

Ph.D Regulations

1. Preamble:

The Degree of Doctor of Philosophy (Ph.D) shall be awarded to a candidate who, as per the regulations of the Indian Maritime University set out hereunder, has submitted a thesis based on original and independent research in any particular discipline or more than one discipline (inter-disciplinary), that makes a contribution to the advancement of knowledge in maritime sector, and which is approved by a constituted Board of Examiners.

2. Areas of Research

The University shall provide facilities for research in the following areas:

- a) Marine Engineering
- b) Nautical Science
- c) Naval Architecture and Ship Building
- d) Dredging and Harbour Engineering
- e) Off-shore Support Services
- f) Inland Waterways, Coastal Shipping and River-Sea Shipping
- g) Port and Shipping Management
- h) Logistics and Supply Chain Management
- i) Maritime Security and Piracy
- j) Maritime related areas
- k) Inter-disciplinary areas

The above list is only illustrative and not exhaustive.

3. Eligibility

- a) The eligibility criteria for admission to the Ph.D programme shall be one among the following:

(i) Candidates shall have passed SSLC (10th or 11th class/grade and PUC or higher secondary (12th grade) before joining undergraduate (UG) programme (3 or more years) and UG before joining PG degree programme. That is, 10+2+UG Degree (3 or more years) or 11+1+ UG Degree (3 or more years).

AND

The Post Graduate (P.G) shall be in the respective areas of research as listed out in para 2 above or a relevant discipline with at least 55% marks or equivalent Cumulative Grade Point

Average (CGPA). For SC/ST/OBC (NCL)/PWD candidates, the minimum marks shall be 50% (or equivalent CGPA).

(ii) M.S (By Research) or M.Phil degree in the respective areas of research as listed out in para 2 above or a relevant discipline.

(iii) Mariners with Master/ MEO Class I Certificates of Competencies or PGDMOM qualifications with 2 years of continues teaching experience at degree level as faculty in IMU/ IMU Affiliated Institutes/DG(S) approved institutes, shall be eligible till the academic year 2023-24.

b) The Board of Research Studies shall decide whether a particular discipline is relevant to the particular area of research or not.

4. Admissions Process:

a) Admissions to the Ph.D programme shall be done only once in a year in June/July along with regular admissions to other programmes of IMU.

b) Admission of scholars to the Ph.D programme shall be based on the performance in:

Stage I: Written Test to be administered in Multiple Choice Questions (MCQ) format which would test a candidate's General Mental Ability, knowledge on the Maritime sector, and knowledge on the relevant discipline/area of research in which the candidate proposes to do the Ph.D. To qualify to the Stage II, the candidate should secure minimum 50% in Stage I.

Stage II: Descriptive writing in the general area in which the Candidate is interested to do research and proficiency in English and technical writing are tested in this stage. To qualify to the Stage III, the candidate should secure minimum 50% in Stage II.

Stage III: Personal interview by the Departmental Committee.

The Written Test shall have 40% weightage. Descriptive Test on a general topic having 30% weightage and Personal Interview which shall have a 30% weightage.

To qualify for selection to Ph.D/M.S By Research the Candidate has to secure minimum of 50% overall.

c) The Controller of Examinations, IMU shall administer the Written Test and the Essay Writing Test.

d) The Interview shall be conducted by the Departmental Committee which shall be constituted by the Vice-Chancellor. Departmental Committee shall have 2 experts with Ph.D. (one internal and one external) from each school to be nominated by the VC. In case of non-availability of internal expert, same may be substituted by an additional external expert.

e) The total number of vacancies for Ph.D. Scholars will be fixed by the Vice Chancellor / Board of Research Studies based on the load on existing Guides / resources etc., and the

same will be published at the time of calling for applications for the entrance test for admissions to Ph.D. Scholars.

f) Each Departmental Committee shall finalize the rank list. The Departmental Committee may confirm the Guide proposed by Candidate selected from the approved Guide list of IMU or change the Guide, if it feels the subject being different with another approved Guide. For inter-disciplinary research, the Departmental Committee shall identify the Guide and the Co-Guide. Occasionally, a Co-Guide may be necessary even where the research is not inter-disciplinary. Either Guide or CoGuide will be a Faculty of IMU to monitor the progress of the Scholar from University side.

