be decided by the respective academic units. The student is to be awarded the degree even though the student may not have completed TA 101 or has 'NP' grade.

### R.4. <u>Course Credit requirements and Registration for courses</u> (Ref. 260<sup>th</sup> Senate)

All students in the Ph.D. programme are required to acquire the prescribed credits through course work, which shall normally be completed:

- a) Preferably within one semester from the date of joining by the students having M.Tech. or equivalent qualification, but not later than two semesters. and
- b) Preferably within two semesters from the date of joining by the students having B.Tech./M.Sc./MA or equivalent qualification, but not later than four semesters.

### R.4.1: Applicable to students with M.Tech. or equivalent degree (Amended: 136<sup>th</sup> Senate meeting)

- a) The credit requirements for students having M.Tech./M.Phil. or equivalent qualification, will be a minimum of 16 credits i.e. 2 courses and a seminar and maximum of 22 credits. The courses could be taken in any academic unit of the Institute (Department/ Centre/ School/ Interdisciplinary programme).
- b) The students may earn upto a maximum of 4 credits through seminars.

### R.4.2: Applicable to students with M.Sc./M.A. or equivalent degree and admitted to Ph.D. programme in Science discipline

- a) The credits requirements for students having M.Sc./M.A. or equivalent qualification admitted to a Science Department shall be 34 to 46 credits, including seminar course. The courses could be taken in any academic unit (department/ centre/interdisciplinary programme/ school) in the Institute.
- b) The students may earn up to a **maximum of 8 credits through Seminars**, which should be spread over two semesters.

### R.4.3. : Applicable to students with B.Tech. or equivalent degree and M.Sc. or equivalent degree admitted to Ph.D. programme in Engineering discipline

- a) The credits requirements for students having B.Tech. or equivalent qualification shall be 44 to 56 credits, including seminar course. The same number of credits should also be earned by students with M.Sc. degrees of equivalent qualifications admitted to the Ph.D. programme in any one of the Engineering disciplines.
- b) The students may earn up to a maximum of 8 credits through Seminars, which should be spread over two semesters.
- c) The students may also register for a R&D project to complete credits.

#### R 4.4: Applicability to Specific departments

#### R.4.4.1: Applicable to students of Bioscience and Bioengineering Engineering

The specialization-wise and student's qualifications-wise credit requirements can be decided and administrated by the Department subject to minimum course credit requirements as prescribed by the Institute norms. Students should be informed about the requirements at the time of joining the programme. The completion of the required coursework should be checked by the concerned academic unit (BSBE Department), while forwarding the application for confirmation of registration (Ref: 183<sup>rd</sup> PGPC meeting).

### R.4.4.2 : Applicable to students of School of Management (Amended : 186<sup>th</sup> Senate meeting)

The course requirement for students entering with an M.Mgt. or an equivalent degree should be a minimum of 40 credits and maximum of 64 credits. For all other students the course requirement would vary between 52 to 64 credits.

Candidates who register for the minimum credits should complete them within two semesters as per rule, whereas students who have been assigned course credit requirements more than minimum, may be considered on a case by case basis by the PGC of the School. Their time period of completion of coursework may be appropriately recommended to the PGAPEC. However, the total period admissible for completing the programme will remain unchanged in all cases.

#### R.4.4.3: Applicable to students of IDC (Ref: 253rd Senate Mtg.)

Degree		Credits		
	Design- related degrees	MDes, MFA, MArch, MURP, PG Diploma of NID	Min. 20 credits	
Post- graduate	All other degrees		Ph.D. Committee may ask to do additional design courses, up to a maximum of 44 credits.	
	Design- related degrees	B.Des., BFA, B.Arch., UG Diploma of NID	Min. 44 credits	
Under- graduate	All other degrees		Ph.D. Committee may ask to do additional design courses, up to a maximum of 56 credits.	

#### R.4.5.: Reduction in Course Credit requirement

This rule applies to students who have a coursework requirement of two semesters. The DPGCs/IDPCs shall carefully examine any case of reduction in course credits and recommend such cases to the PGAPEC, giving appropriate justification in terms of any relevant post B.Tech./M.Sc./M.A. or equivalent qualification or proven capacity for independent research. While approving the cases of students who have been recommended by the respective PGCs/IDPCs for reduced course credits, the reason for prescribing such reduced course credits shall be placed by the PGAPEC before the Senate for information. In no case shall the reduced credits requirements be less than 24 credits.

#### R.4.6 : Minimum/Maximum Course credit registration in a Semester

The **full-time students** shall register through their respective Faculty Adviser(s)/ Supervisor(s) for not less than 18 credits in the first Semester of the course programme if the total credits required are 18 or more. However, staff members of the Institute admitted to Ph.D. programme shall register **for not more than 18 credits in the first Semester** of the programme if the total credits required are 28 or more. Other students with course credits requirements below 18 credits shall register through the Supervisor(s) for the entire prescribed credits in the first Semester itself.

#### R.4.7. : Language Courses

A language course shall not form a part of the minimum requirements of credits, prescribed for students with M.Tech. or equivalent qualification.

#### R.4.8.: Extension for Commencement of Coursework

Students who are unable to commence their course programme during the Semester in which they have been admitted should apply to PGAPEC through DPGC/IDPCs/PGCs and obtain permission to commence their course work in the following semester.

#### R.4.9: The procedure for registration of courses

The procedure for registration of courses shall be as follows:

- a) The students, after payment of prescribed semester fees, complete their registration on-line in consultation with the faculty advisor(s)/ Supervisor(s) in the academic unit. Such registration is required to be approved by his/her faculty advisor/ Supervisor. (Ref. 235<sup>th</sup> Senate meeting)
- b) The Faculty Advisor shall be competent authority to approve the course registration in all cases.
- c) The students, in consultation with the supervisor/faculty advisor, can carry out course adjustment within the time limit provided in the Academic Calendar.
- d) The DPGC/ IDPC/ PGC shall finalize the course programme of the students in consultation with the Supervisor(s).
- Recommendations, if any, about reduction of course credits shall be sent to PGAPEC by DPGC/IDPC/PGC in the beginning of the I or II semester along with the applications for registration for due approval.
- f) The Academic Office shall inform the PGAPEC of any discrepancy in the Registration. However, the students should ensure on their own that they comply with the credit requirements listed under R.4.1, R.4.2, R.4.3, R.4.4, R.4.4.1, R.4.4.2. R.4.4.3 above.
- g) The PGAPEC shall approve the course programmes of all students after due scrutiny.

#### R.4.10 : Adjustment of Course(s)

A student can add to his/her academic load, one or more courses not registered for earlier or substitute one or more courses by others by filling the Course Adjustment Form, within the first two weeks from the commencement of classes provided the course credit requirements as prescribed under R.4.1, R.4.2, R.4.3, R.4.4, R.4.4.1, R.4.4.2, R.4.4.3 remain unchanged.

#### R.4.11 : Dropping of course(s)

A student may drop courses for which he/she may have registered if the academic load for the given semester is found to be too heavy (Course Dropping Form). Such dropping is permissible till the date as given in the academic calender provided the credits requirements laid down in R.4.1,R.4.2, R.4.3, R.4.4.1, R.4.4.2 and R.4.4.3 are not violated.

### R.4.11 (i) Course Withdrawn grade (Ref. 221st meeting of the Senate)

After the last date of course adjustment, a student can drop course(s) till the last date of dropping, as announced in the academic calendar. Such courses will appear in the transcripts and final grade card with a 'W' grade (withdrawn grade). These courses will have no impact on SPI/CPI.

### R.4.12: Duration for Dropping of course(s) (Ref. 207<sup>th</sup> meeting of the Senate)

The last date for dropping a course by the student will be two weeks after the mid-semester examination for the semester-long courses and one week after the mid-semester examination for the half-semester courses. The last date for course drop will be included in the Academic Calendar.

#### Note:

The student shall complete the prescribed Course Adjustment Form (CAF) and Course Dropping Form (CDF) in consultation with the supervisor/ faculty advisor.

#### R.4.13 Grade Improvement (Ref 211th Meeting of the Senate)

- 1. A student in a PG Programme, where minimum CPI for coursework is 6.0, will be eligible for repeating a course for grade improvement if he/ she has a CPI less than 6.0 and has been permitted by PGAPEC to continue in the Programme on Academic Probation.
- 2. For Grade improvement, a student has to re-register in the course in a subsequent semester if the course is offered. The grade obtained in the re-registered course will supersede the earlier grade and the same will be reflected in the Semester Grade Card and in the Final Transcript.
- 3. The student can avail this option only for TWO courses in the entire programme and only ONCE for a specific course.

