

REVA University Regulations
Governing The Minimum Standards
And Procedure For Award Of Doctoral
(Ph D) Degree, 2022



# REVA University Regulations Governing the Minimum Standards and Procedure for Award of Doctoral (Ph.D) Degree, 2022

(Framed as per the provisions under Section 35 (ii), Section 7 (x) and Section 8 (xvi) & (xxi) of the REVA University Act, 2012)

**Preamble:** REVA University Regulations Governing the Standards and Procedures for the Degree of Doctor of Philosophy (Ph D), were framed on the basis of UGC (Minimum Standards and Procedure for Awards of M Phil / Ph D degree) Regulations, 2009. In view of the fact that the UGC has revised the M Phil / Ph D regulations and has notified "University Grants Commission (Minimum Standards and Procedure for Awards of M Phil / Ph D degree) Regulations, 2016" on 5<sup>th</sup> May, 2016. UGC also made these regulations mandatory to all the Universities / Institutions. Accordingly, the existing Ph D regulation of REVA University have been amended incorporating the necessary provisions in the 2016 UGC regulations relating to minimum standards and procedure for award of M Phil / Ph D degrees. Further amendments have been made incorporating Research and Publication Ethics (RPE) course in the Course work as per the direction of UGC vide D.O.No.F.1-1/2018 (Journal/CARE) dated December 2019 and also to facilitate transfer of Ph D Registration.

## 1. Title and Commencement:

- 1.1 These Regulations shall be called "REVA UNIVERSITY REGULATIONS GOVERNING THE MINIMUM STANDARDS AND PROCEDURE FOR AWARD OF DOCTORAL (PhD) DEGREE, 2022"
- 1.2 These Regulations shall apply to both Full-time and Part-time Ph. D scholars registered in REVA University to pursue research leading to the award of Doctoral Degree of REVA University.
- **1.3** These Regulations shall come into force from the date of assent of the Chancellor of REVA University.
- 1.4 The Dean-Research and Innovation Council shall be responsible for all the matters pertaining to Ph.D. programs of REVA University.

# 2. Definitions:

In these Regulations, unless the context otherwise requires:

- 2.1 "University" means REVA University;
- 2.2 "Degree" means the degree of Doctor of Philosophy (Ph.D);

- 2.3 "School" means the School of Studies and Research of REVA University established by the Statutes and intend to work for a Degree;
- 2.4 "Department" means the Department of Studies and Research of REVA University / Constituent Colleges of REVA University that intends to work for a degree;
- 2.5 "Chairperson of the School" means the Chairperson of the School of Studies and Research of REVA University where a candidate works for a degree;
- 2.6 "Head" means Head of the School and Research of the University / Head of the Department of Studies of the Constituent Colleges of the University.
- 2.7 "Candidate" means any person who satisfies the prescribed eligibility condition as stated in Section-3 of the Regulations and who intend to register / has registered for degree;
- 2.8 "Foreign candidate" means any person who is a foreign national with a valid foreign Passport satisfying the prescribed eligibility conditions as stated in Section 5 and who intends to register/ has registered for a degree, with a valid research VISA;
- 2.9 "Board of Studies" means the Post-Graduate Board of Studies in the subject concerned/ Joint Boards of Studies in more than one subject / Interdisciplinary Board of Studies as constituted by the University;
- **2.10** "Course work" means the compulsory preparatory study to be undertaken by a candidate as prescribed by the concerned Board of Studies.
- 2.11 "Guide" means the recognized supervisor for the research work of a candidate satisfying eligibility conditions as in Section 4 of Regulations;
- 2.12 "Co-guide" means the recognized supervisor who supervises the Ph.D work of a candidate jointly with the guide satisfying eligibility conditions as in Section 4 of these Regulations;
- 2.13 "Doctorial Committee" means the Committee constituted by the University to oversee the research work of a candidate;
- 2.14 "Board of Examiners" means the panel of examiners constituted by the University for adjudicating the Ph. D thesis submitted by a candidate.
- 2.15 "Journal of Repute" means the journal enlisted in Scopus / Web of Science / UGC Journal list or by the Board of Studies in the concerned discipline / subject / group of subjects.