5. Application for Registration

a) Within a month thereafter, the candidates should submit their application for registration to the Ph.D. programme on payment of the prescribed course fee/semester fee/annual fee. Otherwise the provisional selection stands cancelled. The letter of registration shall be issued by the Controller of Examinations. The registration stands cancelled, if the prescribed annual fee is not paid within the stipulated time. The fee once paid will not be refunded/adjusted under any circumstances.

b) A proposal under inter-disciplinary research should be submitted as per the prescribed format which must be duly approved by the Departmental Committee.

6. Doctoral Committee

a) Within one month from the date of Registration, a Doctoral Committee shall be constituted by the Vice Chancellor to aid and monitor the academic progress of the Ph.D scholar on periodic basis. Vice-Chancellor can also re-constitute the Doctoral Committee, if deemed fit, at the request of the guide/candidate.

b) The Doctoral Committee shall consist of (i) a Guide who is the subject expert and empanelled guide in which the Scholar intends to do research, (ii) co-Guide who is the empanelled guide and (iii) at least two experts to be nominated by the Vice Chancellor from a panel of six experts submitted by the Guide. There shall be at least one external expert and among the experts at least one member shall be with Ph.D. qualification on the Doctoral Committee.

c) The Doctoral Committee shall have the following functions:

(i) To discuss, advise and recommend on all matters connected with the Ph.D scholar from registration till award of the degree.

- (ii) To suggest suitable subjects [in the relevant area of research] to be taken up by the Ph.D scholar as part of his/her course work.
- (iii) To monitor the work of the Ph.D scholar periodically and to submit progress reports, once in six months, in prescribed format.
- (iv) To supervise the submission of synopsis and thesis by the Ph.D scholar to the University.
- (v) Doctoral committee/monitoring committee shall meet through online and personal contact alternatively during the mandatory tenure.

7. Registration and Duration of Research: A candidate can register for the Ph.D programme either as a Full-time scholar or a Part-time scholar.

a) Full-time Scholar

- (i) A Full-time Ph.D scholar should not be working full-time during the period of the Ph.D candidature. The candidate will have to follow the attendance rules as per other IMU students applicable.
- (ii) A Full-time Ph.D scholar will have to submit the thesis on completion of three years from the date of Registration. The Doctoral Committee may extend the tenure for a further period of two years, granting the extension for not more than one year at a time, under intimation to the Controller of Examinations. The Vice Chancellor, exercising the discretionary power, may give a further extension of one year. In case a Full-time Ph.D scholar fails to submit the thesis within the maximum period of six years from the date of registration, the registration shall stand cancelled, and he will have to re-register as a fresh candidate. The Candidate need not undergo the coursework if the area of research is same, subject to the approval of the Board of Research Studies. However, a new doctoral committee has to be constituted.
- (iii) The Doctoral Committee shall review the progress of Full-time Ph.D scholar every six months and intimate the same to the Controller of Examinations. In case of unsatisfactory performance, the Doctoral Committee shall issue a warning notice at the time of review. If three such warning notices are issued to a Full-time Ph.D scholar, the registration shall be liable to be cancelled by the Controller of Examinations on the recommendations of Doctoral committee and he/she will have to re-register as a fresh candidate. The Candidate need not undergo the coursework

if the area of research is same, subject to the approval of the Board of Research Studies. However, a new doctoral committee has to be constituted.

b) Part-time Scholar

- (i) A Part-time Ph.D scholar must be working full-time in the relevant technical area as listed in the section 2 or as approved by the Board of Research Studies.
- (ii) A Part-time Ph.D scholar will have to interact with the Guide and the details of such interactions (time & place) will be recorded by the Guide. However, in case the Guide is not a faculty of IMU, these details shall be intimated to the Co-Guide, who shall be an IMU faculty and Co-Guide shall keep record of the same and present these details at Doctoral Committee Meetings. Doctoral Committee Meetings shall be held at IMU Campuses where the Guide/Co-Guide is working.
- (iii) A Part-time scholar will have to submit the thesis on completion of four years from the date of Registration. The Doctoral Committee may extend the tenure for a further period of two years, granting the extension for not more than one year at a time, under intimation to the Controller of Examinations. The Vice Chancellor, exercising the discretionary power, may give a further extension of one year. In case a Part-time Ph.D scholar fails to submit the thesis within the maximum period of seven years, the registration shall stand cancelled, and he/she will have to re-register as a fresh candidate. The Candidate need not undergo the coursework if the area of research is same, subject to the approval of the Board of Research Studies. However, a new doctoral committee has to be constituted.
- (iv) The Doctoral Committee shall review the progress of Part-time Ph.D scholar every year and intimate the same to the Controller of Examinations. In case of unsatisfactory performance, the Doctoral Committee shall issue a warning notice at the time of review. If three such notices are issued to a Part-time Ph.D scholar, the registration shall be liable to be cancelled by the Controller of Examinations and he/she will have to re-register as a fresh candidate. The Candidate need not undergo the coursework if the area of research is same, subject to the approval of the Board of Research Studies. However, a new doctoral committee has to be constituted.

