

Regulations for Research Programmes

Section 1 Introduction

1.1 The Regulations govern the conditions for imparting courses of instructions, conduct of the examinations and evaluation of students' performance leading to M.Phil. / Ph.D. degrees. These Regulations are effective for the batches of students admitted from the academic session 2007-2008 and onwards.

1.2 The following departments of the University offer Research Programmes leading to M.Phil. and Ph.D. degrees.

- 1.2.1 Department of Architecture^α,
- 1.2.2 Department of Biotechnology^{α, δ}
- 1.2.3 Department of Chemistry^{α, δ}
- 1.2.4 Department of Civil Engineering^α,
- 1.2.5 Department of Computer Applications^δ
- 1.2.6 Department of Computer Science and Engineering^{α, δ}
- 1.2.7 Department of Electrical and Electronics Engineering^α
- 1.2.8 Department of Electronics and Communication Engineering^α,
- 1.2.9 Department of English^{α, δ}
- 1.2.10 Department of Library and Information Science
- 1.2.11 Department of Management Studies^α
- 1.2.12 Department of Mathematics^{α, δ}
- 1.2.13 Department of Mechanical Engineering^α,
- 1.2.14 Department of Petrochemical^α,
- 1.2.15 Department of Physics^{α, δ}
- 1.2.16. Department of Physical Education^α,
- 1.2.17 Department of Renewable Energy^α,
- 1.2.18 Centre for Periyar Thought^{α, δ}
- 1.2.19 Centre for Rural Development^{α, δ}
- 1.2.20 Kalaignar karunanithi centre for Political Science^{α, δ}
- 1.2.21 Department of Education^{α, δ}

α - Ph.D., and δ - M. Phil.,

1.3 The provisions of these Regulations shall be applicable to any new disciplines that are introduced from time to time and added to the above list.

1.4 Notwithstanding any of the clause(s) provided in the Regulations, the Academic Council shall exercise its powers to change/amend/interpret/implement decisions and actions concerned with academic matters.

1.5 The Board of Management of the University may, on the recommendation of the Academic Council, change any or all parts of these Regulations at any time.

Regulations for Ph. D. Programme

Section 2 Category of Registration

2.1 There shall be provision for 3 categories of registration of Ph.D. programmes.

1. Full-time (FT): Students who are willing to pursue Research on full-time basis.
2. Part-time (PT): In-service candidates, either University Faculty / Staff, Project Staff working in any Technical Institute duly approved by competent authority namely AICTE / UGC or candidates working in any public / private sector organization who are willing to pursue Research on part-time basis.
3. Students who are willing to pursue Research in PMU recognized research institutions either in FT or PT.

Section 3 Educational Qualifications

3.1 Ph.D. in Engineering / Architecture and Planning: Master's degree in Engineering / Technology / Architecture (and allied areas) with PMU CGPA of D grade or a minimum of 55% marks or equivalent grade. Master's degree in Science with PMU CGPA of D grade or a minimum of 55% marks or equivalent grade is eligible to apply some specific engineering discipline (see advertisement for the specific engineering discipline).

3.2 Ph.D. in Management / Computer Applications: Master's degree in Engineering / Technology / Architecture (and allied areas) / MBA / MCA with a minimum of 55% marks equivalent grade. Master's degree in Science with a minimum of 55% marks or equivalent grade.

3.3 Ph.D. in Science / Humanities / Library Information Sciences: Master's degree in Science / Humanities / Social Sciences with a minimum of 55% marks or equivalent grade.

3.4 For SC / ST candidates, a pass in UG and PG is sufficient for §3.1 - §3.3.

3.5 Candidate with BE/B.Arch/B.Tech/B.V.Sc/MBBS/BE(Agri)/BSc(Agri) etc qualifications who possesses competent research skills. The candidates' suitability to do research will be thoroughly examined by the PMU Research Expert Committee, and the committee will recommend appropriate research programme to the candidate.

Section 4 Selection Procedure

4.1 Candidates possessing the minimum educational qualifications and satisfying the additional criteria set by the departments from time to time will be called by the HODs to appear for an entrance test. The short listed candidates will be interviewed by the Departmental Selection Committee.

4.2 The Departmental Selection Committee will be comprised of the HOD and all eligible guides.

Section 5 Admission

5.1 Candidates whose selection is approved by the Registrar will be admitted to the Ph.D. programme after payment of prescribed fees. The candidate should also pay fees every semester as prescribed by the university failing which registration will be cancelled.