### R.4.14: Transfer of PG level course(s) completed under CEP to Ph.D. Registration (Ref. 210<sup>th</sup> Meeting of the Senate)

The transfer for PG level courses completed under CEP can be granted if

- i) The courses are deemed to be suitable for Ph.D. coursework by DPGC.
- ii) The courses have been completed within a period of two years immediately preceding the date of joining the Ph.D. programme.

Such students need to fulfill the residential requirement at the Institute.

#### R.4.15 : Summer Registration

Ph.D. students may be allowed to register for courses in the summer semester only under an 'Additional Learning (AL)' tag. Such courses cannot be re-tagged as "Elective", even later on.

# R.4.16 A) : Use of NPTEL/SWAYAM courses towards the partial completion of regular academic curriculum (245<sup>th</sup> Senate Meeting)

(1) Maximum of 12 credits of NPTEL/SWAYAM courses are allowed towards partial completion of the credit requirement of the programme, in lieu of Department / Institute Elective courses. Students, who are on Academic Probation can take these courses also in lieu of Core courses.

(2) Students, who are not on Academic Probation can take NPTEL/SWAYAM courses, in "Additional Learning" mode also.

The above (1 & 2) is allowed only on approval from DPGC.

### R.4.16 B): Mapping of Grades for courses completed through "NPTEL/SWAYAM" and "Exchange Semester in another Institution" (246th Senate Meeting)

Course(s) completed by student(s) outside IIT Bombay by means of NPTEL and / or SWAYAM and / or Semester Exchange, following due approval of DUGC / DPGC, will contribute only towards completion of credits. Grade(s) earned in such courses will not be considered for the SPI / CPI calculation. The transcripts will record such course(s) and the corresponding grade(s) as it is / they are. The students taking up courses outside IIT Bombay by means of NPTEL and / or SWAYAM and / or Semester Exchange shall be eligible for the award of Medals and Prizes.

### R.4.16 C): Credit Equivalence of NPTEL/SWAYAM courses with IIT Bombay courses (249th Senate Meeting):

- 12 Weeks NPTEL/SWAYAM courses would be typically considered equivalent to 6 credits at IIT Bombay. However, in some special cases, DUGC/DPGC/UGC/PGC may consider and approve 12 weeks NPTEL/SWAYAM course(s) equivalent to 8 credits at IIT Bombay.
- 2. 8 Weeks NPTEL/SWAYAM courses would be considered equivalent to 4 or 3 credits at IIT Bombay, depending on approval of DUGC/DPGC/UGC/PGC.

### R.4.16 D): Policy for registering/ award of grades for NPTEL/ SWAYAM/ Semester Exchange courses (Ref. 251st Senate)

- a) Registration for NPTEL/ SWAYAM courses: Students may register for these courses during registration window as per Academic calendar for that semester. Faculty Advisor can approve these registrations in consultation with DUGC/ DPGC.
- b) Registration for Semester Exchange Courses: Academic Units may register students for these courses as and when student returns from the FRN Institute, as per approval of DUGC/ DPGC.
- c) Grading- As per Academic calendar for that semester along with other courses.
- d) The grades for NPTEL/ SWAYAM/ Exchange semester courses will be allotted as they are by the head and the interface will be accessible through <head.\*@iitb.ac.in>.
- e) If no grades are allotted during the approved window, the course will be removed automatically from the registration of the students on the last date of Academic Activity, so that there will be no issue in calculating SPI/CPI of the student.
- f) ASC will send the reminders to the students for any non-receipt of grades including NPTEL/ SWAYAM/ Semester Exchange courses.
- g) An Interface may be created for Departmental offices to view the pending grades of their students.

#### 5. Course Assessment and Award of Grades

#### R.5.1: Grade Points

For every course taken by the student, he/she is assigned a grade based on his/her combined performance in all the assessments. These grades are described by the following letters and corresponding grade points.

AP (10 points [Grade is awarded to students with exceptional performance]), AA (10 points), AB (9 points), BB (8 points), BC (7 points), CC(6 points), CD(5 points), DD (4 points), and FF (0 points), FR (0 points), PP (Passed, 0 points), NP (not Passed, 0 points), AU (Passed, 0 points) DX (0 points) and W (0 points). **Minimum passing grade in a course is 'DD'.** Some courses are only associated with PP/ NP grades. In such courses, satisfactory completion is indicated by the award of the PP grade.

The minimum passing grade for all UG and PG courses is DD. However, PG students should acquire a minimum CPI of 6.00 at the end of each semester.

The grade "AP" indicates exceptional performance and is awarded only in the Course/(s) in which the number of registered students is more than 50. It should not exceed 2 % of the total strength of the particular theory or lab course. The grade "AP" is not awarded for 29 projects / seminars.

All grades (including FR, DX, W etc.) obtained by a student will be mentioned in the transcript. (Ref. 225<sup>th</sup> Senate Meeting)

#### R.5.2 : Failure Grades

The letter grades FF and FR shall be treated as failure grades. **Re-examination is** permitted for a course if the student obtains FF grade. After such re-examination if the student passes in that course, he/she will be awarded the maximum grade of DD\* in that course. If a student does not take or fails in the re-examination, he/she will be awarded the grade FR. (\*Ref.: 167<sup>th</sup> Senate Meeting).

**FR** grade will be awarded in case(s) where, in the opinion of the Instructor (panel of examiners in case of the Projects), the student has inadequate academic exposure to the course/has very poor performance in the in-semester and/or end-semester examinations.

A student getting a **FR** grade has to re-register for the same course if it is a core subject. If this course is an elective course, he/she may register for an alternative course as prescribed by the DPGC/IDPC/SPGC, without this being counted as an additional courses. **The faculty advisors and DPGC/IDPC/SPGC would exercise special care and assist the students in this regard.** 

### R.5.2.1: 'FR' grade for Academic Malpractice (232nd Senate Meeting)

(i) "FR" grade may also be awarded for Academic malpractices. Details pertaining to Academic malpractices are available at :

http://www.iitb.ac.in/newacadhome/punishments201521July.pdf

(ii) Academic Malpractices are severely dealt with. The details pertaining to Academic malpractices are available at :

http://www.iitb.ac.in/newacadhome/punishments201521July.pdf

#### R.5.3: Re-examination in a course

A student will be permitted to take the re-examination for a course where he/she has an FF grade provided the number of failed backlog courses (with FR grade) does not exceed the limit permitted i.e. At most two during the entire programme. (Ref. 167<sup>th</sup> Meeting of the Senate and 182<sup>nd</sup> Senate).

#### R.5.4 : Audit Course

A student wanting just an exposure to a course, without the rigors of obtaining a letter grade, can register a course in 'Audit' mode. A course can be audited provided the course is offered in the semester as a credit course for others, and there is no slot clash. Prior permission of the Instructor is required.

To complete a course in 'Audit' mode, the student has to fulfil the requirement as set by the course instructor, such as submission of assignments and minimum performances in insemester evaluations.

A student, on successful completion of the requirements of a course in 'Audit' mode, will be eligible for a 'AU' grade. The 'AU' grade carries zero grade point and is not included in SPI/CPI calculations. The 'AU' grade will be shown in the Transcript.

In case a student fails to complete the requirements of a course, registered in 'Audit' mode, instructor will not assign any grade and the student will be de-registered from the course. The same will be deleted from the student's registration, as it will be assumed that the course has been dropped by that student.

PG student can audit maximum TWO courses per semester.

#### R.5.5 : Additional Learning (Ref : 210 Senate Meeting, 237th Senate Meeting)

The students have an option of taking a course as "Additional Learning". These courses can be registered at the time of semester registration of courses. Registration for additional courses will require approval of the faculty advisor. "Additional Learning" tagged courses will be in addition to the minimum course credit requirement and will not effect the SPI/CPI, but the actual grades obtained will be shown in the transcript.

There will be one-time option of changing the tag of a course. The "Additional Learning" tagged courses can be re-tagged as "Department/Institute Elective" and vis-a-versa. "Core courses" cannot be re-tagged as "Additional Learning" or "Department/Institute Elective".

The option of permitting student to register a course as "Audit" is left to the course instructor."

