

## MS (By Research) Regulations

### **1. Preamble:**

The M.S (By Research) Degree 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 M.S (By Research) programme shall be an Under Graduate (U.G) degree with 10+2+( 3 or 4 ) pattern in a relevant discipline with at least 55% marks or equivalent Cumulative Grade Point Average (CGPA), except in the case of Mariners for whom a Master/MEO Class I Certificate of Competency would suffice. For SC/ST/OBC (NCL)/PWD candidates, the minimum marks shall be 50% (or equivalent CGPA).
- 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 MS (By Research) shall be done once in a year.
- b) Admission of scholars to the MS (By Research) 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 MS (By Research) 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 MS (By Research)/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 MS (By Research) 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 MS (By Research) 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 Co-Guide 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 MS (By Research) 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. Monitoring Committee**

a) Within one month from the date of Registration, a Monitoring Committee shall be constituted by the Vice Chancellor to aid and monitor the academic progress of the MS (By Research) scholar on periodic basis.

b) The Monitoring Committee shall consist of (i) a Guide, (ii) one senior Faculty member and (iii) at least one expert to be nominated by the Dean/Vice-Chancellor from a panel of three experts submitted by the Guide.

c) The Monitoring Committee shall have the following functions:

(i) To discuss, advise and recommend on all matters connected with the MS (By Research) scholar from admission till award of the degree.

(ii) To suggest suitable subjects [in the relevant area of research] to be taken up by the MS (By Research) scholar as part of his/her course work.

(iii) To monitor the work of the MS (By Research) scholar periodically and once in six months.

(iv) To supervise the submission of synopsis and thesis by the MS (By Research) scholar to the University.

(v) Monitoring 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 MS (By Research) programme either as a Full-time scholar or a Part-time scholar.

#### **a) Full-time Scholar**

- (i) A Full-time MS (By Research) scholar should not be working full-time during the period of the MS (By Research) candidature. The candidate will have to follow the attendance rules as per other IMU students applicable.
- (ii) A Full-time M.S scholar will have to submit the thesis on completion of two years from the date of admission. The Monitoring Committee may extend the tenure for one more year, under intimation to the Controller of Examinations. In case a Full-time M.S scholar fails to submit the thesis within the maximum period of three years, the registration shall stand cancelled, and the candidate 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 monitoring committee has to be constituted.
- (iii) The Monitoring Committee shall review the progress of Full-time M.S scholar every six months and intimate the same to the Controller of Examinations. In case of unsatisfactory performance, the Monitoring Committee shall issue a warning notice at the time of review. If two such warning notices are issued to a Full-time M.S scholar, the registration shall be liable to be cancelled by the Controller of Examinations on the recommendations of Monitoring Committee and the candidate 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 monitoring committee has to be constituted.

#### **b) Part-time Scholar**

- (i) A Part-time M.S scholar must be working full-time in relevant area as mentioned in section 2 or as approved by Board of Research Studies.
- (ii) A Part-time M.S scholar will have to interact with the Guide and the details of such interactions (time & place) will be documented 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 Monitoring Committee Meetings. Monitoring Committee Meetings shall be held at IMU Campuses where the Guide/Co-Guide is working
- (iii) A Part-time M.S scholar will have to submit the thesis on completion of three years from the date of admission. The Monitoring Committee may extend the tenure for

one more year, under intimation to the Controller of Examinations. In case a Part-time M.S scholar fails to submit the thesis within the maximum period of four years, the registration shall stand cancelled, and the candidate 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 monitoring committee has to be constituted..

(iv) The Monitoring Committee shall review the progress of Part-time M.S scholar every six months and intimate the same to the Controller of Examinations. In case of unsatisfactory performance, the Monitoring Committee shall issue a warning notice at the time of review. If two such warning notices are issued to a Part-time M.S scholar, his/her registration shall be liable to be cancelled by the Controller of Examinations on the recommendations of Monitoring Committee and the candidate 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 monitoring 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 Dean 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 M.S 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 M.S scholar seeking conversion after two years shall be deemed to have completed three years on Part-time basis.

#### **8. Supervision of Research**

a) Every MS (By Research) 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 (vide Ph.D. regulations).

c) The maximum number of MS (By Research) 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 MS (By Research) – 6

These numbers are over and above the number of Ph.D scholars who may be working under the Guide.

- d) For inter-disciplinary research, a MS (By Research) scholar should have a co-Guide.
- e) A Guide shall not supervise his/her immediate or close relative and to this effect, the guide shall furnish a declaration to this effect. If a 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.
- f) 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.
- g) Allocation/reallocation and change of Guides for valid reasons shall be recommended by the Monitoring Committee and approved by the Dean/Vice-Chancellor.
- h) Guide ship of an expert recognition should be only to a particular school.