c) Conversion of Full-time Registration into Part-time and Vice-Versa

- (i) Notwithstanding anything prescribed in these regulations, the Vice Chancellor may permit conversion from Full-time research to Part-time research and vice-versa for valid reasons and subject to satisfying the norms in force and the availability of resources and facilities.
- (ii) The period put in by a Ph.D scholar shall be worked out in the ratio of 2:3 for research put in before and after such conversion. For example, a Full-time Ph.D scholar seeking conversion after two years shall be deemed to have completed three years on Part-time basis.

8. Supervision of Research

- a) Every Ph.D. scholar shall work under the continuous supervision of recognized Guide(s).
- b) The empanelment of Guides shall be done by the Board of Research Studies.
- c) There shall be three categories of Guides:
 - (i) IMU Faculty—Professors and Associate Professors with Ph.D degree who have published at least one paper post Ph.D in (i) the IMU approved refereed journals or (ii) UGC approved Journals or (iii) Journals which have at least an impact factor not less than 0.5.

Assistant Professors from IMU may be considered for appointment as Guides only after the completion of two years of service in IMU and who have published at least one paper post PhD in (i) the IMU approved refereed journals or (ii) UGC approved Journals or (iii) Journals which have an impact factor not less than 0.5.

However, in cases of publications not found in any of the above three but acclaimed to be worthy of a recognition, such publication will be referred to at least two experts identified by BRS in that relevant field for adjudication and upon their recommendation that the publication is worthy of recognition, the author of the such publication can be empanelled as a Guide.

- (ii) Faculty with two years of teaching experience from other Central/ State University, Autonomous Educational /Research institution, IIT, NIT, IIM or IMU's Affiliated Institutes, having a Ph.D degree who has published at least one paper post Ph.D in (i) the IMU approved refereed journals or (ii) UGC approved Journals or (iii) Journals

which have an impact factor not less than 0.5. However, in cases of publications not found in any of the above three but acclaimed to be worthy of a recognition, such publication will be referred to at least two experts identified by BRS in that relevant field for adjudication and upon their recommendation that the publication is worthy of recognition, the author of the such publication can be empanelled as a Guide.

- (iii) Industry professionals with a Ph.D. degree who has published at least one paper in
- (i) the IMU approved refereed journals or
 - (ii) UGC approved Journals or
 - (iii) Journals which have an impact factor not less than 0.5.

However, in cases of publications not found in any of the above three but acclaimed to be worthy of a recognition, such publication will be referred to at least two experts identified by BRS in that relevant field for adjudication and upon their recommendation that the publication is worthy of recognition, the author of the such publication can be empanelled as a Guide. They shall be empanelled with due care by the Board of Research Studies and designated as Adjunct Faculty members. The decision regarding the renewal/ termination of Adjunct Faculty shall be reviewed after every five years.

d) The external empanelled guides, who teach specific subjects as part of Course work to the Scholars, will be designated as Adjunct Faculty of IMU during that 'Academic Year of teaching' the subject. Adjunct Faculty who meet the following norms are designated as Adjunct Professors.

- i. They should have a PhD degree in their field of specialization either from a reputed and well ranked Indian or foreign university and currently guiding one or more Scholars in IMU.
- ii. They should have experience at the industry/university/maritime institutions/ specialized professions with a creditable record of service and performance and not in any full time formal employment.
- iii. They should have worked at least for a period of 20 years out of which at least five years should be at a top management level not less than the rank of an Executive Director/Group or Chief General Manager/Deputy Chairman/Chairman in leadership positions or in the rank of a Professor in a recognised Institution.
- iv. There should be national or international recognition for the contribution they have made in their respective fields of specialty.
- v. They should have made a significant contribution to their respective fields of specialty by published articles in peer reviewed journals, books etc.

