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AMRITA VISHWA VIDYAPEETHAM

Ph.D. Program

(Doctor of Philosophy)

University Level Regulations

August 2019

## **1. ADMINISTRATION**

**1.1.** The name “Amrita Vishwa Vidyapeetham” will be abbreviated as “the University” in this document.

**1.2.** All the departments of the University are grouped under different faculties. For example, Faculty of Engineering, Faculty of Medical Sciences, etc. Faculty is an intellectual grouping of all departments belonging to a major discipline and may be spread across different schools and campuses and is mainly meant to remove inter-department, inter-campus and inter-school barriers for Ph.D. scholars.

**1.3.** The Dean of Postgraduate Programs (PGP Dean), PGP Chairs and Co-Chairs are the main officers whose responsibility is to ensure the smooth functioning of all Ph.D. Programs. The division of responsibilities among them is as follows:

- The Dean of the Faculty has overall leadership responsibility for the academic programs belonging to that Faculty. The Dean of Faculty is responsible for policy level involvement and decisions pertaining to Programs of that Faculty.
- Each Faculty has PGP chairs and Co-Chairs who are responsible to implement the research related requirements of the PG Programs. At each campus, each Faculty may have a PGP chair and Co-Chairs. PGP chairs and Co-chairs also handle admissions, scholarships etc., for research programmes and serve as approval authority for Ph.D. doctoral committees, comprehensive & qualifying exams, monitoring & compliance at each and every step of every Ph.D. student’s progress, conducting regular reviews, record keeping and certifying completion.
- PGP Dean oversees at University level, policies and all aspects of the PG Programme starting from admissions, scholarship allocation & selection, research progress, output, productivity and reviews, monitoring quality of PG Programs, compliance & certifying completion to vice Chancellor, record keeping etc.

**1.4.** A Ph.D. student may appeal to the PGP Chair/Co-Chairs for a waiver/substitution of any requirement. The appeal should be in writing and supported by proper justification. If the appeal is denied, it may be escalated to the PGP Dean and after that to Vice Chancellor, whose decision is final and binding.

**1.5.** These set of regulations replace all previously issued regulations with regard to Ph.D. programs in the University, and will be applicable to all Ph.D. students admitted starting July 2019, and also all Ph.D. students who are admitted prior to July 2019, but take the qualifying examination on or after July 2019.

**1.6.** Amendments to the policies and procedures outlined in this document may be made with the approval of the Vice Chancellor and subsequently ratified by the Academic Council and Board of Management.

## **2. ELIGIBILITY**

Four types of applicants who are eligible to apply for admission to the Ph.D. program:

### **2.1. Full Time**

Applicants holding a Master’s degree are eligible to apply for admission. Examples of Master’s degree include:

- ME, M.Tech.
- M.Sc., MCA, MA, M.Com, MFA, MJMC and MSW
- MBA
- MD, MS, DNB, MDS, M.Pharm, PharmD
- 2 yr. PG Diploma
- MS by research
- MPhil

All applicants are expected to have strong academic records.

## **2.2. Part Time**

Applicants who have a full-time appointment at the University or at another academic/R&D organization are eligible to apply for part-time admission. Other eligibility requirements of such applicants are same as full time applicants.

Part Time students are permitted to proceed at a slower pace in completing their doctoral requirements.

## **2.3. Integrated**

Exceptional students pursuing a Bachelor's or Master's degree here at Amrita will be allowed to apply for the Integrated Ph.D. program subject to the requirement that he or she completes all the requirements of the Bachelor's or Master's degree prior to 'advancement to candidacy'.

## **2.4. Dual Degree**

Exceptional students who satisfy the eligibility requirements of Amrita and that of Amrita's International Partner University (IPU), as stated in the Dual Ph.D. MoU signed between Amrita and the IPU, are eligible for admission to the Dual Ph.D. program.

## **3. ADMISSION**

### **3.1. Full Time and Part Time**

Applications will be solicited through the University website ([www.amrita.edu](http://www.amrita.edu)) and other means of advertisement, and generally admissions shall take place twice a year.

