

Office Academic Affairs

Office Order

IISERBPR/CAA/OO/2019/06

July 24, 2019

Sub: Essential requirements for Ph.D. degree at IISER Berhampur

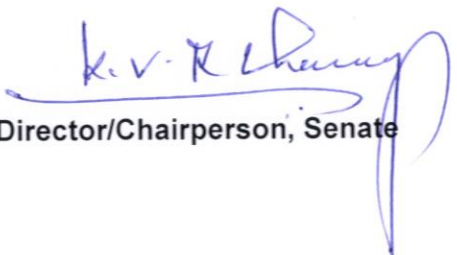
Ref.: Minutes of the 2019 2/7th meeting of the Senate IISER Berhampur held on May 28, 2019

The Senate IISER Berhampur at its 2019 2/7th meeting held on May 28, 2019 vide agenda point No. 8 resolved to ratify the essential requirements for Ph.D. degree at IISER Berhampur (as a part of Ph.D. Manual).

For Ph.D. students admitted before July-2019, office order No. IISERBPR/CAA/OO/2019/05 dated July 12, 2019 stands valid only in regard to minimum CPI and course requirement to continue in the Ph.D. programme. The rules and regulations for comprehensive examination and thereafter activities for Ph.D. degree at IISER Berhampur will be same as per the attached guidelines.

The detailed document is enclosed as Annexure-1 to this office order for information and compliance of all concern.


Coordinator, IISER Berhampur


Director/Chairperson, Senate

Distribution:

1. All FICs and Coordinators
2. All PhD students
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THE ESSENTIAL REQUIREMENTS FOR PH.D. DEGREE AT IISER BERHAMPUR

8. ESSENTIAL REQUIREMENTS

8.1 Minimum Residence and Maximum Duration

Minimum residency requirement for the submission of thesis is 3 years (out of which atleast 1.5 years should be dedicated to research work). The registration of a student will be cancelled if she/he does not submit the thesis within 6.5 years of joining the programme. Under exceptional circumstances, the period of residency can be extended up to 7 years with the approval of Chairperson, Senate, on the recommendation of Convener, DPGC and DoAA.

8.2 Academic Requirements

The Ph.D. programme comprises course work and research work. The aim of the course work is to strengthen the fundamental understanding of students in the subject and to prepare them for conducting research work.

The minimum course requirements for the eligibility to appear in the comprehensive examination (see #8.7) of Ph.D. are 28 credits. This comprises of atleast four-lecture courses (minimum 4 credits each), and lab rotations/projects/lecture courses/reading courses (minimum 12 credits and as per the Departmental policy). In addition, a course on error analysis, technical writing, and communication skills and a seminar course have to be completed by the student within the first 6 semesters with a satisfactory (S) grade as an essential requirement for the award of Ph.D. degree.

Please note that the above-mentioned course requirement is the bare minimum requirement to continue in the programme. However, a Department does not need to restrict to these numbers. Departments may offer more courses (not less) as per the policy of each Department.

Every Department should permit the student to register for courses outside the Department, if recommended by the Convener, DPGC/thesis supervisor, for a maximum of 8 credits.

Some courses can be reading courses under the guidance of faculty members at IISER Berhampur. Such courses have to be approved by the Senate. The Senate may also allow Ph.D. students to credit courses in other academic Institutions.

Institute may consider the time spent outside by the student for the minimum residence and research work requirement for the award of Ph.D. degree. However, such work must be carried out under the guidance/evaluation of the thesis supervisor at IISER Berhampur. Prior to undertaking work outside IISER Berhampur, the student must obtain consent from the Convener, DPGC, HoD and approval from DoAA.

The minimum cumulative performance index (CPI) required to continue for the award of Ph.D. degree is 6.0. If a Ph.D. student secures a $CPI \geq 5.5$, she/he may be allowed to continue in the following semester on the recommendation of Convener, DPGC, HoD and with the approval of DoAA and Chairperson, Senate, according to the merit of the case.