- vi. They should be active in the field of their specialty by presenting papers in national and International seminars/conferences to prove their expertise, credibility and standing at the National/International level.
 - vii. The list of proposed Adjunct Professors who meet the qualifications will be put up to the Executive Council for approval.
 - viii. The list of proposed Adjunct Professors who meet the qualifications will be put up to the Executive Council for approval.
- e) The terms of reference for Adjunct Faculty/Professors shall be as follows.
- i. The positions of Adjunct faculty/ Adjunct Professors are deemed to be honorary with no monetary benefits other than remuneration such as fee for Ph.D guidance and TA/DA towards travel involved in Ph.D. guidance will be given as per IMU norms.
 - ii. The engagement of Adjunct Professor will not confer any right for regular employment in Indian Maritime University.
 - iii. The engagement of Adjunct faculty/Professor can be terminated at three months' notice by either side.
- f) The maximum number of Ph.D. scholars who can work under an individual Guide at a given point of time shall be as below:
- (i) Professor – 8
 - (ii) Associate Professor - 6
 - (iii) Assistant Professor - 4
 - (iv) Adjunct Faculty with Ph.D – 6
- In case an IMU Faculty has been appointed as a Co-Guide for monitoring purposes / Interdisciplinary Research, the number of scholars under this purpose will not be counted under the Guide - ship.
- g) For inter-disciplinary research, a Ph.D scholar should have a co-Guide.
- h) A Guide shall not supervise his/her immediate or close relative and to this effect he/she shall furnish a declaration.
- i) If a Guide/Co-Guide is found to have been involved in plagiarism, moral turpitude, corruption, fraudulent academic accomplishments and other such activities prejudicial to the reputation of the University, etc., the Guide-ship is liable to be terminated after giving a show-cause notice for at least seven days. The Vice Chancellor shall have the right to pass

orders in this regard. An appeal against the Vice Chancellor's order shall lie with the Board of Research Studies whose decision shall be final.

j) A Guide/Co-Guide who wishes to avail himself of leave/lien/deputation for a period exceeding six months shall nominate one of empanelled guides preferably within the department as the Guide during the period of the absence with the approval of the Vice-Chancellor.

k) Allocation/reallocation and change of Guides for valid reasons shall be recommended by the Doctoral Committee and approved by the Vice-Chancellor.

l) Guide ship of an expert recognition should be only to a particular school.

9. Course Work

a) Every Ph.D. Scholar is required to take one compulsory paper entitled "Research and Publication Ethics (RPE)" from the AY 2020 - July/August Batch in addition to four subjects for Course work. Paper 1 – Research Methodology is common to all the Scholars. The Subjects for the other three Course work papers will be decided by the Doctoral Committee of each individual Scholar. Doctoral Committees may prescribe the subjects of relevant PG Programme for the Course work to the extent possible. In case, any specialized subject is prescribed for the Course work by the Doctoral Committee and no Faculty in IMU to teach that subject, Doctoral Committee shall identify the Faculty at the time of assigning the topic, to teach the same to the Scholar. One of the specialization papers may be of Self Study. The Self-study course shall contain assignments, tests, field visits, laboratory experiments, seminars etc. as decided by the Doctoral Committee. The pattern and mode of testing in the self-study paper will be prescribed by the Doctoral Committee and question paper setting and correction of the same will be assigned by the Doctoral Committee to a suitable person identified by it.

In case, the DC recommends a course work which is not in the regular streams of teaching of IMU, the DC can recommend not more than one course available under NPTEL.

The number of hours of teaching of NPTEL courses shall be supplemented by the guide by offering seminar, assignments etc. on the subject as there is a mandatory requirement of 72 hours of teaching.

The scholar is required to produce NPTEL certificate with a minimum of 50% pass marks.

- b) The syllabi of the course work of Ph.D. will have 72 hours of teaching with 4 credits for each papers. All the course work subject syllabi should have 5 units.