The PGP Dean shall constitute an admissions committee that takes into account the number of available openings, the number of applications received and the research interests of the applicants. The admissions committee may conduct an Entrance Test / Interview / Evaluation of past research track record for all applicants. All prospective Thesis Advisors are invited to participate in the selection process.

Based upon prior academic record, research track record/potential, entrance test and interview performance, the committee shall give its recommendation to the PGP Dean who will decide on the admission.

The applicants have to be admitted under one of the following Faculties:

- Faculty of Arts, Media and Commerce
- Faculty of Engineering
- Faculty of Humanities and Social Sciences
- Faculty of Interdisciplinary Studies

Faculty of Management  
Faculty of Medical Sciences  
Faculty of Science

### **3.2. Integrated**

In order to encourage exceptional students in Bachelor's and Master's programs here at Amrita to pursue Ph.D., they can be granted Integrated Ph.D. admission by Dean of PG Programs at the beginning of the semester following the receipt of application from the student. Such students are required to obtain strong recommendation letters from Amrita faculty and if available, external experts.

Integrated Ph.D. applicants can begin taking Ph.D. coursework and research as soon as admission is granted.

### **3.3. Dual Degree**

Applications for dual degree admissions are solicited as and when opportunities for such admissions become available at the IPU.

A Joint Admissions Committee (JAC) of Amrita University and the IPU will evaluate the applicants. The Amrita members of the JAC will be appointed by the Vice Chancellor and will comprise of Dean - International, Dean - PGP, and other reputed faculty. The Vice Chancellor will seek approval of the Chancellor for admission to the selected applicants.

A dual degree doctoral student is permitted to register under dual (two different) Faculty disciplines at Amrita and IPU, respectively, in order to pursue multidisciplinary research.

## **4. THESIS ADVISOR & CO-ADVISOR**

Soon upon admission to the Ph.D. Programme, every student shall be assigned a Thesis Advisor. The PGP Chair/Co-Chair shall assign a thesis advisor taking into account the student's interests.

The Thesis Advisor must be a regular faculty member of Amrita with a Ph.D. or an MD or equivalent or higher degree, and an established research record. The Thesis Advisor is primarily responsible for guiding the doctoral student's research and ensuring that the student makes satisfactory and timely progress towards the Ph.D. degree. A faculty member from one Faculty of the University may serve as Thesis Advisor for a doctoral student in another Faculty. Depending on their seniority, a Thesis Advisor should guide between four and eight doctoral students at any point of time.

There can be a Thesis Co-Advisor from within the University itself (from either the same Faculty or another Faculty in order to promote interdisciplinary research), or from a reputed national or international institution or industry.

### **International Advisor/Co-Advisor**

All doctoral students are strongly encouraged to have an International expert as a Co-Advisor, who would have to be appointed as an adjunct faculty with the approval of the Dean - International Programs.

In case of **Dual Ph.D.** programs, if the Thesis Advisor is from Amrita, then the Co-Advisor will be from IPU, and vice-versa.

## 5. DOCTORAL COMMITTEE

The Doctoral Committee is responsible for all academic matters connected with the doctoral student, including prescribing the course-work, monitoring research progress and conducting appropriate examinations. The Doctoral Committee for each Ph.D. student shall have a total of four to six members:

- Thesis Advisor
- Thesis Co-Advisor (where applicable)
- An international member (where available)
- Up to one external expert from a nationally reputed institution (where available)
- Faculty members from within Amrita University

Each member of the Doctoral Committee must hold a Ph.D. or an MD or equivalent or higher degree.

In case of **Dual Ph.D.** programs, the doctoral committee will be jointly constituted together with IPU and will consist of faculty from both Amrita and the IPU.

## 6. COURSEWORK

The course-work for a doctoral student is proposed by the Thesis Advisor, taking into account the student's background and preparation. The proposed course-work must be endorsed by the Doctoral Committee.