5.2 Ordinarily, a candidate is not eligible for re-registration for Ph.D. programme after cancellation of the candidate's earlier registration for any reason. Based on the merits of the individual case, and taking into consideration any special circumstances, a candidate may be considered for re-registration, however.

5.3 The university may offer teaching assistantship, to the willing research scholars, with a teaching workload not exceeding 50% of that normally prescribed for lecturers of this university. In turn, they will be compensated with

suitable emoluments. However, to avail the teaching assistantship, the research scholar has to undergo the selection procedure that shall be framed by the university from time to time.

Section 6 Duration of the Programme

6.1 The minimum duration the thesis for Research programme leading to Ph.D. in Engineering departments will be 2 years for full-time and 3 years for part-time candidates. For Ph.D. in Science, Humanities and Management departments, the minimum period will be 3 years for candidates with M.Sc. degrees and 2 years for candidates with M.Phil degrees.

6.2 The maximum period to complete the programme is 6 years for full-time candidates and 7 years for part-time candidates. However, in special cases, the permission of Academic Council may be obtained for extension by one more year in both cases.

Section 7 Choice of guide

The HOD taking into consideration the preferences of the research scholars and guides, with their consent obtained in writing, will make allotment of research scholars to guides.

Section 8 Guideship

8.1 All faculty members of the university holding doctoral degree and having a minimum of 2 papers in refereed journals are eligible to guide Ph.D. scholars. However, they have to express their willingness to guide research students by submitting a document in the format prescribed by the university. In addition, research guides from other universities/ research institutes/ industries also are eligible to guide students provided they register for guideship in PMU.

8.2 No guide shall have more than six Ph.D. scholars under PMU, excluding the candidates taken under sponsored projects, who are yet to submit the Synopses of their Theses. The guide can take candidates subsequent to the submission of Synopses by the existing scholars.

8.3 As the tenure of the Emeritus Fellow/Professor Emeritus will be for a period of one or two years only, they will be allowed to continue their guidance of Ph.D. scholars as per the existing rules applicable to University faculty members with less than 2 years service left for superannuation.

8.4 Researcher from Public or Private Industry /Institution / Laboratory who is recognized by PMU as a research supervisor is eligible to guide Ph.D. scholars with at least 3 years service still left at the time of registration of the scholar.

8.5 Continuance of guideship of retired faculty members

1. (i) When a faculty member, who has guided a candidate for 3 years, retires, he will be permitted to continue as guide on his written request and will be invited for the DC meetings without any commitment to the university. But TA (limited to II class AC train fare within India) and DA will be paid to attend the synopsis meeting and the oral examination. (ii) However, there will be a co-guide for taking care of administrative and to some extent, research responsibilities of the scholar.
2. (i) If a faculty member is to retire within 2 years, and if he is allowed to guide any scholar on his written request, another faculty member, who is not likely to retire within 2 years, will be nominated as Co-guide

of the scholar at the time of registration itself. The retired faculty member will be informed of the DC meetings, and will be invited to attend the meetings without any financial commitment to the university.
(ii) However, the retired faculty members who continue as guides will be paid TA (limited to II class AC train fare within India)/DA to attend the oral examination.

3. The CSIR and other Emeritus Fellows/ Scientists who hold office at this university for a period of 3 years and more can take fresh students during their period of appointment as Emeritus Scientists only with financial support from other sources along with another guide, who has at least 3 years service still left at the university.
4. The guide-in-charge who acted for more than one year will be a special invitee / co-opted member of the DC when the original guide takes over. The rest will be left to the discretion of the original guide.

Section 9 Change of guide / Addition of Co-guide(s)

9.1 The Research scholar may request the Registrar, for a change of guide or the guide/student may request for addition of one (or more) Co-guide(s) for valid reasons. The Chairman or his nominee shall convene the DC and based on its recommendations, the request shall be conceded.

Section 10 Doctoral Committee

10.1 The HOD will intimate the area of research, name(s) of the guide(s) and a panel of names suggested by the guide for the DC for each research scholar, to the Dean of the respective school within one week of the date of joining of the research scholar. And all these informations will be forwarded to the Dean (Research) by the Deans of the schools.