# 3. Eligibility criteria for admission to the Ph D program:

Subject to the conditions stipulated in these Regulations, the following persons are eligible to seek admission to the Ph.D. programme:

3.1 Candidates for admission to the Ph. D programme shall have a Master's degree or a professional degree declared equivalent to the Master's degree by the corresponding statutory regulatory body, with at least 55% marks in aggregate or its equivalent grade 'B'

in the UGC 7-point scale (or an equivalent grade in a point scale wherever grading systemis followed) or an equivalent degree from a foreign educational Institution accredited by an Assessment and Accreditation Agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country for the purpose of assessing, accrediting or assuring quality and standards of educational institutions.

- 3.2 Candidates who have cleared the M. Phil. course work with at least 55% marks in aggregate or its equivalent grade 'B' in the UGC 7-point scale (or an equivalent grade in a point scale wherever grading system is followed) and successfully completing the M. Phil. Degree shall be eligible to proceed to do research work leading to the Ph. D. Degree in the same Institution in an integrated programme.
- **3.3.** A relaxation of **5%** of marks, from 55% to 50%, or an equivalent relaxation of grade, is allowed for those belonging to SC/ST/OBC (non-creamy layer) / differently-abled and other categories of candidates as per the decision of the UGC from time to time.
- **3.4.** The eligibility marks of 55% (or an equivalent grade in a point scale wherever grading system is followed) and the relaxation of 5% to the categories mentioned above are permissible based only on the qualifying marks without including the grace mark procedures.
- **3.5.** A person whose M. Phil. dissertation has been evaluated and the viva voce is pending may be admitted to the Ph.D. programme on the condition that the admission is automatically withdrawn if the candidate fails to submit the marks cards / grade cards within one month after the closing date of admissions and also if he / she does not pass the M Phil with required marks / grades for admission to Ph D.
- 3.6. Candidates possessing a Degree considered equivalent to M. Phil. Degree of an Indian Institution, from a Foreign Educational Institution accredited by an Assessment and Accreditation Agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country for the purpose of assessing, accrediting or assuring quality and standards of educational institutions, shall be eligible for admission to Ph.D. programme.
- **3.7.** To encourage experts from industries to pursue their passions for continuous learning in the field of computer science, candidates with rich industrial experience and possessing any Master's degree can be permitted to Pursue research in Computer Science and Applications. However, such candidates should undergo two semesters of course work with a total credit of 30.
- 3.8. Candidates from abroad with relevant degree should submit equivalence certificate to pursue Ph.D. in
- **3.9.** REVA University

**3.10.** Candidates with four-year degree programme with minimum of 70% aggregate or equivalent grade in UGC 7 -point scale are eligible for Ph.D. programme.

# 4. Duration of the Programme:

- **4.1** Ph.D. programme shall be for a minimum duration of **THREE** years, including course work.
- **4.2** Extension up to FIVE years under normal circumstances and SIX years under extraordinary circumstances such as pandemic & medical conditions beyond the above limits shall be permitted based on the recommendation of the concerned Research Supervisor and the doctoral committee.
- 4.3 If any candidate fails to submit his / her Ph.D. Thesis within SIX years, he / she may apply to the University for Extension of his / her Registration for a maximum of two more years with the recommendation of the concerned Research Supervisor and the Doctoral Committee, through the Director / Head of School. Due to unforeseen circumstances and pandemic, if the scholar fails to submit the thesis even after EIGHT years, with the recommendations of the supervisor and the doctoral committee one more extension for one year can be granted.
- **4.4** The women candidates and persons with disability (more than 40% disability) may be allowed a relaxation of two years for Ph.D. in the maximum duration.
- **4.5** In addition, the women candidates may be provided Maternity Leave / Child Care Leave once in the entire duration of M. Phil / Ph. D for up to 240 days.
- **4.6** If a candidate fails to submit Thesis even after NINE years then his / her Ph.D Registration is annulled and the Dean of Research and Innovation shall notify the same. Such a candidate has to begin the admission process again if he / she desire to work again.
- **4.7** For candidates with four-year Bachelor degree/B.Sc. Research, the minimum and maximum number of years is 5 and 9 years respectively