8.3 Provisions for Relaxation

Senate may grant relaxation in the prescribed minimum/maximum residence and/or academic requirements to a student in view of the work done by her/him in the Institute or elsewhere, to the extent considered appropriate according to the merit of the case.

8.4 Assignment of Thesis Supervisor

A Ph.D. thesis supervisor will be assigned to every student at an appropriate time during the programme, as decided by individual Departments. The guidelines listed below will be followed in assigning thesis supervisor(s):

- I. Thesis supervisor of a student will normally be appointed from amongst the faculty members at IISER Berhampur in accordance with the guidelines of each Department. Besides the other rules laid by the DPGC, criteria such as the student's preference for a research area and her/his performance in the course work and lab rotations/projects at IISER Berhampur may be considered for assigning thesis supervisor(s) by the Department. A detailed document containing procedure and guidelines of the allotment

of thesis supervisor should be prepared by each Department/DPGC and approved by the DoAA. On a case-by-case basis a student from a Department may be allowed to choose supervisor or co-supervisor from another Department, subject to the approval of Convener, DPGC/HoD of both the Departments followed by the approval of DoAA.

- II. Preferably the guide allotment should be done when a student completes her/his 1st semester. Though it can be extended as per the requirements and recommendation of Convener, DPGC/HoD, it should not go beyond the end of 3rd semester. Exception can be permitted on a case-by-case basis with permission of Convener, DPGC, HoD and DoAA.
- III. A student shall not normally have more than two thesis supervisors at any given time.
- IV. Under special circumstances the Senate may allow a scientist/faculty member from another academic Institution to be a co-supervisor.
- V. The assignment or change of supervisor(s) of a student must be intimated to the Office of Academic Affairs. Addition or change of supervisor is not allowed once the thesis is submitted. In case a supervisor of a Ph.D. student is changed or a co-supervisor is added, the student cannot submit her/his thesis until after six months of the change.

8.5 Assignment of Alternate Thesis Supervisor

For Ph.D. students who are assigned to only one thesis supervisor the criteria for assigning alternate supervisors under specific circumstances are as follows:

- I. If the thesis supervisor of the Ph.D. student is away on long leave, the DPGC will appoint a new supervisor or a co-supervisor, in consultation with the thesis supervisor of the Ph.D. student. In case the thesis supervisor of a Ph.D. student goes on short leave, the DPGC will appoint an administrative supervisor to fulfill various formalities.
- II. In the event that a thesis supervisor proposes to go on leave when a Ph.D. student has completed all research work and is only writing her/his thesis, the DPGC may appoint an administrative supervisor. This supervisor will take care of all formalities like submission of thesis, suggesting a list of examiners and conducting the Ph.D. defense.
- III. If the thesis supervisor of a Ph.D. student retires, resigns, or otherwise ceases to be a faculty member of the Institute, the DPGC will appoint a new thesis supervisor or co-supervisor.

8.6 Research Progress Committee and Annual Progress Seminar

Members of the research progress committee (RPC) will be proposed by the thesis supervisor immediately after the student has been allotted a supervisor. The proposed list of names will be forwarded by the Convener, DPGC with recommendation from HoD for the approval of the DoAA. In case any member of the RPC goes on long vacation exceeding a duration of three months, or resigns or retires from the Institute, the thesis supervisor should suggest new members and the request should be forwarded by the Convener, DPGC/HoD for the approval of DoAA. Thesis supervisor can also request for an addition/replacement of the existing member(s) of RPC with proper justification and such request must be forwarded by the Convener, DPGC/HoD for the approval of the DoAA.

A Ph.D. student must give an annual progress seminar (APS), once in every year beginning from 2nd year onwards. For APS from 2nd year onwards, the Ph.D. student must compile a report describing the work that has been performed in the past year and submit to the RPC at least a week before the seminar. The student must then deliver the seminar and is open to all interested members of the Department. At the end of the seminar, a closed-door discussion with the RPC should be arranged. The objective of the seminar is to provide feedback on the research carried out by the Ph.D. student in the past year and make suggestions for continuing and refining her/his research. The RPC should lay emphasis on publications in reputed international journals and also encourage the student to present her/his work in national/international conferences and workshops.