Minimum number of course credits is as follows:

- For students who have completed eight years or more of UG+PG (not including any extra time in clearing arrears, counting only the standard duration of respective UG & PG degrees) – 8 course credits
- For students who have completed six to seven years of UG + PG (not including any extra time in clearing arrears, counting only the standard duration of respective UG & PG degrees) – 12 course credits
- For students who have completed five years of UG + PG (not including any extra time in clearing arrears, counting only the standard duration of respective UG & PG degrees) – 16 course credits
- For students who have completed four years of UG (not including any extra time in clearing arrears, counting only the standard duration of respective UG degrees) – 21 course credits

Apart from the above course credits requirements, mandatory 4 credits is allocated to research methodology which could be one course or multiple courses covering such areas as general research methodology, mathematical foundations, quantitative methods, computer applications, research ethics, statistics, review of published research in the relevant field, training, field work, etc..

In addition to regular courses offered by the University, two additional types of courses are permitted to be counted towards the credit requirements: transfer courses and MOOC courses

- A transfer course is one that the student has completed in the recent past at Amrita or another reputed institution and that has not formed a part of the requirement for the award of any prior degree counted for eligibility for admission to Ph.D.

- A MOOC is one that is offered by a reputable education-technology company such as Coursera, EdX, and Udacity. MOOC's should be taught by faculty from Top 500 world ranked universities. Upon approval by the doctoral committee, grades secured in the MOOC will be converted to an equivalent grade in the University transcript.

Maximum of 50% of a student's coursework may consist of transfer courses/ MOOC courses.

Based on the performance in each course, a student is awarded, at the end of the semester, a letter grade in each of the courses registered, in a ten point scale. The student is expected to maintain a CGPA of 8.0 across all courses.

**Dual Ph.D.** students have to satisfy course requirements as stipulated in the MoU with IPU. Full transferability of course credits between Amrita and IPU is permitted:

- All course credits completed at Amrita can be used towards satisfying the course requirements with the IPU.
- All course credits completed at the IPU can be used towards satisfying the course requirements of Amrita.

## **7. COMPREHENSIVE EXAMINATION**

Doctoral students must pass the Comprehensive Examination after completion of all coursework with a minimum CGPA of 8.0. This is normally done within one or two years after registration in the Ph.D. Programme. The Comprehensive Examination is an oral/written examination administered by the Doctoral Committee and examines the breadth of preparatory study undergone by the doctoral student in order to begin doctoral research.

The Doctoral Committee frames the syllabus for the examination. The Doctoral Committee together with an additional Examiner will serve as the Comprehensive Examination Committee.

If a doctoral student fails in the first attempt, he or she will be given a second chance to take the examination, failing which the Ph.D. registration will officially stand cancelled.

For **Integrated Ph.D.** students, their Master's or Bachelor's degree project viva can be used as a substitute for Ph.D. comprehensive examination, and the requirement for a separate comprehensive examination is waived.

For **Dual Ph.D.** students, the comprehensive examination is required only if it is required by the IPU, and waived otherwise.

## **8. RESEARCH**

In addition to coursework, all doctoral students are expected to carry out creative and scholarly research leading up to the completion of written Ph.D. Thesis. Doctoral research must result in original and substantial contributions to the chosen specialized fields of study. This requires mastery of the literature in those specialized fields, and critical thinking and judgment. Satisfactory progress will be judged by the Doctoral Committee on the basis of semester wise progress reports submitted by the doctoral student and/or the completion of publishable papers.

## **9. QUALIFYING EXAMINATION & ADVANCEMENT OF CANDIDACY**

The Qualifying Examination is an oral examination administered by the Doctoral Committee plus an External Examiner.

All doctoral students must take a Qualifying Examination. In preparation for the qualifying examination, a doctoral student must submit a written Research Proposal to the Doctoral Committee. After approval by the committee, the student may take the Qualifying Examination, wherein he or she presents the research proposal. It should include:

- (a) Research problem and its significance;
- (b) Background and related literature;
- (c) Objectives, approach, and the results obtained to date;
- (d) Research work to be completed and timeline for completion;
- (e) Expected contributions to the field;
- (f) References cited
- (g) List of publications

A student who passes the Qualifying Examination “advances to candidacy,” ready to embark on full time doctoral research. If a doctoral student fails the Qualifying Examination in the first attempt, he or she will be given a second and final chance to appear for the examination after a period of time as stipulated by the Doctoral Committee and approved by the Chair, PGP/ Co-Chairs.