# 5 Procedure for Admission:

- **5.1.** Admission to Ph.D. shall be through an **Entrance Test and Interview** only.
- 5.2. The University shall on the recommendation of the respective schools decide on an annual basis the number of Ph.D. scholars to be admitted. The Director of the respective Schools taking into consideration the number of available Research Supervisors and other academic and physical facilities available, keeping in mind the norms regarding the scholar- teacher ratio (as indicated in Section 7.1 of these regulations), laboratory, library and such other facilities; shall send the report to the Dean, Research and Innovation Council who shall placethe same before the Research Advisory Council.
- 5.3. The University shall invite applications for Ph D Entrance Test from the eligible candidates. It shall notify well in advance in its website and through advertisement in at least TWO national newspapers, of which at least ONE shall be in the regional language, specifying the number of seats for admission, subject / discipline-wise distribution of available seats, criteria for admission, procedure for admission, examination centre(s) where entrance test(s) shall be conducted and all other relevant information for the benefit of the candidates

## **5.4.** Entrance Test:

- **5.4.1.** There shall be School Research Committee in each School comprising of Director of the concerned School as the Chairperson and all research guides as members of the Committee. In case the School does not have adequate number of faculty members with recognition as research guides, the research guides from related schools may be opted as members of the committee.
- **5.4.2.** The Dean R&I shall be responsible for conducting the entrance test, valuation of answer scripts, conducting the interview and preparing the merit list of the candidates based on their performance in the interview in coordination with School research committee and controller of examination
- **5.4.3.** The University shall conduct Entrance Test for the selection of candidates. As under:
  - a) The Entrance Test for candidates other than those who have qualified UGC-NET (including JRF) / UGC-CSIR NET (including JRF) / SLET / GATE or passed in M. Phil or candidates hold teacher fellowship, shall consist of 50% of Research Methodology and 50% of Subject Specific. The syllabus of the Research Methodology and Subject Specific components shall be framed by the respective Schools.
- b) For candidates who have passed M. Phil program, the syllabus for entrance test shall only be Subject Specific which shall be framed by the respective School Boards / Board of Studies and the question paper shall be for 100 marks with 3 hours duration.
- c) Candidates with qualified UGC-NET (including JRF/SRF) / UGC-CSIR NET (including JRF) scores/ Senior scientists from reputed research organizations/executives with more than 15 years of domain experience from India or abroad are exempted from the entrance test. Such candidates are eligible for interview.
- **d)** Foreign Students with CGPA 4.8/5 and above are exempted from the entrance test. Such candidates are eligible for interview.
- e) For candidates from abroad satisfying 3.6, the entrance test and interview can be conducted online.
- f) Candidates in final year of their PG programme/B.Sc. Research Program are eligible to appear for the entrance test. However, for admission into Ph.D. programme, the conditions in section 3 are applicable

#### 5.4.4. Eligibility Criteria:

Based on the performance of the candidates in the entrance examination, the candidates shall be declared eligible for interview/Viva Voce. The performance levels will be decided by the doctoral committee for the said entrance examination.

- **5.4.5.** The results of the Entrance Test shall be declared by the Dean of Research and Innovation Council who shall also send the School wise list of eligible candidates to the Directors of respective Schools.
- **5.5.** The School Research Committee of respective Schools shall invite for interview/ viva-voce, all candidates listed as eligible, giving specific date, time and place. The committee shall also inform the candidates to come prepared to discuss their research interest / area through presentations. Accordingly,

- the Committee shall conduct the interview / viva voce of the candidates on the date, time and place already fixed wherein the candidates shall discuss their research interest/area through a presentation.
- **5.6.** The interview / viva voce shall also consider the following aspect:
- i. Whether the candidate possesses the competence for the proposed research;
- ii. Whether the research work can be suitably undertaken at the University;
- iii. Whether the proposed area of research can contribute to new/additional knowledge.
- 5.7. The performance in the interview / viva voce shall be assessed for 50 marks. The Selection of candidates for provisional registration shall be based on the collective performance in the Entrance test and interview provided further that such a selection depends on the availability of the guide in the subject / area of interest of the candidate.
- **5.8.** After the interview / viva-voce the Dean, Research and Innovation Council shall finalize the list of selected candidates and **notify the list of Selected Candidates** for Ph. D specifying the last date for admission upon approval from Vice Chancellor. A copy of the list of selected candidates shall be sent to the Registrar, the CoE (controller of examination) and the Finance Officer of the University.
- **5.9.** Candidates who are qualified in the entrance examination but unable to procure the seat because of no vacancy can be selected in the proceeding academic year. The validity of the entrance score is for two years
- **5.10.** Candidates who are not selected for a Ph.D. program must **re-apply whenever the applications** are invited again and go through the Entrance Test afresh.