The recommendation of the RPC during second year APS is required for the promotion of student from JRF to SRF under the institute fellowship. However, in the case of external fellowship, examiners (external and internal) can be added to the RPC as per the guidelines of external funding agencies.

Composition of the RPC

- I. Research Supervisor (Convener) and/or co-supervisor (if any).
 - II. Internal member(s) (Minimum one faculty member from the Department)
 - III. External Member(s) (Minimum one faculty member chosen from outside the Department, or subject expert(s) from outside the Institute)
- Note: The supervisor(s) and at least two other members should be present in any RPC meeting.

Functions of the RPC

- I. The RPC will meet once in every year to review the progress of the Ph.D. student in Annual Progress Seminar. The RPC may also decide to meet in between the regular meetings if required under special circumstances such as insufficient progress of the Ph.D. student or on request by the supervisor/student. The RPC will also provide a grade "Satisfactory" or "Not Satisfactory" after every meeting. Two successive "Not Satisfactory" may result in the termination of the Ph.D. student registration.
- II. The RPC may recommend change of supervisor or appointment of a co-supervisor with valid reasons to Convener, DPGC/HoD.
- III. The RPC may participate in the comprehensive examination of the Ph.D. student, in addition to other members (if necessary) of the Comprehensive Examination Committee (see next section).
- IV. The thesis supervisor may consult with RPC for constituting the panel of thesis examiners.
- V. The thesis supervisor may request the RPC to review the reports of the examiners on the thesis.
- VI. The thesis supervisor may request the RPC to participate in the Ph.D. defense.

8.7 Comprehensive Examination

- I. All Ph.D. students must pass a comprehensive examination designed to test the overall comprehension of the student in various subjects. A student can appear in the comprehensive examination only after she/he has fulfilled the course requirements and satisfied the minimum specified CPI requirement. In general, the comprehensive examination should be conducted during the 3rd semester at the Institute.
- II. Students admitted to the Ph.D. programme should complete their minimum 28 credit course requirements (as per #8.2) along with the comprehensive examination within a period of four semesters from the date of admission to the programme. Exceptions can be permitted on a case-by-case basis with permission of the Convener, DPGC/HoD and DoAA.
- III. The comprehensive examination will be either oral or written, or a combination of both, as detailed in the guidelines of individual Departments, and duly approved by the Senate.
- IV. The Comprehensive Examination Committee (CEC) may remain the same as RPC or additional members may be added to it, as per the Departmental policy. The CEC may be chaired by the Convener, DPGC, or HoD, or as decided by the Department. In cases where there is no RPC constituted, the Convener, DPGC/HoD will constitute the CEC.
- V. Although no grades are assigned for the comprehensive examination, students are required to pass the same. A student will be considered to have passed the comprehensive examination if all except not more than one member of the board are satisfied with the student's performance in the examination. The report of the comprehensive examination must be sent to the DoAA within 2 weeks after the examination.
- VI. If the student failed in the comprehensive examination in her/his first attempt, a second comprehensive examination will be conducted by the CEC unless otherwise another committee for the same purpose has been approved by the Chairperson, Senate, on the recommendation of the Convener, DPGC/HoD and the DoAA. No student shall be allowed to appear in the comprehensive examination more than twice. Students who are failed to qualify the comprehensive examination in two attempts or within four semesters

will be terminated from the programme. Exceptions can be permitted on a case-by-case basis with recommendation of Convener, DPGC/HoD and approval of DoAA.

A student enrolled in the Ph.D. programme is formally registered to the candidacy for the Ph.D. degree after she/he has completed all binding course requirements atleast with the minimum required CPI of 6.0 (#: 8.2), and passed the comprehensive examination.