For papers II, III and IV (3 Specialization course papers 4 credits each), the Doctoral Committee shall decide the subjects for specialization papers and the syllabi. The course will be administered by the Academic Section and will be common for both full time and part time scholars.

The log for the attendance of all the Scholars in person either in IMU class room or through virtual class room facility or video conferencing or through self-study shall be documented by the Faculty/Guide conducting the class. Documentation for the completion of 72 hours of self-study by the Scholar has to be carried out by the Guide and sent to the Controller of Examinations office, to allow the candidate for University examination in this subject. Grading system shall be on the marks obtained in the University Examination of 100 marks.

- c) All data will be forwarded to academic section by the concerned Faculty through Guide/ Co-Guide as applicable and records will be maintained by the Academic Section. These records will be forwarded to Examination Section for allowing the Scholar for appearing the Examinations.
- d) All the course work must be completed within 36 months from the date of Registration. If a Ph.D. Scholar fails to clear all the course-work related assignments and exams within the prescribed time, the registration shall stand cancelled.
- e) Research Methodology paper is exempted for MS by Research and M.Phil Scholars who have already undergone the course on Research Methodology as part of the program.

10. Seminar, Synopsis and Thesis Submission

- a) A Comprehensive examination shall be conducted by the Department with a committee comprising the members of the Doctoral Committee and the experts drawn from the Department and outside (full committee not less than 6 members). The candidate is expected to demonstrate his/her depth of knowledge in the topic of research. The committee after satisfying may permit the candidate to move to the next stage. Otherwise the candidate shall repeat the Comprehensive examination after three month gap.

- b) Before submission of the synopsis, a Ph.D scholar should give at least one seminar presentation on the data/findings to the members of Doctoral Committee and other invitees chosen by Doctoral Committee. The seminar presentation shall be evaluated by the Doctoral Committee. If the Doctoral Committee is not satisfied with the seminar presentation, the Ph.D scholar will be required to deliver another presentation. If the Ph.D scholar fails to deliver a satisfactory seminar presentation in three attempts with at least one month interval for each attempt the Registration shall be liable to be cancelled and he/she will have to re-register as a fresh candidate. The Candidate need not undergo the coursework if the area of research is same, subject to the approval of the Board of Research Studies. However new Doctoral Committee is to be constituted.
- c) A Ph.D scholar shall submit to the University a synopsis of around 10-15 pages (5 hard copies) of the proposed thesis along with the title, which is approved and duly certified by the Doctoral Committee. The synopsis shall also be submitted in the soft copy form in CD. No change of title or area of research shall be permitted after the approval of the synopsis.
- d) A Ph.D scholar should publish at least one research paper in refereed journals as a first author and present a full paper in a reputed conference and should produce evidence for the same while submitting the Synopsis. The journal must be in the approved list of IMU or UGC.
- e) Thereafter, within six months from the date of submission of the synopsis, the Ph.D scholar shall submit the thesis (5 hard copies) which shall be checked for plagiarism and duly certified by the Guide and forwarded to the Controller of Examinations for adjudication. The thesis shall also be submitted in the form of soft copy in CD.
- f) The title page of the thesis, cover, format, etc., should strictly conform to the prescribed format and all copies of the thesis should carry a declaration by the Ph.D scholar in the prescribed format and certificate duly signed and issued by the Guide in the prescribed format.

11. Adjudication of Ph.D Thesis

- a) The Vice-Chancellor shall appoint a panel Board of Examiners for adjudicating the thesis of a Ph.D scholar.
- b) The panel of Examiners shall comprise two external examiners to be nominated by the Vice-Chancellor from a panel of at least 8 members (4 from India, 4 from Abroad)

suggested by the Doctoral Committee. The Vice-Chancellor will normally select one from each category. The two external examiners must necessarily possess Ph.D.