# 6. Provisional Registration:

- **6.1.** Selected candidates shall apply for **Provisional Registration** as Doctoral Candidates after payment of stipulated fee to the University. The duly filled-in application form shall be sent to the Dean of Research and Innovation Council, REVA University Kattigenahalli, Bengaluru-560064, through the Guide, Co-guide (s), if any, and the
  - Director / Head of the School along with all necessary enclosures as stipulated in the form before the last date specified by the School.
- **6.2.** The Research and Innovation Council shall arrange to issue provisional registration letter to the candidates specifying the name of the Guide (Co-Guide if any), and the terms and conditions of Ph D program.
- **6.3.** The candidates shall report to the Director of the concerned School and produce a copy of the pre-paid receipt and commence working under the guidance of their research supervisor.
- 6.4 The Research & Innovation Council of the University shall maintain the list of all the M. Phil. / Ph.D. registered students on its website on year-wise basis. The list shall include the name of the registered candidate, topic of his/her research, name of his/hersupervisor/cosupervisor, date of enrolment/registration.

# 6.5 Provision for Transfer of PhD Registration

The research scholars who have registered for PhD in other University shall seek registration for PhD through transfer of their registration provided:

- i. The scholar seeking transfer of Registration has completed the Course work successfully and his / her research work is satisfactory;
- **ii.** The concerned guide has no objection for transfer of the registration and is willing to issue satisfactory progress report of the scholar;
- **iii.** The concerned University would issue Transfer Certificate along with successfulCompletion report of the Course work by the scholar;
- iv. The faculty in REVA University is willing to supervise the scholar and accept the continuation of the research topic already the scholar is pursuing;
- v. The scholar agrees to abide by REVA University Regulations Governing the Minimum Standards and Procedure for Award of Doctoral (PhD) Degree, 2016 and subsequent amendments and pursue PhD research satisfactorily for a minimum period of 2-years.

# 6.6 The Scholar shall have to produce following certificate for transfer of PhD registration.

- Academic records such as marks cards of Post Graduate degree and other certificates required for Ph
   D registration;
- ii. No Objection Certificate and satisfactory research progress report from the research guide in the parent university;
- iii. Transfer Certificate along with successful Completion report of the Course work by the scholar;
- iv. Certificate from the concerned subject Faculty Member of REVA University accepting the scholar to supervise and for continuation of research topic already in progress; and
- v. Declaration by the candidate that he / she would abide by REVA University Regulations Governing the Minimum Standards and Procedure for Award of Doctoral (PhD) Degree, 2016 and subsequent amendments and pursue PhD research satisfactorily.
- **6.7. Further, in circumstances** where the candidate has not completed the Coursework successfully, he/ she has to undergo Course Work in REVA University as per the provisions in REVA University

Regulations Governing the Minimum Standards and Procedure for Award of Doctoral (PhD) Degree, 2016 and the candidate is exempted from submission of Course work completion certificate from parent university.

# 7. Eligibility Criteria for recognition as Research Guide and Allocation of Research Candidates.

- 7.1 The following shall be the eligibility criteria to be a Research Supervisor, Co-Supervisor:
- a. Any regular Professor of REVA University or its Constituent College with at least FIVE research publications in refereed journals and any regular Associate/Assistant Professor of REVA University or its Constituent College with a Ph.D. degree and at least TWO research publications in refereed journals may be recognized as Research Supervisor. Further, the Faculty members should have completed one year and published one Q1/Q2/Q3/UGC care listed journal article as first author or

- corresponding author after the award of Ph.D. to become eligible for guide ship.
- **b.** Provided that in areas/disciplines where there is no or only a limited number of refereed journals, the Institution may relax the above condition for recognition of a person as Research Supervisor with reasons recorded in writing.
- c. Only a full-time regular teacher of REVA University or its Constituent College can act as a supervisor. The external supervisors are not allowed. However, Co-Supervisor can be allowed in inter-disciplinary areas from other Schools / Constituent Colleges of the University or from other related institutions with the approval of the Research Advisory Committee.