8.8 Graduate Seminar

Every student who has been admitted to the candidacy for Ph.D. degree (after successful completion of comprehensive examination, see #8.7) need to present a seminar covering recent developments or an advanced topic in her/his area of research or as per the Departmental policy within six months of qualifying the comprehensive examination. Assessment report for graduate seminar has to be submitted to the DoAA through the thesis supervisor in consultation with RPC.

8.9 Open Pre-Synopsis Seminar

Prior to the submission of synopsis and Ph.D. thesis, a comprehensive internal assessment of the research work should be done in a pre-synopsis seminar. The thesis supervisor should recommend two to three faculty members (in addition to RPC) to evaluate the student's research work. All the work that has been carried out by the student during her/his Ph.D. is examined, and only after the permission of this committee one is allowed to submit the synopsis and thesis. The synopsis and thesis should be submitted within four months from the date of pre-synopsis seminar. In exceptional circumstances, the student may seek an extension of up to three months with proper justification forwarded by thesis supervisor and Convener, DPGC, to DoAA. However, if the thesis is not submitted within the permitted period including the extension, the open pre-synopsis seminar already conducted will stand cancelled and the student will be required to give a fresh seminar before she/he submits her/his synopsis and thesis.

The pre-synopsis seminar must include the research work completed by the Ph.D. student in totality and therefore can be considered as rehearsal for the Ph.D. defense. A satisfactory completion report has to be submitted to the DoAA through the thesis supervisor and Convener, DPGC. Emphasis should be placed on publications and patents to ensure that the Ph.D. thesis meets the highest standards of academic excellence. A notice for the pre-synopsis seminar must be displayed 7 days in advance in the Institute. A copy of the notice should be submitted to the Office of DoAA. The general Public is also permitted to attend the pre-synopsis seminar. The student may incorporate comments/criticism obtained from the audience in her/his thesis as per the recommendation of RPC.

8.10 Submission of Synopsis and Constitution of the Ph.D. Thesis Evaluation Board

The thesis will be evaluated by a board, which is approved by the Chairperson, Senate. Members of the board should be very well recognized in the field.

The procedure for submission of synopsis, thesis, and constitution of the Thesis Evaluation Board (TEB) is as follows:

- I. A hardcopy and a softcopy of the synopsis should be submitted along with the list of examiners at least 3 weeks before the submission of the Ph.D. thesis.
- II. The thesis supervisor should propose a list of at least 6 external examiners (within India and/or abroad, with contact details including email, fax, telephone number and postal address) to the Office of DoAA.
- III. Copies of the thesis must be submitted to the Office of Academic Affairs after 3 weeks of the submission of the list of examiners (preferably three soft-bound/spiral copy and a soft copy).
- IV. TEB is constituted with the following members: Thesis supervisor(s), a RPC member and atleast three external examiners.
- V. The Chairperson, Senate, in consultation with the Chairperson, IAAC, and DoAA, will select the names of the thesis examiners from the list provided by the thesis supervisor to constitute the TEB. The external thesis examiners constituting the TEB can be all from India, or partly from India and partly from abroad. However, a minimum of one external

thesis examiner should be from India.