#### R.5.6: II grades (Ref: 207th meeting of Senate)

The grade II shall be awarded to a student in a lecture/ laboratory course if he/she has satisfactory in-semester performance and has fulfilled the attendance requirement, but has not appeared for the semester-end examination. The student will be eligible for a make-up for the semester-end examination if the absence was due to medical reasons or extraordinary circumstances. For re-examination, the student will have to apply to the Academic Office. In case of absence due to medical reasons, the application should be accompanied by a medical certificate issued/ authenticated by IIT Bombay Hospital. In case of absence due to extraordinary circumstances, the supporting documents should be submitted. The Academic Office will decide whether re-examination is to be allowed, after consulting with UGAPEC/ PGAPEC (in case of medical reasons) and Dean AP (in case of extraordinary circumstances). In case a re-examination is allowed and is conducted, the instructor shall decide the final grade on the basis of sum of in-semester and the re-examination marks. The weightage of the re-examination would be the same as that of the final examination that the student has missed. In all other cases the II grade will be converted to FR grade.

#### R.5.7 : Seminar Grades

For the students who have submitted the seminar report in time, but the evaluation of which however could not be completed in time, the Seminar Co-ordinator shall award the grade II and shall forward the grade report to the Academic Office before the end of the semester. All such II grades shall be converted into suitable letter grades in due course of time, before one month following the end of the semester.

#### R.5.8: Non-submission of Seminar Report/Absent for Presentation

If a student either does not submit his/her seminar report by the prescribed date or he/she is absent for presentation on the scheduled date he/she shall be awarded FF grade unless he/she is given extension by the coordinator under exceptional circumstances.

R.5.9: Award of Grades in Seminar after obtaining 'FF' in earlier presentation (Ref. 167<sup>th</sup> Meeting of the Senate).

All students who get FF grade in Seminar shall 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.5.10: Class Attendance Rules

Attendance in classes is mandatory from the very beginning of the semester. Students who miss even a single lecture from among the first three lectures of a course, are liable to have themselves de-registered from the corresponding course. (Ref: 203<sup>rd</sup> meeting of the Senate)

**DX grade** (Ref: 235<sup>th</sup> meeting of Senate) - " 'DX' grade is awarded to students who have inadequate attendance as per following: IIT Bombay expects one hundred percent (100 %) attendance from its students. If the attendance of the student, as counted with effect from the first contact hour, falls below eighty percent of the total attendance expected, the instructor may award the student, a 'Drop due to inadequate attendance', 'DX' grade in that course. For the purpose of CPI calculation, the 'Drop due to inadequate attendance' Grade would, be treated as equivalent to a 'Course Drop' carried out on initiation by the student. In calculating attendance, no specific concession may be given for lack of attendance on Medical grounds. Further, if a student has 80% attendance or more, he/ she cannot be awarded the 'DX' grade."

The only exception to this rule are courses where the instructor has declared that no DX grade will be awarded.

The instructor may also reserve some weightage upto a maximum of 20%, for attendance and/or class participation.

### R.5.11 Compensatory time to PwD students (Ref: 239th Senate Meeting- effective from end semester examination of the Autumn Semester 2019-20)

Compensatory time is to be provided to all PwD students across the Institute during written examination.

For PwD Students, 'compensatory time' will not be less than 20 minutes per hour of examination for persons who are allowed use of scribe/reader/lab assistant. All the candidates with benchmark disability not availing the facility of scribe may be allowed additional time of minimum of one hour for examination of 3 hours duration. In case the duration of the examination is less than an hour, then the duration of additional time will be allowed on prorata basis. Additional time will not be less then 5 minutes and will be in the multiple of 5".

PwD students must inform the instructors in advance regarding their need for compensatory time during examination.

#### R 5.12 : End Semester Examination (257th senate meeting)

The semester-end examination is desirable. If the instructor requires any deviation from having semester-end examination for his/her course, he/she should obtain approval from the respective DPGC, giving the justification, before the beginning of the semester.

### R 5.13 : Disclosing the Evaluated Answer scripts after Semester-End Examination (259th senate meeting)

A course instructor will make arrangement for students to see all evaluated answer scripts, student submissions and other graded material before finalization of grades for theory as well as for lab courses as per dates published in Academic Calendar.

### 6. <u>Performance Requirements in Course Work for Qualifying to Register for the Ph.D.</u> <u>Degree</u>

#### R.6.1: Required to maintain a minimum CPI of 6.00 at the end of each Semester

The performance of a student in a semester is indicated by a number called the Semester Performance Index (SPI). The SPI is the weighted average of the grade points obtained in all the courses taken by the student during the semester.

**Example :** Suppose in a given semester, a student has taken five courses having credits  $C_1, C_2, C_3, C_4, C_5$  and his/her grade points in those courses are  $G_1, G_2, G_3, G_4, G_5$  respectively.

Then his/ her

$$C_1 G_1 + C_2 G_2 + C_3 G_3 + C_4 G_4 + C_5 G_5$$

$$C_1 + C_2 + C_3 + C_4 + C_5$$

$$C_1 + C_2 + C_3 + C_4 + C_5$$

SPI will be calculated (after re-examination, if any) on the basis of the final grades awarded AA, AB, BB, BC, CC, CD, DD and FR. The SPI is calculated up to two decimal places.

An up-to-date assessment from the time the student entered the Institute is obtained by calculating a number called the Cumulative Performance Index (CPI). The CPI is the weighted average of the grade points obtained in all the courses taken by the student since he/ she entered the Institute. It is calculated in the same manner as the SPI.

A student who obtains a fail grade (FR) in a course more than once, the grade points/credits will figure only once in the numerator as well as denominator, respectively, for the purpose of SPI/CPI calculations. (Ref. 228<sup>th</sup> Senate Meeting)

The updated SPI/ CPI will be shown in the transcript only after the last date of grade submission (project and course) as per the Academic Calendar. Till then, only the SPI/ CPI till previous completed semesters will be displayed. (241st & 246th Senate Meeting)

#### R.6.2: For students with credit requirement of 16 to 22 credits

- i) In the first semester, if a student fails in only one course and obtains the grade FF, he/she can avail of a re-examination in that course at the end of first semester. However, if he/she obtains more than one FF grade or an FR grade, he/she is not entitled for a re-examination.
- ii) The credit requirement as prescribed by the DPGC/IDPC/PGC must normally be completed at the end of the first semester but can be extended beyond the first semester if additional courses have been prescribed.

#### R.6.3: For students with credit requirement of more than 22 credits

- i) A student must not obtain a failure grade (FR) for more than one course in his/her entire course programme, else he/she has to quit the programme.
- ii) In a semester, if a student fails in only one course and obtains the grade FF, and if he/she has not obtained a failure grade (FF or FR) in the first semester then he/she can avail of a re-examination in that course at the end of that semester. However, if a student obtains more than one failure grade, than he/she is not entitled for a re-examination and he/she has to quit the programme.
- iii) In a given semester, if a student fails in only one course and obtains the grade FR (after a re-examination, if any), and if he/she has not obtained a failure grade (FF or FR) in an earlier semester then he/she will register either for the same course or for an alternative course in the next semester, as prescribed by the DPGC/IDPC/PGC.
- iv) The credit requirement as prescribed by the DPGC/IDPC/PGC must normally be completed by the end of the second semester.
- v) FR in additional learning course will not be counted towards discontinuation of the programme.

#### R.6.4: Students who obtains FF/FR grades as enumerated in R.6.2 & 6.3

All categories of students not fulfilling the requirements as enumerated in R.6.2 and R.6.3 are liable to discontinue their Ph.D. programme. The PGAPEC will take a decision in this regard after reviewing the cases of such students.

#### R.6.5: Additional Qualifier requirement for Confirmation of Ph.D. Registration

Some academic units (departments/ interdisciplinary programmes/ centres/ schools) prescribe qualifying examinations for the Ph.D. programme. These must be completed successfully prior to confirmation of registration.

Currently following Academic Units offers Qualifiers.