# 7.2 Allocation of Research Supervisor for Candidates

- **a.** The allocation of Research Supervisor for a selected research scholar shall be decided by the School concerned depending on the number of scholars per Research Supervisor, the available specialization among the Supervisors and research interests of the scholars as indicated by them at the time of interview/viva voce.
- b. In case of topics which are of inter-disciplinary nature where the School concerned feels that the expertise in the School has to be supplemented from outside, the School may appoint a Research Supervisor from the School itself, who shall be known as the Research Supervisor, and a Co-Supervisor from outside the School / Faculty/College/Institution on such terms and conditions as may be specified and agreed upon by the consenting Institution /College and the parent University.
- c. A Research Supervisor/Co-supervisor who is a Professor, at any given point of time, cannot guide more than EIGHT Ph.D. scholars. An Associate Professor as Research Supervisor can guide up to a maximum of SIX Ph.D. scholars and an Assistant Professor as Research Supervisor can guide up to a maximum of FOUR Ph.D scholars.
- d. In case of relocation of a Ph.D. woman scholar due to marriage or otherwise, the research data shall be allowed to be transferred to the University to which the scholar intends to relocate provided all the other conditions in these regulations are followed in letter and spirit and the research work does not pertain to the project secured by the parent institution/ supervisor from any funding agency. The scholar will however give due credit to the parent guide and the institution for the part of research already done.
- e. In case of transfer of a supervisor from the university to another institution, the supervisor should submit a letter of expression to continue as co-guide till the scholar completes the degree and a NoC for the appointment of a guide from the university. However, the supervisor can continue to be the main guide in case the scholar has submitted the long synopsis. The doctoral committee can appoint a guide from within the school/department if the supervisor does not give consent to continue as co-guide/supervisor.

#### 8. Doctoral Committee and its Constitution and Functions:

- 8.1 There shall be **Doctoral Committee** comprising of the following:
- a. The Guide and Co-guide if any, of the candidate,
- **b.** Director / Head of the School concerned who is the chairperson of the committee.
- **c.** Two Senior Faculty Members / Scientists of the concerned School who have expertise in the domain of the scholar
- **d.** One external member with the relevant expertise. The external expert should be from institute of repute and with good research credentials.

Doctoral Committee for each candidate should be constituted by the internal guide with approval from BoS chair. The committee will conduct progress review biannually as per the convenience of panel and candidate approved by Director and Dean R & I. Council. The guide is responsible for convening the meeting and submitting the proceedings to the school within the time frame stipulated in the schedule sent from R&I council. The BoS chair shall submit the documents to R&I council.

Wherever possible, the BoS chair shall identify the core groups within the school considering the thrust area of research and accordingly assign the guides and scholars to these identified groups.

One external expert with the matching expertise in the identified core areas must be selected for every 3-4 scholars of that group and the review meetings be conducted for the scholars. There should not be more than one review meeting session per day involving the same external expert.

The school should prepare the list of doctoral committee members for all the core groups.

- **8.2.** Wherever Guide is also the Director / Head of the School of the University one more Senior Faculty Member / Scientist in the School shall be included in the Committee in place of the Director / Head of the School. In such Schools wherein the number of faculty members is less than two, members of the Doctoral Committee shall be chosen from sister School(s).
- **8.3.** The Doctoral Committee shall have the following responsibilities:
- **a.** To review the research proposal and finalize the topic of research.
- b. To guide the research scholar to develop the study design and methodology of research and identify the course(s) that he/she may have to do.
- **c.** To periodically review and assist in the progress of the research work of the research scholar.
- **d.** To conduct pre-registration colloquium of the candidates.
- e. To make possible suggestions, if any, regarding the progress of research work to the candidate through the research guide. All the suggestions and remarks on progress should be submitted to R&I council after the progress review meeting.
- **f.** To conduct pre-thesis submission colloquium of the candidates.
- **g.** To be part of open viva-voce of the candidates.
- **h.** The same committee shall remain until the scholar submits the thesis

# 9. Course Work:

**9.1.** Course Work is an essential component of Research leading to Doctoral Degree. The provisionally registered candidates shall undergo **Ph.D.** Course Work of One Semester duration (16 weeks) from the date of Provisional Registration, prescribed by the University.