- VI. The Chairperson, Senate, may add examiners and/or ask for an additional list of examiners, if required. In case the Chairperson, Senate, is the thesis supervisor, the TEB will be constituted by the Chairperson, IAAC, and DoAA. In case the DoAA is the thesis supervisor, the Chairperson, Senate will constitute the TEB, in consultation with the Convener, DPGC. In case the Chairperson, IAAC and DoAA is the supervisor of the Ph.D. student, the above exercise will be carried out by the Dean, Faculty Affairs.
- VII. Chairperson, IAAC, and DoAA will send a copy of the synopsis to each member of the TEB for obtaining their consents to act as thesis examiners. If no consent is received within 10 days, the Chairperson of IAAC and DoAA will communicate with other examiners in the list (as approved by the Chairperson, Senate), and this exercise will continue until adequate number (atleast three) of examiners have consented. In rare circumstances, the Chairperson, IAAC, and DoAA may request another list of suggested examiners from the thesis supervisor, in case the original list is exhausted and adequate number of examiners are not found.
- VIII. After consents are obtained from the examiners, a copy of the thesis (soft bound hardcopy/softcopy, depending upon the preference of the examiner) is sent to each examiner with a request to provide complete evaluation report within 3 months. If no response is received within the stipulated period, a reminder will be sent and the wait period will be extended by another month. If no response is received even after 4 months, further action will be initiated on a case-by-case basis. In all cases, the names of the thesis examiners will be kept confidential till the Ph.D. defense. After the evaluation of the Ph.D. thesis is completed, the Office of Academic Affairs will communicate the names of the thesis examiners from outside the Institute to the thesis supervisor. The thesis supervisor will coordinate with external examiner(s) for Ph.D. defense.

8.11 Ph.D. Thesis Evaluation

- I. Upon receiving reports from the thesis supervisor(s), a RPC member and at least two out of the three external examiners, the DoAA will place the thesis in one of the following categories in accordance with the nature of recommendations:
 - a. **Category 1:** The examiner has not pointed out any errors and has no corrections/suggestions. The examiner has recommended that the thesis be accepted as is.
 - b. **Category 2:** The examiner has pointed out only grammatical errors like punctuation, spelling mistakes or language problems. Suggested changes must be incorporated in the thesis to the satisfaction of the TEB.
 - c. **Category 3:** The examiner points out minor technical mistakes/raises queries/suggests some modifications but does not subject the acceptance of the thesis to the answering of queries/incorporation of suggestions. The student must respond to the queries raised by the examiner and submit the revised thesis to the Office of Academic Affairs through her/his thesis supervisor. Suggested changes must be incorporated in the thesis to the satisfaction of the Thesis Defense Board.
 - d. **Category 4:** The thesis examiners reject the thesis in its present form and suggest major technical errors, clearly mentioning that the thesis cannot be accepted unless she/he is satisfied with the changes made by the student. In this case, the thesis supervisor(s) will communicate the changes carried out in the thesis, if any, in response to the queries raised by the examiner(s) with a covering note and send it to the examiner through the DoAA with a request to respond within four weeks. If no response is received within the stipulated period, a reminder will be sent and the wait period will be extended by another two weeks. If no response is received even after six weeks, further action will be initiated on a case-by-case basis.
 - e. **Category 5:** The thesis examiners find the thesis unsuitable and reject it. The thesis examiners explicitly mention that this thesis cannot be considered even with major revisions/resubmissions. If one of the examiners rejects the thesis, the matter will be referred to Chairperson, Senate, for deciding further course of action. If two or more examiners reject the thesis, the thesis will be rejected. Students receiving such a

recommendation will be terminated from their academic programme.

- II. Copies of the report, along with the category of the thesis (without revealing identity of the examiners), will be communicated to the thesis supervisor(s).
- III. On completion of the process detailed above, the Chairperson, IAAC, and DoAA will intimate the concurrence of the Chairperson, Senate, if given, to the supervisor, to initiate the constitution of the defense board. This concurrence of Chairperson, Senate, will be given if all the examiners recommend acceptance of the thesis.
- IV. In case the Chairperson, IAAC, and DoAA is the supervisor of the student concerned, the above processing will be conducted by Dean, Faculty Affairs.

Note: If plagiarism is detected at any stage during the Ph.D. programme or even after awarding the degree, disciplinary action including termination from the programme or withdrawal of the degree, as appropriate, will be initiated by the Institute.

8.12 Ph.D. Defense Board

Upon approval of the Ph.D. thesis by the examiners selected, the supervisor shall arrange the Ph.D. defense. The Ph.D. defense normally occurs within six months after submitting the thesis. The defense is an open seminar where the Ph.D. student must present and defend her/his work and answer queries raised by the examiners, Ph.D. Defense Board and audience.