- 1. Chemical Engineering
- 2. Computer Science and Engineering
- 3. Bioscience and Bioengineering Engineering
- 4. Mathematics
- 5. Mechanical Engineering
- 6. Industrial Engineering and Operations Research
- 7. Systems and Control Engineering
- 8. Electrical Engineering
- 9. Civil Engineering
- 10. Centre of Studies in Resources Engineering
- 11. Energy Science and Engineering
- 12. Centre for Urban Science and Engineering

- 13. Centre for Machine intelligence and Data Science (CMInDs)
- 14. Koita Centre for Digital Health (KCDH)
- 15. IDC School of Design
- 16. Earth Sciences

#### R.6.6: Confirmation of Registration (Ref. 260th Senate)

For confirmation to Ph.D. programme, students are required to complete the required course work, as per the applicable requirement as mentioned in the rules R.4.1 to R.4.4.2 and qualify the Ph.D. qualifier, if any, as set by the concerned academic units.

Students are required to submit the Ph.D. confirmation form within 15 days from the date of registration of the semester following the completion requirement of course work or qualifier, if any.

The date of Confirmation to Ph.D. will be the date of registration of the following semester after successful completion of the required course work for confirmation to Ph.D. or the date of successful completion of Ph.D. qualifier, if any, whichever is later.

#### Confirmation to Ph.D. is necessary for :

- (i) Temporary break during the programme.
- (ii) Pre-synopsis report submission and presentation.
- (iii) Synopsis and Thesis Submission.
- (iv) Availing Exit option from Ph.D. programme.

### R.6.7: Additional courses after the confirmation of Registration (Ref. 168<sup>th</sup> Meeting of the Senate)

All Ph.D. students may be allowed to register for extra credit courses, after confirmation of registration by following the present rules for confirmation of registration i.e. SPI/CPI above 6.00, etc.

- a) The present procedure for confirmation of registration will continue.
- b) Extension of registration beyond the duration as specified in the rules will not be considered due to registration for extra credit courses.

Note: Student should register these courses either in audit mode or under additional learning tag.

#### R.6.8: Confirmation of Ph.D. Registration Date

Registration dates of all students shall be decided by the PGAPEC. The final approval to the registration shall be granted by the Senate.

#### R.6.9: Confirmation procedure

#### The procedure for confirmation of Registration shall be as follows:

- i) Each student, on completion of the course requirements and Qualifying Examination prescribed by DPGC/IDPC/PGC shall apply for confirmation of Registration.
- ii) The completed application form shall be forwarded by the DPGC/IDPC/PGC to the PGAPEC, which will consider this application and confirm the date of registration according to the rules R.6.1 to R.6.8 above, as applicable.

# R.6.10 : Academic Probation to the students having marginally lower SPI/CPI than the minimum required for continuation of their studies (Ref: 184<sup>th</sup>, 190<sup>th</sup> and 206<sup>th</sup> Senate Mtg.)

For students who are identified by PGAPEC as ineligible for continuation of the Doctoral Programmes, the following opportunity is available:

- a) PGAPEC will directly offer probation to the students who are found eligible as per the norms defined by PGAPEC, without waiting for the appeal from the student. However, the necessary declarations from the students and their guardians would still be taken as per requirements in a reasonable time, after grant of probation.
- b) In some cases, wherein, PGAPEC does not offer Probation to a student, an appeal can be made for probation via DPGC to PGAPEC by the students, which PGAPEC could consider on a case by case basis on its merit.
- c) Academic probation will be a one time exercise during the study programme of the students for the period of ONE semester and decided by PGAPEC in consultation with the Faculty Advisor and DPGC's.
- d) For the Academic Probation Semester, the students must obtain such SPI as to make his/her **course work** CPI greater than or equal to 6.0 immediately (excluding the dissertation- project work) on including the performance of the semester of Academic Probation. (Ref: 207<sup>th</sup> meeting of Senate)
- e) Financial Support during the period of Academic Probation in Ph.D. Programmes (New Policy) (Ref. 232<sup>nd</sup> PGPC Meeting)
  - i. All students on academic probation will continue to pay the tuition fees as applicable.
  - ii. Students getting any stipend (TA/TAP/RA/RAP/FA) will continue to get stipend against TA/RA duty.

#### 7. Supervisor/Co-supervisor

#### R.7.1 : Selection of Research topics, areas of Research

In each Department, applicants will be given, at the time of selecting the details of various research topics, areas proposed by various faculty members for Ph.D. programmes, so that they will have an opportunity to discuss those topic areas with the respective faculty members and thereafter, indicate their choice in order of preference. The applicants shall then be interviewed by a committee constituted by the DPGC/IDPC/PGC.

#### R.7.2 : Assignment of Research Supervisor

- a) All selected students shall be assigned tentatively to research supervisor(s) at the time of selection. However, a Doctoral (Ph.D.) student may opt to find a supervisor at the end of the first semester, if he/she so desires. The Head of the Department would act as supervisor until the student is assigned to a supervisor.
- b) Each external student shall have only one Supervisor in the sponsoring organization where he/she is employed and one or two at the Institute.
- c) The Research Programme and the specific area of research of a selected student shall be finalised by his/ her Supervisor (s) after mutual discussion.

All Research Scholars should be finally assigned to Research Supervisor (s) at the time of confirmation of Registration.

#### R.7.3: Change of Research Supervisor

- a) Change of Supervisor(s) under exceptional circumstances shall be permitted on recommendation of the DPGC/IDPC/PGC after obtaining the consent of (i) the student (ii) the present Supervisor(s) and (iii) the proposed Supervisor(s).
- b) If the research programme and/ or area of the work requires modification due to this change, the student's entire course programme requirement shall be examined by the DPGCs/IDPCs/PGC. If there is a change in the research programme and/or area of the work, the registration date may be revised, if found necessary.

# R.7.4: Alternate arrangement of supervisor when the main supervisor superannuates / proceeds on lien/sabbatical leave/deputation. (Ref. 262<sup>nd</sup> Senate)

- a) If the supervisor proceeds on lien/sabbatical leave/deputation for more than 3 months, the Co-supervisor will look into the involved academic / administrative activities. Else, the DPGC/IDPC/PGC shall make arrangement for alternate supervisor/s to look after the academic / administrative activities.
- b) The DPGC/IDPC/PGC may consider continuation of the original Supervisor on his/her return to the Institute after completion of lien/sabbatical leave/deputation.

c) If the supervisor superannuates / leave the Institute permanently, the Cosupervisor will look into the involved academic / administrative activities. Else, the DPGC/IDPC/PGC shall arrange new supervisor/s to his/her students. In case if the student has completed pre-synopsis and close to thesis submission, an 'Administrative supervisor' is sufficient.

All such arrangements made shall be forwarded to PGAPEC for prior approval.

### R.7.5: Number of Students assigned to the Supervisor (Ref.: 225<sup>th</sup> Senate Meeting held on 21-04-2016)

At any given time, the number of Institute research scholars (TAs and/or RAs) working with a supervisor **shall not exceed FIVE.** The DPGC/PGC of the academic unit can decide on the total number of research students of all categories working with him/her.

#### R.7.6: Research Progress Committee (RPC) (Ref. 251st Senate):

After the completion of the specified course requirements by a candidate, the DPGC/IDPC/PGC will constitute a Research Progress Committee (RPC) for all candidates in consultation with the Supervisor and Co-Supervisor(if any). The RPC should consist of the Supervisor, Co-Supervisor(if any) and two other faculty members, conversant with the field of research of the student, all from within the Institute.

In addition to the above, the RPC may include, if applicable and/or required, Co-Supervisor and/or member, conversant with the field of research of the student, from outside the Institute.

The names of the RPC members and any subsequent changes in its composition shall be communicated by the DPGC/IDPC/PGC to the PGAPEC for record. Normally one of the RPC member is expected to function as the internal examiner for the evaluation of the thesis. The RPC is expected to monitor the progress of the candidate until the completion of the programme.

# R.7.7 : Requirement of Co-supervisor for Faculty close to Superannuation (253<sup>rd</sup> Senate Meeting)

- 1. Faculty has less then 5 but more than 3 years to superannuate when taking a Ph.D. student (at the time of confirmation): Co-supervisor is mandatory, who has more than 5 years to superannuate.
- **2.** Faculty has less than 3 years to superannuate when taking a Ph.D. student (at the time of confirmation): Faculty can only be Co-supervisor.
- **3.** Faculty has less than 1 year to superannuate and has a student (already confirmed) without a Co-supervisor : A Co-supervisor must now be appointed, who has more than 5 years to superannuate.
- **4.** At the time of Viva-voce, if faculty (as Supervisor) has already superannuated : Cosupervisor will act as the Supervisor for administrative purposes.