- c) In case of difficulty in finding an external examiner from abroad, the Vice-Chancellor may appoint an Indian examiner and vice versa.
- d) In case of difficulty in appointing external examiners from the panel suggested by the Doctoral Committee, the Vice-Chancellor may seek second panel. The second panel is also found to be unsatisfactory, the Vice-Chancellor can appoint an external examiner from outside the panel.
- e) The panel of Examiners so appointed shall evaluate the thesis and give a detailed report in the format prescribed by the University. An Examiner may recommend one of the following:
- (i) Thesis is highly commended in its present form.
[OR]
- (ii) Thesis is commended in its present form.
[OR]
- (iii) Thesis is commended and the degree may be awarded subject to the candidate's furnishing satisfactory clarification to my queries during the Public Viva Voce examination.
[OR]
- (iv) Thesis is commended and the degree may be awarded subject to the condition that the corrections/modifications suggested by me are carried out in the thesis and duly certified by the Guide before the public viva-voce examination.
[OR]
- (v) Thesis needs to be resubmitted after revision for revaluation.
[OR]
- (vi) Thesis is not commended and the degree may not be awarded.
- f) If the thesis is reverted under clause (v) above, the revaluation will be done by the same panel of Examiners. The Controller of Examinations may forward these two reports to the Guide. g) The two external examiners shall send their individual reports to the Controller of Examinations in both hard copy and scanned soft copy form.

- h) If any one of the external examiners suggests a course of action as indicated in d (iv) or d (v) above, the Ph.D scholar shall comply with such suggestion and the same to be certified by the Doctoral Committee.
- i) If any one of the external examiners does not recommend the thesis for the award of the Ph.D degree [as in d (vi) above], the Vice-Chancellor shall then refer the thesis to a third external examiner for evaluation.
- j) The remarks made by the external examiner who has not recommended the thesis, shall be provided to the Guide so as to advise the Ph.D scholar to carry out any corrections / additions / alterations / modifications, if needed.
- k) The third external examiner shall not be provided with the reports of the other examiners. If the third external examiner recommends the thesis for the award of the degree, the candidate shall be asked to appear for a viva-voce examination.
- l) If the third external examiner also does not recommend the thesis for award of Ph.D degree, the degree shall not be awarded to the Ph.D scholar.
- m) A candidate whose thesis has not been recommended for the award of the degree may be permitted to re-submit the thesis within a period of one year. In case the thesis is not recommended again he/she will have to re-register as a fresh candidate but without having to go through the admission process again.

12. Public defense and award of Ph.D degree

- a) Once the submitted thesis is approved, a Ph.D scholar shall defend the Thesis in the form of viva-voce in an open forum with an external examiner, who shall be nominated by the Vice-Chancellor from a panel of 3 examiners suggested by the Doctoral Committee.
- b) The external examiner who would be administering the viva voce examination must compulsorily possess a Ph.D degree. He/she shall ordinarily be one of the examiners to whom the thesis is sent for adjudication.
- c) A candidate who is successful at the viva-voce examination shall be declared to have qualified for the award of Ph.D degree by the University. The Ph.D degree certificate shall be awarded as per the format prescribed.
- d) A candidate, who is not successful at the Viva-Voce examination, may be permitted to take the same on two more occasions with at least a gap of one month each time between the presentations. If he/she is not successful even in the third attempt, the

degree shall not be awarded and the candidate will have to re-register as a fresh candidate but without having to go through the admission process again.

- e) If for any reason the external examiner is unable to conduct the viva-voce examination even two months after the appointment, the Vice-Chancellor may make alternative arrangements for the conduct of the Viva-Voce examination.

13. Publication of the Thesis:

- a) A thesis may be published, only with prior permission of the university.
- b) Permission for publication of the thesis should be sought after award of the degree. The University may grant permission for the publication of the thesis under such conditions as it may deem fit.
- c) Following the successful completion of the evaluation process and before the announcement of the award of the Ph.D. degree, an electronic copy of the Ph. D. thesis shall be submitted for hosting in the INFLIBNET.

14. Plagiarism

- a) In case it is found that a Ph.D scholar has copied a research work/dissertation/thesis and submitted the same as his/her own work for a Ph.D degree, then the candidate may be liable for such action as prescribed by UGC regulations.
- b) For the abetment of such an act as mentioned above, the recognition of the Guide shall be liable for such action by UGC regulations.
- c) In cases of detection of Plagiarism against an ex-scholar, IMU shall have the right to withdraw the degree awarded by it and initiate action against the Guide as per para 14(b).

15. Removal of Difficulties:

Without prejudice to the generality of the aforesaid regulations, the Board of Research Studies shall have the power, for a period of five years from the date of this amended Ordinance, to remove any difficulties that may arise either in the course of the transition from the previous Regulations to these revised Regulations or in the course of implementing the revised Regulations.