The procedure for constitution of the 'Ph.D. Defense Board' (PDB) is as follows:

- I. The Board for Ph.D. defense shall consist of one of the three external examiners, thesis supervisor(s) and DoAA.
- II. The DoAA will propose the external examiner for PDB in the prescribed format for the approval of the Chairperson, Senate.
- III. The office of Academic Affairs will communicate the approval of PDB to the thesis supervisor.
- IV. Thereafter, the DoAA office in consultation with the thesis supervisor will make all necessary arrangements (including travel and accommodation for the external examiner, and scheduling, announcing and conducting the Ph.D. defense).

Composition of PDB:

- a. External examiner (Suggested by the DoAA and appointed by Chairperson, Senate).
- b. DoAA (Convener)
- c. Thesis supervisor(s)

8.13 Ph.D. Defense

- I. The Ph.D. defense will be an open examination. The DoAA will fix the date in consultation with the thesis supervisor. A notice of the same must be displayed 7 days in advance in the institute.
- II. The general public is permitted to attend the defense seminar.
- III. Following the defense seminar, there is a closed-door discussion with the Ph.D. student and PDB.
- IV. The PDB shall,
 - a. examine the thesis reports,
 - b. examine if necessary, modifications suggested by the thesis examiners have been incorporated,
 - c. examine the candidate on questions raised by the TEB,
 - d. authenticate the work as the student's own,
 - e. judge if the presentation of the work by the student and the answers to the questions asked have been satisfactory, and
 - f. provide a signed report of the candidate's performance and recommend the award of

- Ph.D. degree.
- V. If a candidate has not passed, the PDB will decide whether,
 - a. the candidate may be given another chance to defend her/his thesis, and will specify the approximate date. The same PDB will conduct the defense unless a different board is approved by the Chairperson, Senate. In the second attempt, the PDB will declare whether the student has passed or failed as per the criteria laid down above, but will not recommend holding a third attempt.
 - b. the candidate is declared to have failed.
 - VI. On receipt of the report that the student has defended her/his thesis, the DoAA may issue a provisional Ph.D. degree and initiate further proceedings for the award of the degree.
 - VII. If the candidate has failed, the matter will be brought to the attention of the Chairperson, Senate, for further action (PDB should submit a report to chairperson Senate, explaining the grounds of failure).

8.14 Submission of the Final Thesis

Hard-bound copies of the Ph.D. thesis in the prescribed format should be submitted only after incorporating the corrections, if any required by the TEB/PDB. The thesis supervisor should certify the incorporation of all comments raised. Copies of the Ph.D. thesis (prepared according to the duly approved format) should be submitted as per the requirement of the Department. Two copies of the duly signed hard-bound thesis (one of which will be forwarded to the institute library) and a soft copy should be deposited in the Office of the Academic Affairs no later than 15 days after the completion of Ph.D. defense examination.

Acronymous

1. DPGC = Departmental postgraduate committee
2. DoAA = Dean of Academic Affairs
3. RPC = Research Progress Committee
4. APS = Annual Progress Seminar
5. CEC = Comprehensive Examination Committee
6. CPI = Cumulative Performance Index
7. TEB = Thesis Evaluation Board
8. IAAC = Institute Academic Affairs Committee
9. PDB = Ph.D. Defense Board

Edited by the committee for Ph.D. manual:

Prof. K. V. R. Chary
Director IISER Berhampur (Chairman)

Dr. Jose Sebastian (Member)
Asst. Professor
Department of Biological Sciences

Dr. Rakesh K. Pathak (Convener)
Asst. Professor
Department of Chemical Sciences

Dr. Ritabrata Sengupta (Member)
Asst. Professor
Department of Mathematical Sciences

Dr. Victor Mukherjee (Member)
Asst. Professor
Department of Physical Sciences

Dr. Bal Krishnan Mishra (Member invitee)
IISER Berhampur