**Dual Ph.D.** students need to take only one qualifying exam jointly administered by Amrita and IPU.

## **10. OPEN SEMINARS**

After advancement to candidacy, all doctoral students are required to present two research seminars. Open seminars are scheduled after the qualifying exam and prior to submission of synopsis. The Open Seminars should be advertised in all campuses at least a week in advance and a copy sent to the Chair, PGP/ Co-Chairs. Feedback and comments received during the seminars may be suitably incorporated in the thesis in consultation with the Thesis Advisor.

## **11. THESIS SUBMISSION & EVALUATION**

Once the Thesis Advisor and Doctoral Committee are satisfied that the doctoral student has completed the required research for the award of the Ph.D. degree and the doctoral student has published (or has an acceptance of) international journal papers as listed in the section 14 titled “Publications”, and has also given the second Open Seminar, the doctoral student is required to submit a written Synopsis to the Doctoral Committee for approval.

The Synopsis should include the motivation, significance and main objectives of the research, along with a brief literature survey and a detailed report on the thesis research. The main conclusions and results should be highlighted and important figures and references should be provided. The Synopsis should be about 12 pages and the exact format may be available in the campus intranet or the Chair, PGP office.

The Thesis Advisor should forward to the PGP Chair/Co-Chairs the Synopsis.

The doctoral student should submit the Ph.D. Thesis to the Thesis Advisor/Co-Advisor. After approval by the Doctoral Committee, the Thesis Advisor/Co-Advisor forwards the Ph.D. Thesis to the PGP Chair/Co-Chair.

PGP Chair/Co-Chair will initiate the evaluation process by sending it to two external examiners, of which at least one should be international. The Thesis Advisor and Co-Advisor are also invited to provide a formal evaluation of the thesis. All examiners will be given six to eight weeks to provide their report on evaluation.

Each examiner can give one of two recommendations: (i) Accept (with any modifications), or (ii) Reject

- If both external examiners recommend “Accept”, the scholar is permitted to proceed to the Thesis Defense.
- If only one of the external examiners recommends a Reject, the thesis is sent to additional external examiner whose evaluation decides whether or not the doctoral student is permitted to proceed with the Thesis Defence. Prior to the Defence, the doctoral student must submit a revised Thesis taking into account the comments and suggestions made by all examiners.
- If both external examiners recommend a Reject, the thesis will NOT be accepted and the registration to the Ph.D. programme will stand cancelled.

After the external review of thesis, changes are incorporated and the revised thesis is prepared.

The **Dual Ph.D.** students are expected to follow the requirements of the Amrita and IPU as stipulated in the MoU. For purposes of Amrita, the evaluation of the Thesis by the joint doctoral committee, and its decision to either accept (perhaps with modifications) or reject, as communicated by the Thesis Advisor/Co-Advisor to the PGP Chair/Co-Chair, is adequate.

## **12. THESIS DEFENCE AND FINAL RECOMMENDATION**

The Thesis Defence is a public presentation made by the doctoral student on the research reported in the thesis. The date, time, venue and title of the defence should be announced widely and well in advance to enable all interested parties to attend. The Thesis Defence Committee, which includes at least one external examiner and the doctoral committee members, must be present at the defence.

The public defence will be followed by an in-camera (closed-door) oral examination during which the doctoral student is required to answer queries raised by the thesis examiners. For this purpose, all examiners’ reports will be made available to all members of the Thesis Defence Committee, who may cover the general background of the subject in the light of the requirements for the thesis. If the committee decides to accept thesis, then the thesis defence date serves as the Award of the degree. If further changes are incorporated, Doctoral Committee has to again meet to approve the thesis.