10.2 The following is the composition of the DC:

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| 1. Research guide | Chairman |
| 2. Co-guide (if any) | Member |
| 3. One senior faculty member from the university to be nominated by the Research guide | Member |
| 4. One faculty member from the same or an allied department nominated by the Dean (Research) from the panel of names suggested by the guide. | Member |
| 5. One external member from Research Establishment/Academia/Industry to be nominated by the Dean (Research). | Member |

10.3 In case any member of the DC goes on long leave, resigns or retires from the university, the Dean (Research) will nominate another member based on the suggestion of the Chairman, DC.

10.4 In case the Chairman, DC goes on long leave, resigns from the university or is deceased, the Registrar or Dean (Research) will choose a suitable replacement in consultation with the DC members.

Section 11 Registration

11.1 The DC will meet normally within a week of its being constituted, fix the date of registration for the Ph.D. programme, consider the proposed research topic and prescribe the courses of study. For the first meeting, the external member need not be present.

Section 12 Course Work

12.1 It is mandatory that the research scholars should successfully complete the courses prescribed by the DC within one year from the date of admission into the programme. M.Phil.degree holders pursuing Ph.D. in Science / Humanities/ Library and Information Science departments are exempted from doing course work, however that may be decided by the Doctoral Committee.

12.2 In case courses relevant to the research area are not offered during the semester, equivalent Directed Study subjects may be formulated. Regularly offered PG electives should not be taken for Directed Study.

12.3 Courses completed after the date of registration only will count towards the requirements of award of Ph.D. degree.

12.4 Research scholars admitted to the programme shall obtain at least an overall average B grade in their course work with a minimum of C grade in any individual course for successful completion of the courses prescribed.

12.5 Candidates who fail to satisfy the grade requirements may attempt other prescribed courses or rewrite (once) the examination in the subject(s) where they had scored less than C. If they still fail §12.4, their registration will be cancelled.

Section 13 Progress Report

13.1 Full time research scholars shall sign the attendance register on all working days. They are eligible for a total of 15 days leave every semester, which they can avail after obtaining the HOD's permission.

13.2 A research scholar shall submit a written report of work done by him/her in the prescribed pro forma to the guide, who shall forward it to the DC within two weeks before the end of each 12 month period from the date of registration for the first 3 years and before the end of each 6 month period beyond 3 years.

13.3 A research scholar shall appear before the DC once a year for the first 3 years and once a semester thereafter for progress evaluation. If the progress of the research scholar continues to be unsatisfactory, the DC can recommend cancellation of the candidate's registration.

Section 14 Comprehensive viva

14.1 Upon successful completion of the prescribed course work, about one year (2 years in case of part-time candidates) from the date of registration, the candidate shall undergo a qualifying Comprehensive viva to test the candidate's background knowledge in the broad area of specialization.

14.2 The comprehensive viva will cover the topic of research and all the allied areas. The Comprehensive viva voce board shall be common for all candidates of a given department. The composition of the viva voce Board shall be as follows:

1. All internal members of the DC in the given department
2. One external member – Professor / Associate Professor from Institutes / Universities or Scientists / Scientific Officers holding Ph.D. degree and drawing the scale of Professor and above, working in National and Regional Research Laboratories.
3. Two senior members of the faculty from same or allied department/s. The Chairman of DC or Dean (Research) shall nominate the external member to the viva voce board from a panel suggested by the guide and that approved by the DC. The comprehensive viva for all eligible candidates registered during a particular session will be held at a particular period.

14.3 Based on the result of the comprehensive viva, the viva voce board shall report to the Dean (Research) the fitness of the candidate to proceed further with his Ph.D. work, within a week of the date of the examination held.

14.4 If, based on the results of the comprehensive viva, the viva voce board does not approve a candidate, then a grace period of up to a maximum of six months shall be given for reexamination. If found fit, the candidate shall be permitted to proceed with doctoral work. Otherwise, the candidate's provisional registration will be cancelled.

Section 15 Temporary break / Conversion from full time to part time

15.1 Ph.D. scholars who secure a job after completing the comprehensive viva and one year of stay can get relief from the programme by keeping their registration alive by paying the tuition fees every semester after approval by DC.

15.2 Ph.D. scholars shall be permitted to take a temporary break from the programme for up to one year for valid reasons, with the permission of the guide and the Dean (Research).

15.3 In case, the Ph. D. scholar wants to change from full time registration to part time category, the scholar shall be accorded permission by the guide to do so only after the completion of the course work and this conversion has to be ratified by the DC and the Dean (Research) within a period of one month after the date of conversion.