**9. Course Work**

- a) Every MS (By Research) Scholar is required to take to five subjects for Course work. Paper 1 – Research Methodology is common to all the Scholars. The Subjects for the other four Course work papers will be decided by the Monitoring Committee of each individual Scholar. Monitoring 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 Monitoring Committee and no Faculty in IMU to teach that subject, Monitoring 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 Monitoring Committee. The pattern and mode of testing in the self-study paper will be prescribed by the Monitoring Committee and question paper setting and

correction of the same will be assigned by the Monitoring Committee to a suitable person identified by it.

In case, if 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 MS (By Research) will have 72 hours of teaching with 4 credits for each papers. All the course work subject syllabi should have 5 units. 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.

For papers II, III, IV and V (4 Specialization course papers 4 credits each), the Monitoring 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.

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 24 months from the date of Registration. If a MS (By Research) Scholar fails to clear all the course-work related assignments and exams within the prescribed time, the registration shall stand cancelled.

## **10. Seminar, Synopsis and Thesis Submission**

- a) Before submission of the synopsis, M.S scholar should give at least one seminar presentation on data/findings. The seminar presentation shall be evaluated by the Monitoring Committee. If the Monitoring Committee is not satisfied with the seminar presentation, the M.S scholar will be required to deliver another presentation. If the M.S scholar fails to deliver a satisfactory seminar presentation in two attempts with at least one month interval for each attempt, the admission shall be liable to be cancelled and the candidate 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 monitoring committee has to be constituted.
- b) M.S scholar shall submit to the University a synopsis of around 10-15 pages (5 hard copies) containing the proposed thesis along with the title, which is approved and duly certified by the Monitoring 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 submission of the synopsis.
- c) Thereafter, within three months from the date of submission of the synopsis, the M.S scholar shall submit the thesis 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.
- d) 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 M.S scholar in the prescribed format and certificate duly signed and issued by the Guide in the prescribed format.

## **11. Adjudication of MS (By Research) Thesis**

- a) The Vice-Chancellor shall appoint a Board of Examiners for adjudicating/ evaluating the thesis of a M.S scholar.
- b) The panel of Examiners shall comprise two external examiners to be nominated by the Vice Chancellor from a panel of at least six reputed experts suggested by the Monitoring Committee.
- c) The panel of Examiners shall comprise two external examiners to be nominated by the Vice Chancellor from a panel of at least six reputed experts suggested by the Monitoring Committee.
  - (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 reevaluation.

[OR]

(vi) Thesis is not commended and the degree may not be awarded.

- d) If the external examiner suggests a course of action as indicated in c (iii), c (iv) or c (v) above, the M.S. scholar shall comply with such suggestion.
- e) If the external examiner does not recommend the thesis [as in c (vi) above], the Vice-Chancellor shall then refer the thesis to a second external examiner for evaluation.
- f) The remarks made by the external examiner who has not recommended the thesis, shall be provided to the Guide so as to enable him to advise the M.S scholar to carry out any corrections / additions / alterations / modifications, if needed.
- g) The second external examiner shall not be provided with the reports of the other examiners. If the second external examiner recommends the thesis for the award of degree, the candidate shall be asked to appear for a Viva-Voce examination.
- h) If the second external examiner also does not recommend the thesis for award of M.S degree, the degree shall not be awarded to the M.S degree.
- i) 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 6 months. In case the thesis is not recommended again he will have to re-register as a fresh candidate. However, a new monitoring committee has to be constituted.

## **12. Viva-Voce Examination and award of M.S Degree**

- a) Once the submitted thesis is approved, a M.S scholar shall appear for a Viva Voce examination to be administered by an external examiner, who shall be nominated by the Vice-Chancellor from a panel of 3 examiners suggested by the Monitoring Committee.
- b) The external examiner who would be administering the Viva Voce shall ordinarily be one of the examiners to whom the thesis was sent for adjudication.
- c) A candidate who is successful at the Viva-Voce examination shall be declared to have qualified for the award of M.S degree by the University. The M.S 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 one more occasion with atleast a gap of one month. If the candidate is not successful even in the second 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.

**14. Plagiarism**

- a) In case it is found that a MS (By Research) scholar has copied a research work/dissertation/thesis and submitted the same as his/her own work for a MS (By Research) 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 implementation of these revised M.S Regulations 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.