#### R.8. Place of work, Progress and Duration

On the recommendation of the Supervisor(s) and the DPGCs/IDPCs/PGCs the Institute may allow the research work for the Ph.D. degree to be partially or wholly carried out at another organization with the following provisions:-

#### R.8.1: External Organization where a student can carry out the Research

- a) The external organization where a student wishes to carry out the research work partially or wholly shall have to be recognized by the Institute before such work is undertaken. Persons working in Institutions, which are affiliated to Universities where facilities for registration of postgraduate programmes exist are not eligible for registration as external students. The financial and other implications, if any, of such an arrangement should be finalised at the Institute level. The student, however, shall not be permitted to change his/her student status (as given under R.1.1) while working at such an organization.
- b) An external organization may be granted recognition by the PGPC as an approved place of work.
  - i. The recognition shall normally be given only for the purpose of the individual research project by a particular student.
  - ii. The details of research facilities available at the organisation shall be furnished by the student along with the application for admission to Ph.D. programme.
  - iii. The DPGC/IDPC/PGC shall examine the details given and may decide either to ask for further information, or even collect first hand information, if necessary, by deputing faculty member(s) to visit the organisation. Only when the DPGC/IDPC/PGC is fully convinced about the adequacy of the research facilities and the credentials of the external supervisor, it shall recommend the case to the PGPC.

#### R.8.2: Annual Progress Seminar (APS) – (Ref. 233rd/260th Senate Meeting)

(i) All PhD students are required to submit a report (APR – Annual Progress Report) and present a seminar (APS – Annual Progress Seminar), **every year from the date of joining,** to the research progress committee (RPC) in consultation with supervisor and cosupervisor (if applicable) till successful completion of presynopsis. Individual academic units may consider the last date of APR submission prior to the last date of APS presentation. Following is the schedules of APS presentation.

For students joining in Autumn semester: July to September of the year.

For students joining in Spring semester: December to February of the year.

(Refer academic calendar for specific dates of presentation)

(Note: Students who have not completed the course work / department qualifier criterion (if applicable) for presentation of Progress Seminar in the first year, shall submit Part D, instead of Part C, given in the online APS form.)

Students are required to present biannual Progress Seminar, after completion of 6 yrs (for students in Ph.D. programme) /7 yrs (for students in Dual Degree (Masters + Ph.D. programme) till the successful completion of the pre-synopsis.

To suit the specific requirement of a funding agency, students may apply to the convener, PGAPEC for a different but fixed schedule (for every year) for APS presentation.

(ii) In case of the conversion of M.Tech./M.Phil. students to the Dual Degree (M.Tech/M.Phil + Ph.D.) programme, the successful presentation / defence of the 'Research Proposal' will be treated as the APS in that academic year. (e.g. a research proposal submitted in April, 2017 will be the APS of July-September, 2017 and the student needs to present next APS in July-September every year starting with 2018). For such students, this will be considered as the FIRST APS.

#### R.8.2.1 : Continuation of Registration in PhD Programme

Successful completion of "PhD qualifier (if applicable)" and APS is mandatory for continuation of PhD registration and teaching assistantship.

#### R.8.2.2: Extension of APS

Extension of APS may be considered in exceptional cases only with prior permission. Application for extension must be submitted by the student using appropriate form through proper channel at least TWO WEEKS prior to the expiry of the APS schedule. Late fine of Rs. 750/- per week will be applicable for delay in APS presentation.

#### R.8.2.3: Panel for APS presentation (Ref. 251st Senate)

The panel for APS presentation should consist of supervisor, co-supervisor (if any) and two members of RPC (of which at least one faculty member should be from the Institute; other can be either within the Institute and/or outside the Institute), conversant with the field of research of the student. (Refer R.7.6).

The RPC member(s) may join APS through Video Conference on approval of DPGC/PGC. In case of unavoidable absence of RPC members, the DPGC/PGC may appoint a substitute.

#### R.8.2.4: APS Evaluation Report

The APS evaluation report in prescribed format must reach the Convener, PGAPEC through Convener, DPGC/PGC within FOUR working days after APS presentation. A copy of the APS evaluation report be made available to the concerned student by the respective Academic Units.

#### R.8.2.5: Performance in APS

- i. The APS evaluation report with "Unsatisfactory" and / or "Insufficient" remarks is treated as Poor Performance and will Suo moto call for a repeat APS within 3 to 6 months from the date of APS, as recommended by RPC / DPGC and approved by PGAPEC. Students, who have completed six years since the date of joining, will Suo moto need to repeat the Progress Seminar within 2 to 3 months in a similar instance.
- ii. The PhD registration of a student is **liable for cancellation on two consecutive**"poor performances" including repeat APS, at any stage of the programme.
- iii. Failure on the part of a student to present APS and/or Repeat APS, without prior permission of DPGC and PGAPEC makes his/her Ph.D. registration liable for cancellation.

(Note: For ii) and iii) recommendation of the DPGC, along with copy of the DPGC Minutes of the Academic Unit would be mandatory for cancellation of the Ph.D. registration of the student.) (Ref. 260<sup>th</sup> Senate)

#### R.8.2.6: APS and Pre-Synopsis Seminar: (Ref. 260th Senate)

- i. APS and Pre-synopsis seminar presentations are two separate events.
- ii. If a student fails to present the APS within the Senate approved APS schedule, he/she will not be eligible to present the pre-synopsis, till he/she presents the APS.
- iii. Student can present Pre-synopsis in lieu of APS, if presented within the Senate approved APS schedule (period as mentioned in the Academic Calendar and refer R.8.2).

Note: For students admitted to a dual degree programme (Masters + Ph.D.), the date of successful presentation of research proposal will be treated as the date of conversion from M.Tech/M.Phil./MSR to Dual degree programme (M.Tech./M.Phil./MSR + Ph.D.) and date of joining to the PhD programme.

#### R.8.3 : Guidelines for External students

- a) Every external student shall carry out a part of study pertaining to his/her research work residing at the Institute for a period, which shall in no case be less than one semester.
- b) Residential requirement must be fulfilled in the first two semesters for students with B.Tech./M.Sc./M.A. or equivalent qualification who have been advised to acquire 18 or more credits.
- c) Students with M.Tech./M.E. or equivalent qualification who are advised to acquire between 16 to 22 credits have to fulfill the residential requirement in the first semester only.
- d) Students sponsored by a local Organisation may, on the basis of an application recommended by DPGC/IDPC, be exempted from stay on the Institute campus while fulfilling the requirements under (a) above. However, the work under this rule shall be carried out during normal working hours of the Institute.

- e) The organization has to certify that the student has been fully relieved of normal duties/ granted leave during the period of the residential requirement.
- f) External students will be provided with hostel accommodation only during the semester(s) in which the residential requirement is fulfilled.

#### R.8.4: Minimum period of research for submission of thesis. (Ref. 260<sup>th</sup> Senate)

All students (except external students) have to carry out research in the Institute for at least a period of Four Semesters from the date of joining/date of conversion to the Dual Degree (Masters+Ph.D.) programme, before submission of thesis.

External students have to carry out research for at least a period of Six semesters from the date of joining/date of conversion to the Dual Degree (Masters+Ph.D.) programme, before submission of thesis.

### R.8.5 a): Period of Validity of Registration of the Ph.D. Programme (Ref. 260<sup>th</sup> & 262<sup>nd</sup> Senate)

The period of validity of Ph.D. registration is six years from the date of joining to the Ph.D. programme and 7 years for all Masters+Ph.D. programmes (conversions & admissions) from the date of joining to the masters programme.

The students are required to submit their thesis before the end of this period subject to the provisions of R.8.4 and R.6.6.

# R.8.5 b) : Extension of Registration of Ph.D. programme beyond Six/Seven years (Ref. 260<sup>th</sup> & 265 Senate)

- i. A student who has completed six years or more from the date of joining in the Ph.D. programme.
- ii. Seven years or more from the date of joining in Masters' programme for students who are converted to Dual Degree [Masters (MSC/Mtech/MPP) + Ph.D.] programme (with decoupling of dual degrees)
- iii. Seven years or more from the date of joining in the Dual Degree programme (M.Sc/MA+Ph.D.)

are required to apply for extension of registration at the time of APS presentation, if not able to present the Pre-synoposis. (Note: Submission of "Part-B" available in the form APS Report-cum-Extension of PhD registration is mandatory)

The student's registration (Ph.D. & Masters+Ph.D.) can be extended till maximum 8 years to all category of students, except External and College Teacher category of students. The Ph.D. registration for 'External' and 'College Teacher' category can be extended till maximum 10 years.