- The Scholars from abroad, who are qualified in the interview and with valid VISA, should undergo coursework in offline mode.
- 9.2 The Scheme of Instruction and Assessment of Course Work: The course work shall comprise of FIVE Courses, viz (i) Advanced Research Methodology (ii) Research and PublicationEthics (iii) Programs Specific Course-1, (iv) Program Specific course -2, and (v) Review of Literature in the Thrust Areas of Research. For scholars admitted directly from UG qualification, additional courses are prescribed as in 9.6.
- **9.3 Research Methodology course** could cover areas such as quantitative methods, computer applications, research ethics. In such cases wherever feasible, more than one School / Centre shall join together to offer a common course work for Advanced Research Methodology course. In such cases, the syllabus for Research Methodology shall be common and be framed in co- ordination with heads of such Schools and one / two senior Professors who are research guides, from each discipline concerned.
- **9.4 Research and Publication Ethics Course:** Research and Publication Ethics (RPE) is common and compulsory course for all the candidates registered for PhD degree, and is included in the Course Work as per the direction of the UGC, to create awareness among researchers about the publication ethics and publication misconducts. It is taught by interdisciplinary faculty.
- 9.5 This course has total 6 units focusing on basics of philosophy of science and ethics, research integrity, publication ethics. Hands-on-sessions are designed to identify research misconduct and predatory publications. Indexing and citation databases, open access publications, research metrics (citations, h-index, Impact Factor, etc.) and plagiarism tools will be introduced in this course. The Pedagogy to be adopted to teach this course includes class room teaching, guest lectures, group discussions, and practical sessions. The detailed syllabus of the course is provided in Appendix 1 of these regulations.
- 9.6 The syllabus for Program Specific courses and Review of Literature in the thrust area of research shall be prescribed by the concerned research supervisor and approved by the School Board.
- 9.7 The Scheme of Assessment and Examination of Course Work:
  - The Scheme of Assessment and Examination of Course Work comprises of **TWO PARTS**, namely;
- a) Internal Assessment (IA), and Course Work End Examination (CWEE)

  Assessment and Evaluation shall be for 100 marks for Advanced Research Methodology and Program specific courses, and 50 marks for Research & Publication ethics and Literature review courses. The split-up of marks between Internal assessment and CWEE shall be 50 marks each for

ARM, program specific and literature review courses. On the other hand, the Internal Assessment (IA) and Course Work End Examination mark split-up for RPE shall carry 20 and 30 marks respectively.

The Internal Assessment of all the Four Courses shall be based on Tutorials, Seminars, Assignments, group discussions, and practical sessions.

The CWEE of Advanced Research Methodology, Research and Publication Ethics and Program Specific Courses shall be based on a written examination to be conducted at the end of the Course Work.

The 50 marks of Literature Review for CWEE shall be meant for Literature Review Report (30 Marks) and Viva Voce (20 Marks).

The pattern of question paper for the said courses shall be decided by the respective School Boards in consultation with the concerned Research Guides

The table provided below presents the Scheme of Instruction and the Scheme of Assessment of Ph.D course work candidates.

Scheme of Instruction, Scheme of Assessment and Evaluation (for candidates with PG degree)

		I	nstructio	n		Evalu	ation		
Sl.			Teaching		Marks				
No.	Title of theCourse	Credi ts	Hrs Per week	Total Hrs.	Internal Assessm ent	Course End Exam	Literature Review Report & Viva Voce	Total	
01	AdvancedResearch Methodology.	04	04	60	50	50	00	100	
02	Research and Publication Ethics (RPE)	02	02	30	20	30	00	50	
03	Program Specific course 1	04	04	60	50	50	00	100	
04	Program Specific course 2	04	04	60	50	50	00	100	
05	Review of Literature in the thrust area of research	04	04	60	50	00	30 + 20	100	
	Total	18	-	270	220	180	50	450	