Section 16 Synopsis of the Thesis

16.1 On satisfactory completion of the prescribed courses, the comprehensive viva and the required publications, the research scholar shall submit ten copies of the synopsis of the research work to the DC.

16.2 Research scholars are required to give, prior to submission of synopsis, two seminar talks based on the research work. In addition, they should have one research paper published or accepted for publication in refereed journal.

16.3 The research scholar should present the synopsis before the DC. The DC will, if it approves the work reported in the synopsis, permit the research scholar to submit the thesis and suggest the guide to recommend a panel of at least six thesis examiners (three from India and three from abroad).

Section 17 Submission of Thesis

17.1 The thesis submitted for the Ph.D. degree shall contain an account of the research work carried out by the scholar leading to the discovery of new facts or techniques or new correlation of facts already known (analytical/numerical and/or experimental and/or hardware/software oriented in nature), the work being of such quality that it makes a definite contribution to the advancement of scientific and technological knowledge.

17.2 The research scholar shall, within six months of acceptance of the synopsis by the DC, submit six copies of the thesis embodying the results of investigation, and also four copies of the abstract of the thesis of about 400 words. Besides, a CD with one copy of the electronic version of the thesis in both MS word and pdf formats also should be submitted. On the recommendation of the guide an additional three months may be granted.

Section 18 Panel of Examiners

18.1 The thesis shall be referred to two examiners (preferably, one from overseas) chosen by the Vice-Chancellor from among the panel of examiners submitted by the guide and recommended by the DC at its synopsis meeting.

Section 19 Thesis Report

19.1 The examiners are expected to send the report on the thesis within two months from the date of receipt of the thesis.

examination. The Chairman of the viva voce Examination Board shall forward the thesis to the Registrar/Dean (Research) along with the report of the viva voce Examination Board.

Section 21 Award of Ph.D. Degree

If the performance of the research scholar in the viva voce examination is satisfactory, the candidate will be awarded Ph.D. degree on the recommendation of the Academic Council and with the approval of the Board of Management of the university.

Section 22 Power to Modify

Notwithstanding all that has been stated above, the Academic Council has the right to modify any of the above Regulations from time to time.

Regulations for M.Phil. programme

1. Student Status

There is only one category of registration into this programme viz. full time

2. Educational Qualifications

2.1 M.Phil. in Science / Humanities / Management Studies / Periyar Thought: Master's degree in the relevant discipline or related disciplines.

2.2 M.Phil. in Environmental Science under the Dept. of Biotechnology/ Master's degree in Science / Management or related disciplines.

3. Duration of the programme

3.1 The duration of the M.Phil. programme shall be one year consisting of two full semesters each of 90 working days.

4. Programme of study

4.1 This programme of study shall consist of two parts. First part shall consist of three written courses. Course - I shall be Research Methodology or an Equivalent and courses II and III shall be Advanced level General courses in the special subject. The second part shall consist of one course (course IV) that can be a background special course in the field of specialization and the Dissertation. Course I shall be common to all students belonging to the same discipline/branch.

4.2 The syllabi for courses I, II and III shall be prescribed by the concerned P.G. Board of Studies. The syllabus for course - IV shall be prescribed by the Research Supervisor and may differ across candidates.

4.3 Each of the courses shall be of 8 credits and shall have a minimum of 8 working hours (4 lecture and 4 seminar hours) per week. The dissertation part shall be of 16 credits with a split up of 12 credits for thesis and 4 credits for viva voce. And a candidate has to complete a maximum of 48 credits in all during this programme.

4A Supervisor for Dissertation

4A.1 All the staff members of the university who hold M.Phil. degree with a minimum of two years experience and all the Ph.D. degree holders are eligible to guide M.Phil. students' dissertation work.

5. Scheme of examinations and Valuation

5.1 The examinations for the courses I, II and III shall be conducted at the end of the first semester. Each course shall have 50 marks for the written examination and 50 marks for continuous Internal Assessment.

5.2 A candidate shall be declared to have passed Part - I examination if the candidate secures not less than 50% of the marks in the written examination and 50% of the marks in the continuous internal assessment in each of the courses - I, II & III. If the examiners for courses I to III have awarded fail marks, the candidate shall be declared to have failed in written papers.

5.3 The performance of the candidates in the written examinations of courses I, II and III will be assessed through double valuation procedure that involves one internal and another external examiner. If the examiners differ within the allowed minimum of 20 marks, then the average will be awarded to the candidate.