The registration of Ph.D. student shall be suo-moto cancelled after completion of 8 and 10 years (from the date of joining) as mentioned above.

#### R.8.5: c) Submission of synopsis and thesis from outside (Ref. 260th & 265th Senate)

Research Scholars/Staff who have completed their Pre-synopsis seminar and examination successfully, may be permitted by PGAPEC, on recommendation of the DPGCs/IDPCs/PGCs, to leave the Institute and submit the synopsis and thesis together from outside within a period of four months from the date of Pre-synopsis presentation provided they fulfill the provisions of all other rules. **Pls. refer rule R.9.1.b**.

### R.8.6 : Procedure to be adopted by students for research work involving human participation

Students whose research work involves human participation (either directly or indirectly), should obtain IIT Bombay Institute Ethics Committee (IEC) approval prior to 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 also e.g. DST, DBT, CSIR and ICMR. IEC approval is also a pre-requisite for such research work to be published in peer reviewed journals of repute. IEC approval cannot be taken retrospectively.

# R. 9 Synopsis and Thesis submission and Evaluation (amended on 05-1-2016 : Ref. Senate meeting no. 223<sup>rd</sup> held on 30-10-2015)

#### R.9.1: Pre-synopsis Seminar and Examination (Ref. 260th & 265th Senate)

Prior to the submission of the synopsis and thesis, a comprehensive internal assessment of the research work should be made by a panel appointed by the DPGC/IDPC/PGC in consultation with the supervisor(s). The panel must consist of supervisor, co-supervisor (if any) and two members of RPC (of which at least one faculty member should be from the Institute; other can be either within the Institute and/or outside the Institute), conversant with the field of research of the student. The Pre-synopsis seminar report to be submitted online only.

- a) The student must submit the draft thesis as the Pre-synopsis report at the time of Pre-synopsis presentation to the RPC. The RPC should certify that the draft thesis submitted by the student is ready for the final thesis submission within 4 months.
- b) The student must submit the synopsis and final thesis within 4 months of 'SATISFACTORY' pre-synopsis presentation. In case the student fails to submit it within four months from the date of successful presentation of pre-synopsis seminar, the registration of Ph.D. student shall be suo-moto cancelled. There will be NO REPEAT PRE-SYNOPSIS presentation.
- c) The RPC will assess the work through a pre-synopsis seminar and report. The student can submit the synopsis only if the panel is satisfied about the quality and quantity of the work for submission as a Ph.D. thesis.

- d) Details of the pre-synopsis seminar will be notified so as to enable interested staff members and students to attend.
- e) The Convener of the DPGC/IDPC/PGC will forward the pre-synopsis seminar evaluation report online to the Academic Office. List of Publications/ Conference arising out of the thesis/other outcomes, if any, are to be submitted along with the Pre-synopsis report.
- f) If the presynopsis seminar presentation is 'UNSATISFACTORY', the student should present the pre-synopsis seminar again within FOUR months. The Ph.D. registration of a student shall be suo-moto cancelled if, (i) student fails to present the repeat pre-synopsis within four months OR (ii) on two consecutive "UNSATISFACTORY" presynopsis presentations.

#### R.9.2 : Submission of Synopsis and Thesis

#### R.9.2.1: Format of Synopsis and Thesis

The synopsis & thesis should be written in the approved format (Guidelines available on the academic homepage).

#### R.9.2.2: Procedure before accepting Synopsis and Thesis by PGC

Postgraduate Committee (PGC) should take the concurrence of the Research Progress Committee (RPC) /panel for the pre-synopsis examination of the concerned Research Scholar before accepting the synopsis and forwarding it along with the panel of External Examiners. The RPC/panel for pre-synopsis examination should ensure that the presentation of the synopsis is of an acceptable standard and that the technical contents of the synopsis are representative of the contributions of the Ph.D. thesis being submitted.

# R.9.2.3: Submission of no. of copies of Synopsis and Thesis (238th Senate)

The synopsis should be submitted to the DPGC/IDPC/PGC and Two copies of thesis to the department office along with the prescribed forms for submission and certificates from the Accounts Section and the Hostel that there are no dues against the student. After approval of the DPGC/IDPC/PGC, the soft copy of the synopsis & Thesis and two hard copies of the thesis will be forwarded to the Academic Office along with the forms and the required certificates.

Soft copies (pdf files, with file size less than 8 MB) of the synopsis and thesis should be mailed to <aracad2@iitb.ac.in>.

# R.9.2.4 Patent is being/ has been filed. (Ref : 207th Meeting of Senate)

At the time of Synopsis/Thesis submission, the Supervisor should select one of the following options for evaluation of the thesis (included in the Form for submission of synopsis & thesis):

1) The thesis evaluation be processed immediately.

**OR** 

2) The processing of the thesis evaluation be taken up after a communication from the Supervisor or SIX months (whichever is earlier), as a patent is being /has been filed and there is a need to maintain the confidentiality of proprietary information.

**OR** 

3) The thesis be sent for evaluation after the Non-Disclosure Agreement has been signed by the examiner, and there is a need to maintain the confidentiality of proprietary information. The student has been informed that obtaining NDA from prospective examiners may delay the thesis evaluation.

# **R.9.2.5 : Required Certificates for submission of Synopsis & Thesis** (included in the Form for submission of synopsis & thesis)

- a) Certificate from the Convener, DPGC/IDPC/PGC that the pre-synopsis seminar examination has been completed satisfactorily.
- b) Certificate from the Student and Research Supervisor(s) confirming (i) that there is a prima facie case for consideration of the thesis, (ii) that the thesis does not contain any work which has been previously submitted for the award of any degree except to the extent of collaboration, if any, which may then be specified.
- c) Certificate of authorization from the Research Supervisor(s) for submission of the thesis.
- d) Certificate from Supervisor/Co-supervisor on Similarity Index report. [Ref. 265th Senate]

#### R.9.3: Panel of Referees (External Examiners) for Evaluation of Ph.D. Thesis

R.9.3.1: The DPGC/IDPC/PGC in consultation with the Supervisor(s) will recommend to the Chairperson, Senate or his/her nominee, a panel of External Examiners (Referees for thesis evaluation) and the names of the Chairperson (2 names) and Internal Examiner for the Ph.D. Viva-Voce.

The examiners (Referees for thesis evaluation) who are currently evaluating another thesis from IIT Bombay should not normally be included in the panel.

The Supervisor(s) should not have conflict of interest with the examiners while recommending their names for panel of examiners for thesis evaluation. [Ref. 265th Senate]

The following points be considered which may constitute towards 'Conflict of Interest':

- 1) Examiner is related to the Candidate/Supervisor/Co-Supervisor.
- 2) Examiner is from the same University/Institute/Organization of the candidate, where the candidate is employed.
- 3) Examiner is a collaborator / has co-authored a paper/ patent with the candidate on the current thesis.
- 4) Examiner was a Student/Supervisor/Co-Supervisor of the Supervisor/Co-supervisor in the last five years.
- 5) Examiner is currently holding an adjunct or emeritus position with IIT Bombay.

The thesis supervisor will opt for one of the following scheme (Scheme A or Scheme B) for submitting panel of external examiners.

#### Scheme A

- The DPGC/IDPC/PGC will give at least 8 names of external examiners (with at least 4 names from within India) for review of PhD Thesis. The academic office will request the external examiners to be reviewers for the thesis and after receiving acceptance, the thesis will be sent to examiners by academic office.
- The thesis will be sent to only 2 examiners out of the 8.

#### Scheme B

- The supervisor(s) of the student will write to potential examiners (approved by PGC of the department) asking them about their willingness to examine the thesis, if requested to by the institute. The draft text for such communication is available on the academic homepage. After obtaining the willingness of the examiners, 4 names of such examiners (with at least 2 names from within India) will be recommended by supervisor(s). The PGC approved list will be then sent to the academic Office.
- The Thesis will be sent to only 2 examiners out of the 4.

#### R.9.3.2: Selection of Examiners for evaluation of Thesis:

- A) From the panel of external examiners duly approved by the PGC, the Chairperson, Senate or his/her nominee will choose 2 names. Additional examiners will be contacted, if the need arises.
- B) The referees independently send the thesis evaluation report to the Senate through the Registrar of the Institute. The evaluation includes:
  - i. A critical survey and evaluation of the quality and quantity of the work as embodied in the thesis.
  - ii. Questions, if any, to be asked or points to be clarified at the viva-voce examination, and
  - iii. A definite recommendation as to whether the thesis is acceptable for the award of the degree of Doctor of Philosophy.