# Scheme of Instruction, Scheme of Assessment and Evaluation (for candidates with UG degree)

The coursework for candidates with UG degree shall be covered over a period of three semesters as follows:

# 1st semester

			Instruction			Evaluation			
GI.			Teaching		Marks				
Sl. No.	Title of theCourse	Credits	Hrs Per week	Total Hrs.	Internal Assessment	CourseEnd Exam	Literature Review Report & Viva Voce	Total	
01	AdvancedResearch Methodology.	04	04	60	50	50	00	100	
02	Research and Publication Ethics (RPE)	02	02	30	20	30	00	50	
03	Program Specific course 1	04	04	60	50	50	00	100	
04	Program Specific course 2	04	04	60	50	50	00	100	
	Total	14	-	210	170	180	50	350	

# 2<sup>nd</sup> semester

		1	Instruction		Evaluation				
GI.			Teaching		Marks				
Sl. No.	Title of theCourse	Credits	Hrs Per week	Total Hrs.	Internal Assessment	CourseEnd Exam	Literature Review Report & Viva Voce	Total	
01	Program Specific course 3	04	04	60	50	50	00	100	
02	Program Specific course 4	04	04	60	50	50	00	100	
03	Program Specific course 5	04	04	60	50	50	00	100	
04	Review of Literature in the thrust area of research	04	04	60	50	00	30 + 20	100	
	Total	16	-	240	200	150	50	400	

3<sup>rd</sup> semester

		1	Instruction			Evaluation			
GI.	CI.	Teaching		ching	Marks				
Sl. No.	Title of theCourse	Credits	Hrs Per week	Total Hrs.	Internal Assessment	CourseEnd Exam	Literature Review Report & Viva Voce	Total	
01	Program Specific course 6	04	04	60	50	50	00	100	
02	Program Specific course 7	04	04	60	50	50	00	100	
03	Program Specific course 8	04	04	60	50	50	00	100	
04	Review of Literature in the thrust area of research	04	04	60	50	00	30 + 20	100	
	Total	16	-	240	200	150	50	400	

Scheme of Instruction, Scheme of Assessment and Evaluation (for experts from industries with PG qualification other than Computer Engineering/science to pursue Ph.D. in CSA)

1st semester

			Instruction			Evaluation			
CI.			Teaching		g Marks				
SI. No.	Title of theCourse	Credits	Hrs Per week	Total Hrs.	Internal Assessment	CourseEnd Exam	Literature Review Report & Viva Voce	Total	
01	AdvancedResearch Methodology.	04	04	60	50	50	00	100	
02	Research and Publication Ethics (RPE)	02	02	30	20	30	00	50	
03	Program Specific course 1	04	04	60	50	50	00	100	
04	Program Specific course 2	04	04	60	50	50	00	100	
	Total	14	-	210	170	180	50	350	

# 2<sup>nd</sup> semester

		]	Instruction		Evaluation			
G!		Teaching		Marks				
Sl. No.	Title of theCourse	Credits	Hrs Per week	Total Hrs.	Internal Assessment	CourseEnd Exam	Literature Review Report & Viva Voce	Total
01	Program Specific course 3	04	04	60	50	50	00	100
02	Program Specific course 4	04	04	60	50	50	00	100
03	Program Specific course 5	04	04	60	50	50	00	100
04	Review of Literature in the thrust area of research	04	04	60	50	00	30 + 20	100
	Total	16	-	240	200	150	50	400

The suggested program specific courses for such candidates can include not limited to the following: Data Structures, Algorithm Design, Operating systems, Database Management, Object oriented Analysis and Design, performance Modeling, Calculus and Discrete Mathematics. The guide and the doctoral members shall decide the program specific courses to be taken by the scholar.

# 9.8 Continuous Assessment, Earning of Credits and Award of Grades.

9.7.1 The assessment and evaluation process happens in a continuous mode for Advanced Research Methodology Course, Research and Publication Ethics Course, and Program Specific Course. However, for reporting purpose, the course work is divided into 3 phases as Internal Assessment (IA-I), Internal Assessment (IA-II) & Course Work End Examination (CWEE). The performance of a candidate being assessed for each course shall be as under.