If the doctoral student passes the oral examination, the Thesis Defence Committee shall consolidate the recommendation for the award of the Ph.D. Degree based on the report of the examiners who evaluated the thesis as well as an evaluation of the doctoral student’s performance in the oral examination. The doctoral committee forwards the consolidated recommendation to the PGP Chair/Co-Chairs who forwards the same to the PGP Dean with the required enclosures. The required enclosures should be specified by the office of PGP Dean. The PGP Dean forwards the final recommendation to the Vice Chancellor for his approval.

If a scholar fails this examination during the first instance, he/she may be allowed a second and final chance after a lapse of three months, but no later than six months from the date of first appearance.

The **Dual Ph.D.** students are expected to follow the requirements of the Amrita and IPU as stipulated in the MoU. In case, the IPU requires a thesis defence, the same can be used to satisfy Amrita’s requirements. The joint doctoral committee will constitute the thesis defence committee.

## **13. PROGRESS REPORTS**



All doctoral students shall submit half-yearly reports to the Doctoral Committee who in turn will forward these reports along with their evaluation to the PGP Chair/Co-Chairs. The Office of the PGP Chair/Co-Chairs will maintain the format of the progress report.

All doctoral students shall appear before their respective Doctoral Committees once in six months to make a presentation of the progress of their work for evaluation and further guidance (termed as half yearly progress report). Satisfactory progress in thesis work as evaluated during the half yearly progress will result in a 'P' grade (Pass) and unsatisfactory progress will result in an 'I' grade (for incomplete). Half yearly progress will be judged by the Doctoral Committee on the basis of report submitted by the doctoral student. In case the progress of the doctoral student is unsatisfactory, the Doctoral Committee shall record the reasons for the same and suggest corrective measures. In the event, If the doctoral student fails to implement these corrective measures, or a scholar is assigned 'I' grade in two consecutive half yearly progress reviews, the registration to the Ph.D. programme may be cancelled.

The PGP Chair/Co-Chairs may conduct periodic reviews of all doctoral students, especially those who are not making satisfactory progress, in a meeting with their Thesis Advisors and selected additional members present. Continued unsatisfactory progress, as determined by the PGP Chair/Co-Chairs, may be sufficient grounds for discontinuation of any fellowship or assistantship that has been previously awarded to the student and also dismissal from the Ph.D. Programme.

#### 14. PUBLICATIONS

Faculty	Mandatory Minimum Publication Requirements
Faculty of Engineering	<p>Before qualifying exam: acceptance of one paper in a peer-reviewed international conference/journal.</p> <p>Before thesis submission: acceptance of two papers in peer-reviewed international journals</p>
Faculty of Medical Sciences	Before thesis submission: acceptance of two papers, at least one of which is in peer-reviewed international journal
Faculty of Sciences	Before thesis submission: acceptance of two papers in peer-reviewed international journals and one paper in an international conference
Faculty of Management	<p>Before qualifying exam: acceptance of one paper in a peer-reviewed international conference/journal.</p> <p>Before thesis submission: acceptance of two papers in peer-reviewed international journals</p>
Faculty of Arts, Media and Commerce	Before thesis submission: acceptance of one paper in an international conference and acceptance of two papers in peer-reviewed international journals
Faculty of Humanities and Social Sciences	Before qualifying exam: acceptance of one paper in a peer-reviewed international conference/journal.

	Before thesis submission: acceptance of one paper in peer-reviewed international journals
Faculty of Interdisciplinary Studies	Before qualifying exam: acceptance of one paper in a peer-reviewed international conference/journal.  Before thesis submission: acceptance of two papers in peer-reviewed international journals

All conference and journal publications have to be indexed in either Scopus, or Web of Science, or PubMed, or for management journals: Category B or better as per ABDC classification. Flagship conferences conducted annually by internationally reputed professional organisations may be considered equivalent to peer-reviewed journals, if the conference paper acceptance rate is known to be < 25%.

In disciplines in which the Impact Factors are well defined and commonly accepted, the cumulative Impact Factor of all the journal publications should be at least two.

It is highly recommended that at least one of the paper publications should have an international co-author.