- C) If a referee in his/her report is not in a position to make a definite recommendation for the award of the degree, he/she is requested to assist the Senate in deciding whether the student is required to:
  - i. Make substantial revisions involving rewriting of one or more chapters without, however, doing any further research work.
  - ii. Completely rewrite the thesis, if the thesis, though not acceptable in the present form, reveals sufficient quality and quantity of work to warrant the student being given an opportunity for further research work and/or reinterpretation of results.
- D) The Internal Examiner of the Ph.D. thesis will be a faculty member of the Institute, who is a member of the RPC of the concerned student.

# R.9.4: Referees Evaluation Reports on PhD Thesis (Ref. 260th Senate)

# Referees Evaluation reports may have been marked in one of the following:

- The thesis be accepted in present form. : [a]
- The thesis be accepted after clarification of the minor points listed in my report, at the time of viva-voce. [b]
- The thesis be accepted after minor modifications in the thesis, as suggested in my report. The thesis need not be referred to an external referee again. [c]
- The thesis requires major revisions. The nature of the revisions are indicated in my report. It is recommended that the revised thesis be examined again by an external referee. [d]
- The thesis is rejected.[e]

Note: The Referees' report will be received in the academic office only. The academic office will send the copies of the referee reports to the Supervisor/Co-Supervisor and the Internal Examiner. The defence can be schedule only after obtaining the approval from PGAPEC for holding the defence, which will be intimated by the academic office. For scheduling of the defence, refer rule R.9.5 (below).

Cases of examiner's recommendations: Following 5 cases may arise on receiving the thesis evaluation report of the examiners. The PGAPEC will approve holding of defence in the following two cases [(i) and (ii)].

- i. If both the referees have marked the reports in "a" and/or "b": The defence can be held. In this case, the approval from the PGAPEC is obtained immediately on receipt of 2<sup>nd</sup> report. Kindly see the note above and (\*) below.
- ii. If one or both the referees have marked the reports in "c". The defence can be held. The approval from the PGAPEC is obtained only on receipt of the Internal Examiners' comments. Kindly see the note above and (+) below.
- iii. If one or both the referees have marked the reports in "d": The defence cannot be held, until the revised thesis is re-submitted. Kindly see the below (%).

- iv. If one referee recommends rejection (i.e. "e"), an opinion of a third examiner will be sought. The defence cannot be held, until the third examiner's report is received, marked in (a), or (b) or (c).
- v. If two referees recommend rejection of the thesis (i.e. "e"), 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 no later than 2 years from the date of intimation by the PGAPEC, after presenting a presynopsis seminar.
- (\*): In case of (i) above, the copies of reports will be sent to Supervisor(s) and Internal Examiner simultaneously along with the intimation of defence approval. The student will also be intimated of the same.
- (+): In case of (ii) above, the copies of both the reports will be sent firstly to Supervisor/Co-Supervisor. The Supervisor/Co-Supervisor shall intimate the students to contact him/her for the guidance on incorporating the suggestions/corrections that have been received from the examiner(s) in his/her report and to answer the queries/give response to the queries raised by the examiners.

The Supervisor/Co-Supervisor should submit to the PGAPEC, within one month from the receipt of the reports from the academic office, the detailed response, which may include the pointwise corrections made in the thesis and that all the points of queries raised by the examiner in his/her report have been addressed.

After receiving the response of the Supervisor/Co-supervisor, the reports of the referees and the responses of the Supervisor/Co-Supervisor will be sent to Internal Examiner to ensure that the corrections including minor modifications, revision suggested by the external referees have been/will be incorporated in the thesis and the responses are satisfactory. The Internal Examiner should submit his/her response/recommendations to the PGAPEC, within 7 working days from the date of receipt of the reports and Supervisor's/student's response received from the academic office.

The PGAPEC after receiving the responses submitted by the Supervisor/student and the recommendations from the Internal Examiner may approve the holding of the defence. The decision of the PGAPEC will be intimated to the Supervisor. If approved, the defence can be held.

(%): In case of (iii) above, the reports are sent firstly to the Supervisor/Co-Supervisor. The student is required to submit to the PGAPEC, the revised thesis within 6 months after incorporating the revisions to the satisfaction of the Supervisors, alongwith the Supervisor's response that the thesis has been revised according to the reports of the examiner. The revised thesis, the reports and the Supervisor's response are then sent to Internal Examiner. The Internal Examiner should certify the revisions have been incorporated in the revised thesis. The revised thesis will then be sent for further review by academic office.

The Senate shall, however be the final authority in deciding whether the thesis be accepted for the award of the degree.

#### R.9.5: Approval of holding the defence and Board of Examiners for Defence

PGAPEC will approve holding of the viva-voce examination (PhD defence) and Board of Examiners for defence.

The Academic office shall obtain the approval from the PGAPEC for holding of the defence. The defence can be scheduled only after obtaining the approval from PGAPEC, which will be intimated by the academic office to the Supervisor/Co-supervisor. Only after receiving the intimation from the academic office of the approval for holding of defence, the Supervisor/Co-Supervisor shall contact the members of the Board of Examiners and the student for scheduling the defence. The Supervisor/Co-Supervisor shall convey the date & time, mode (offline/hybrid/online) and venue of the defence to the academic office for further processing of the defence papers atleast two working days in prior.

- a) A student whose thesis has been accepted for the award of the Ph.D. degree will defend his/her work at an open viva-voce examination conducted by a Board of Examiners at the Institute.
- b) Viva-voce examination be conducted as soon as possible but preferably, within 8 weeks after the approval of PGAPEC for the same. Prior permission of PGAPEC is required for holding the defence beyond 8 weeks.
- c) An **external examiner**, from among the approved panel of examiners, is **required in the Board of Examiners** for the Ph.D. viva-voce Examination. However, the external examiner could participate in the examination by means of video conferencing in case he/she is not able to be physically present. The Chairperson of the Ph.D. viva-voce examination panel will certify the acceptance of the Thesis and successful conduct of the Ph.D. viva-voce Examination on behalf of the external examiner, when the external examiner participates through video conferencing/skype. The signature of the external examiner whose participation at the viva voce is through video conferencing/skype, on the defence report be made mandatory and the supervisor/academic unit must obtain the same. **(241st Senate Meeting)**
- d) The **Board of Examiners** will be appointed by the Chairperson, Senate or his/her nominee and it shall consists of:
  - i. A professor of the Institute, outside the department, as Chairperson;
  - ii. The research supervisor(s);
  - iii. A faculty member of the Institute conversant with the subject to act as the internal examiner; and
  - iv. One of the referees, who has reviewed the thesis (failing which a referee from the approved panel).
- e) The Board of Examiners will submit its report in the prescribed form to the Senate.

f) if any external supervisor is attending the defence of the student, the respective academic unit /concerned supervisor/co-supervisor is taking care and arranging for his/her TA/DA, accommodation and any other logistics, through Dept. /project fund. However, if any supervisor (IITB) requests to add the External supervisor name on the defence panel, will be considered by the Dean (AP) on a case-to-case basis. (Ref. 233 PGPC meeting)

#### R.9.6: Defence Report

- a) On satisfactory completion of the viva-voce examination, the degree may be conferred upon the student after approval by the Senate.
- b) If a thesis has been accepted but the student fails at the viva-voce examination, he/she may be permitted by the Senate Chairperson to re-appear for viva-voce examination again at a later date. The recommendations of the Board of Examiners conducting the viva-voce examination will be considered in taking a decision in this respect.

# R. 9.7 : Submission of Final copies of Thesis

- a) After successful completion of the Ph.D. Viva-voce examination, the student will submit the form of final submission of dissertation/thesis report to the Academic Office, within 2 months, from the date of defence.
- b) If the copies of thesis are submitted after the due date, a **fine of** per month from the due date of submission, till the date of submission will be levied on the student (Ref : 207<sup>th</sup> Meeting of Senate).

# R 9.8 Submission of Electronic form of Dissertation/ Report (Ref: 204<sup>th</sup> meeting of senate)

Dissertations/ Report needs to be submitted in electronic form to the Central Library. Due academic approvals of the final version of the Dissertations/ Reports should be obtained from the supervisor(s) prior to finalizing the archival version of the Dissertation/ Report.