5.4 If the difference in the marks awarded by the examiners for courses I, II and III exceeds 20 marks, then a third examiner will be requested into the evaluation process. In such cases, the average of the two marks (out of the three available scores) that are nearest to each other will be awarded to the candidate.

5.5 No double valuation for course IV paper. The dissertation supervisor himself shall evaluate course IV paper and award the marks.

5.5 There shall be no provision for revaluation. Requests to this effect would not be entertained.

5.6 Supplementary exams may not be conducted for the course work papers.

6. Dissertation and Ranking

6.1 The student can submit the dissertation through the HOD not earlier than 5 months but within 6 months from the date of start of the second semester.

6.2 If a candidate is unable to complete the dissertation within the stipulated time, the candidate will be given a grace period of one month to submit the dissertation. Only candidates submitting their dissertations either within the stipulated time or before the end of the grace period shall be considered for ranking. (There shall be provision for a maximum of 5 ranks for M.Phil. degree programme.)

6.3 If a candidate is unable to complete the dissertation within the stipulated time plus one-month grace period, the candidate shall be given a maximum of four extensions of 6 months period along with suitable extension fees. Nevertheless, such candidates shall not be considered for purposes of ranking even if their performance in the courses warrants a place for them in the rank list.

6.4 If a candidate does not submit the dissertation even after the maximum number of extensions, his registration shall be treated as cancelled and the candidate has to re-register for the programme. However, the candidate need not write once again the theory papers, if the candidate has already passed these courses.

6.5 For valuation of the dissertation, the supervisor shall send to the controller's office three names of examiners external to PMU and preferably from universities within Tamilnadu. The COE shall choose one examiner out of this three-member panel for valuation.

6.6 Valuation of the dissertation shall be done within the university campus by the external examiner and the supervisor. The external examiner shall be engaged to conduct valuation of the dissertation and viva voce examination on the same day.

6.7. If the examiner who values the dissertation makes a qualified recommendation such as revision of dissertation, the candidate shall be advised to revise the dissertation in the light of the suggestions made by the examiners and re-submit the dissertation, within a period of three months. A prescribed sum shall be charged as fee for re-

submission of dissertation. The revised dissertation shall be sent to the same examiner who evaluated the dissertation in the first instance.

7. Viva voce Examination

7.1 There shall be a viva-voce examination, which shall be conducted by three examiners – the HOD, supervisor and the external examiner. The average of the marks assigned by the three examiners will be awarded to the candidate.

7.2 A candidate shall be declared to have passed Part – II examination if the candidate secures not less than 50% of the marks prescribed for the dissertation and 50% of the marks prescribed for the viva-voce examination in addition to a pass in course IV.

8. Classification of successful candidates

8.1 The candidates who pass the Part - I and Part - II examinations with 75% and above in their first attempt shall be classified as I Class with distinction.

8.2 The candidates who pass the Part - I examinations in more than one attempt but within one year and Part - II examinations in one attempt shall be classified as follows: 60% to 74% as I Class and 50% to 59% as II Class.

8.3 Candidates who pass the programme in more than one attempt and beyond one year shall be declared to have completed the programme under II Class.

9. Restriction in number of chances

9.1 Re-submission of a dissertation shall be done with prescribed fees, within 6 months from the first of the month that follows the month in which result of the first attempt is announced. The permitted attempts of Part-I & II examinations shall be completed within a maximum period of 36 months from the first of the month that follows the month in which the registration was done.

9.2 A candidate may be allowed to pursue Part - II of the M.Phil. course (i.e. dissertation) even if the candidate fails in course I and /or course II and /or course III of Part – I examinations. However, the candidate is deemed to have completed the programme only after successfully completing Parts I and II.

10. Conferment of M.Phil. degree

A candidate shall become eligible for the conferment of the M.Phil. degree at once the candidate is declared to have passed both parts of the programme.

11. Re-registration

11.2 The candidates shall be permitted for re-registration based on the merit of individual cases. Special fee structure can be framed and enforced for the case of re-registered candidates.

11.3 The re-registered candidates are required to submit the dissertation not earlier than three months and not later than one year after the date of re-registration. No further extension of time shall be given.

12. Power to modify

12.1 Notwithstanding any of the provisions stated above the Vice Chancellor has powers to modify them individually or in toto. In case of any dispute/discrepancy, the matter shall be referred to the Vice Chancellor for his counsel.