#### **15. PUBLICATION ETHICS AND AUTHORSHIP NORMS**

All publications based upon the thesis research should list the name of the Thesis Advisor, the student, and any or all significant contributors to the technical content. The format for writing one's affiliation in conference/journal papers is as follows:

Amrita Authors  
Department/ Centre  
Amrita Vishwa Vidyapeetham  
Campus, India

In case of collaborative research,

Amrita Authors  
Department/ Centre  
Amrita Vishwa Vidyapeetham  
Campus, India

International Partner University Authors  
Department/ Centre  
International Partner University  
City, Country

All such publications should have the doctoral student as the primary student author. This implies that these papers that are shown to meet the eligibility criteria of Ph.D. milestones (i.e. Qualifiers, Open Seminars, Final Defense) are not going towards satisfying paper publication requirement of any other student's degree. For students pursuing multidisciplinary Ph.D. topics, papers jointly co-authored and equally contributed by multiple doctoral students may be considered in proportional fraction for each of the contributing doctoral student.

Norms for publication ethics and authorship shall be based on best practices, such as the one specified by Committee on Publication Ethics (COPE) and Amrita Vishwa Vidyapeetham's regulations. The scholars are required to check and understand the details available in <https://publicationethics.org/>.

The University expects that doctoral students shall uphold academic integrity and practice exemplary scholarship. While submitting term papers, assignments, presentations, proposals, thesis,

papers it is expected that the student who is submitting will ensure that it is his/her own work, they will acknowledge the work of other sources that they have borrowed from, and make it explicit who they have consulted in completing their work. Failure to acknowledge consultation, help, or sources are all treated as plagiarism. Plagiarism is judged by output and not by intent. Plagiarism, data falsification or fabrication are serious offences and it will attract penalties including possible expulsion from the University. If thesis contains any of these offenses, the degree can be withdrawn post graduation.

If any of the published papers are blacklisted from Scopus, Web of Science or PubMed due to poor quality at any time during the duration of the Ph.D., no credit for blacklisted papers or journals will be provided. Sufficient precaution should be done to evaluate journals prior to submission.

## **16. RESIDENCY REQUIREMENT**

All doctoral students must fulfil a minimum residency period of six months here at Amrita, and this may be covered in one or more stays.

## **17. TIMELINE AND DURATION**

Typically a full-time student is expected to complete the comprehensive examination within two years and qualifying examination within one year thereafter.

The duration for the Ph.D. depends upon the student's qualifications at the time of admission and also the category of admission.

- For full time students: three to six years
- For part-time students: five to eight years
- For integrated students: four to six years
- For dual degree students: four to six years

Extensions beyond the above time limits are at the discretion of the PGP Dean.

## **18. AWARD OF THE Ph.D. DEGREE**

Upon approval by the Vice Chancellor and subsequent ratification by the Academic Council and the Board of Management of the University, the doctoral student will be presented to the Chancellor for award of Ph.D. Degree (in the Faculty in which he or she has registered) at the next Convocation of the University.

The **Dual Ph.D.** students have to satisfy the requirements of both Amrita and the IPU.

## **19. APPEALS**

A regular doctoral student may appeal to the Chair, PGP/ Co-Chairs through the Doctoral Committee and Department Chair for a waiver/substitution of any requirement. The appeal should be in writing and supported by proper justification. Changes in Thesis Advisor and/or Doctoral Committee are generally permitted after the doctoral student passes the Comprehensive Examination. However, for valid reasons, such changes may be permitted whenever requested, such as a change in research topic. Such changes are to be approved by the PGP Chair/ Co-Chair.

If any appeal is declined, it may be escalated to the Dean PGP (for full time regular, part time, integrated and provisional students) and to the Vice Chancellor, whose decision is final and binding.

The **Dual Ph.D.** students, appeals can be approved by the joint doctoral committee of Amrita and the IPU.

## **20. AMENDMENTS**

Amendments to the policies and procedures outlined in this document may be made with the approval of the Vice Chancellor and subsequently ratified by the Academic Council and Board of Management. Any amendments to dual degree policies and procedures require changes to the MoU between Amrita and the IPU.

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