The final transcripts/provisional degree certificate/final degree certificate will be issued only after receipt of the final copies of the Thesis.

### 10. Teaching Assistantship

#### R.10.1: Rate of Assistantship

The Institute research scholars will be paid scholarship at a rate in accordance with the directives from the appropriate authorities.

# R.10.2: Tenure of Assistantship

Institute research scholars are eligible to receive Assistantship for a maximum period of **FIVE** years as communicated by the MHRD (**Revised w.e.f. October, 2014**).

# R.10.3: Enhancement of Assistantship

- a) All Institute research scholars shall apply for enhancement of Fellowship two weeks before completion of two years from the date of joining. They shall submit five typed copies of summary of their work described in five to six pages, to the Convener, DPGC through their respective supervisor(s). A special committee either for each research scholar or for a group of them as may be found convenient, consisting of three or four members, including the Supervisor(s) shall be constituted by the DPGC/IDPC/PGC for this purpose. Each research scholar concerned shall give a seminar before this committee which will assess the candidates' work, progress and make suitable recommendations. The recommendations of the committee along with the application for enhancement of Fellowship of the research scholar should be forwarded by the DPGC/IDPC/PGC (comments, if any) to the PGAPEC within two weeks after completion of two years.
- b) Subject to satisfactory assessment, the candidates will be eligible for enhanced of Assistantship in the following conditions:
  - (I) with effect from the date of completion of TWO years from the date of joining/award of Fellowship and successful APS (in case APS is presented within the Senate approved schedule)
  - (II) with effect from the date of successful APS after completion of TWO years, from the date of joining/award of Fellowship (in case of APS being delayed/repeated beyond the Senate approved schedule).
- c) If in the opinion of the committee, the enhanced Fellowship cannot be recommended, the committee may stipulate a period of time, not less that three months, for the candidate to re-appear before the committee for the consideration of enhanced Assistantship.
- d) Continuation of Teaching Assistantship until the period of entitlement. (Ref. : 191<sup>st</sup> Senate Meeting)

The Research Scholars with Teaching Assistantship/ Fellowship/ Financial Support routed through the Institute who submit their thesis before the stipulated period of 5 years, may continue to avail of their financial support until the date of their Ph.D. Viva Voce Examination or the end of the period of their entitlement, whichever is **earlier**.

The Head/ Supervisor of the concerned Department may recommend such cases by certifying the needs in consultation with the Ph.D. Supervisor(s).

# R.10.4 : Award of Teaching Assistantship to Ph.D. students with B.Tech. from IITs without GATE requirements. (192<sup>nd</sup> Senate meeting)

Teaching Assistantship will be awarded to the Ph.D students admitted with a B.Tech qualifying degree from the IITs, without GATE requirements, provided the candidates had a CGPA/CPI greater than or equal to 8.00 on a 10 point scale in their B.Tech. Degree.

#### 11. Leave Rules

- **R.11.1**: All Research Scholars under TA/RA/SF are entitled for leave for a maximum of **30** days per year in addition to Public Holidays. Also **10** days leave on medical reasons is permitted. The leave due can be carried over to the next year and accumulated upto **90** days.
- **R.11.2**: Women Scholars are entitled for **maternity leave** at the full rate for a period of not exceeding 180 days, once during the tenure of their studentship. This should be supported by a medical certificate.
- **R.11.3**: Male Scholars are entitled for 15 days **paternity leave** once during the tenure of their award. This should be supported by a medical certificate.

The Head of Department/ Academic unit/ Convener of the Interdisciplinary Programme is authorized to sanction the above leaves.

**R.11.4**: No vacation in Summer/Winter is admissible.

# **R.11.5**: Special Leave to attend Seminars/Conferences in India/abroad to present research papers is admissible as follows.

Event	<b>Duration</b>	Stipend	Sanctioning Authority
* Conference /	5 working day per semester	Yes	Head of the
Seminar			Academic Unit
* Internship	Upto 6 months during the	No	Convener, DPGC (in
	entire tenure of the Ph.D.		consultation with
	programme.		DPGC)

<sup>\*</sup> Academic leave in excess of above shall be considered by the Dean (AP) on the recommendation of the Convener, DPGC.

**R.11.6**: Research Scholars under CSIR/UGC and other categories are governed by the rules of the bodies which provide financial support. In absence of specific rules of the funding agencies the students shall be governed by the Institute leave rules.

#### R.11.7: Leave rules for M.Sc. +Ph.D. (Dual Degree)

- i) Leave rules as applicable for 2 year M.Tech. programme (note: not two year M.Sc. Programme) be followed for such students until the point of confirmation of Ph.D. Registration typically at the end of the fifth semester of the Dual Degree programme.
- ii) Ph.D. Leave rules be followed after the point of Confirmation of Ph.D. Registration.

# R.12 Policy/guidelines on visit of IIT Bombay Ph.D. students to other IITs/Institutions (240<sup>th</sup> Senate Meeting)

- (i) **Institutes for research visit**: Other IITs or centrally funded Institutions/National laboratories. Student should have an external supervisor, who is willing to supervise the research work at the host Institute.
- (ii) **Duration of visit**: Shall not exceed 2 academic semesters.

Preferably, student should begin the visit at the start of the semester and return to IIT Bombay at the end of the semester. Must present APS on or before the due date, before proceeding/after returning from the visit, as the case may be.

- (iii) **Eligibility for visit**: After completion of the confirmation to the Ph.D. registration (i.e after completion of coursework/qualifier and PGAPEC approval of the Confirmation of Ph.D. registration) and before completion of 4 years in Ph.D. programme or presentation of the presynopsis seminar.
- (iv) **Payment of TA/RAship during Visit**: TA/RAship to be paid for maximum period of 12 months. (The PGC of the academic unit should forward the attendance certificate for releasing TA/RAship of the concerned student to academic office.)

# **Glossary:**

IDP - Interdisciplinary Programme.

PGPC - Postgraduate Programmes Committee.

DPGC - Departmental Postgraduate Committee.

IDPC - Interdisciplinary Postgraduate Committee.

CPGC - Postgraduate Committee for Centre

SPGC - School Postgraduate Committee

PGC - Postgraduate Committee

PGAPEC - Postgraduate Academic Performance Evaluation Committee

CRF - Course Registration Forms

CAF - Course Adjustment Forms

FA - Faculty Advisor

Course List - List of students registered for a course

Course Credit - Weighted sum of the number for credit hours (L) Tutorial hours (T) Practical hours (P) associated with the course.

SPI - Semester Performance Index, which is obtained by dividing the Semester Grade

Points by the Semester credits.

CPI - Cumulative Performance Index which is obtained by dividing the

Cumulative Grade Points by the Cumulative Credits.

# (Ref. 251st Senate)

**Course no. Allocation :** The course nos. allotted to any course is the combination of the academic unit code having 2/3 characters (AE, ME, CL, SOM, GNR, etc.) and followed by a 3/4 digit no. [Eg. Of course nos. : AE202; CL321, CH801, EE4004, SOM711, GNR671 etc.]

**Allocation of course nos. for Postgraduate (PG) courses :** Generally, the course nos. from 500 to 799 are allotted to PG courses, eg. GS 515, SI 505, ME 616, EE 717 etc. These are usually taken by the students of Master's degree programmes.

The course nos. from 800-999 are allotted to PhD courses, eg. CLS 801, CH 820, CH 823, MA 822 etc. These are usually taken by student in PhD programme.

If the nos. get **exhausted**, in the range of 500-799, then the course nos. be allotted in the range of 5001 to 7999 for PG courses.

There are some Institute level common courses for both Masters' and PhD students, such as: "XX 899 – Communication skills". The course "GC101- Gender in the workplace" is a course common for all the students, UG, PG & PhD.

Allocation of course nos. for Undergraduate (UG) courses: Generally, the courses from 101 to 499 are allotted to UG courses, eg. AE 215, CS 101, ME 316, EE 417 etc. These are usually taken by the students of Bachelors and Dual Degree (Btech+MTech / BDES+MDES) programmes. If the nos. get exhausted, in the range of 100-499, then the course nos. be allotted in the range of 1001 to 4999 for UG courses.

GC101- Gender in the workplace" is a course common for all the students, UG, PG & PhD.

**Allocation of course nos. for common courses for UG and PG both :** Generally, the courses nos, from 600 to 699 are allotted for the courses common or UG and PG.

Updated as on: 23-07-2025

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