# 9.7.2 Internal Assessment (IA) - I:

The first phase of Internal Assessment (IA-I) is for 25 marks. This will be based on test, assignment / seminar. During the first half of the course work (i.e. by 10th week), the first 50% of the syllabus (Unit 1&2) will be completed. This shall be consolidated and a Review Test based on IA-I will be conducted and completed in the 10<sup>th</sup> week.

Total	25	i ma	ırk	٠,
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## 9.7.3 Internal Assessment(IA) - II:

The second phase of Internal Assessment (IA-II) is for 25 marks. This will be based on test, assignment / seminar. The continuous assessment and scores of second half of the course work (11<sup>th</sup> to 20<sup>th</sup> week) will be consolidated during 20<sup>th</sup> week of the course work. During the second half of the course work (i.e. by 20<sup>th</sup> week), the remaining 50% of the syllabus (Unit 3&4) will be completed. This shall be consolidated and a Review Test based on IA-II will be conducted and completed in the 20<sup>th</sup> week.

The finer split - up for the award of marks in IA-II is as follows: Assignment / Seminar 5 marks for Unit 3 & 4\*\*

The 21st week will be for revision of syllabus and preparation for the Course EndExamination.

The outline for continuous assessment activities and the modalities for Internal Assessment-I(IA-I) and Internal Assessment-II (IA-II) should be informed to the Ph D candidates well in advance. The evaluated courses / assignments during IA-I and IA-II of the assessment are immediately brought to the notice of the scholars individually and obtain their acknowledgement in the register maintained by the concerned teacher for this purpose.

All such records relating to assignments, tests etc, shall be maintained in the respective Schools for a period of one academic year excluding the year of study.

Valuation will be undertaken concurrently and results are announced latestby the end of 26th week

# 9.7.4 Setting up of question papers, conduction of the examination and evaluation of answer scripts.

- i. There shall be one Coordinator who shall act as chief for conducting the Course Work End Examination (CWEE) from each school nominated by the respective school directors.
- **ii.** It shall be the responsibility of the Coordinator to arrange and oversee all activities relating to course end examination from setting of question papers' sets, scrutinizing, valuation and finalization of the results.
- iii. For ARM Course there shall be **two** sets of Questions papers (for CWEE), one set of which shall be set by the internal examiner and other set shall be set by the external examiner who has adequate experience in the concerned subject. For the Program specific courses the

<sup>\*</sup>Note: Units 1,2, &3 in case of Research and Publication Ethics (RPE) Course.

<sup>\*\*</sup>Note: Units 4, 5, & 6 in case of Research and Publication Ethics (RPE) Course

- question papers can be set by internal members. The question papers shall be within the prescribed syllabus of the concerned course.
- iv. The course end examination shall be conducted by the R&I Council in association with CoE (controller of examination) and the respective coordinators.

# 9.8 Evaluation of Review of Literature and Research Publication Ethics:

# **9.8.1** Evaluation of Review of Literature

Right from the initial stage, the scholar has to work under the supervision of his / her research supervisor and submit two progress reports followed by the seminar. At the end of the course work, the scholar has to submit final report of the Review of Literature for final evaluation. The second Progress report shall comprise of final draft of the review report with concrete identification of research problem, hypotheses, methodology for conduct of research and probable outcome. The components of evaluation of the course 'Review of Literature in the Thrust Area of Research' are as follows:

Internal Assessment-I	IA-I	Periodic Progress and First Progress Report followed by Seminar (25%)		
Internal Assessment-II	IA-II	Periodic Progress and Second Progress Report followed by Seminar (25%)		
Course Work End Examination	CWEE	Final Evaluation of the dissertation and Viva-Voce(50%). Evaluation of the report is for 30% and the Viva-Voce examination is for 20%.		

# **9.8.2** Evaluation of Research Publication Ethics

The components of evaluation of the course 'Research Publication Ethics' are as follows:

Internal Assessment-I	IA-I	Internal Test-1 will be conducted for 20 marks and will be scale down to 10 Marks
Internal Assessment-II	IA-II	Internal Test-2 will be conducted for 20 marks and will be scale down to 10 Marks
Course Work End Examination	CWEE	Final exam will be conducted for 50 marks and willbe scale down to 30 marks.

# **9.8.3** The details of continuous assessment are summarized in the following table:

# **Summary of Continuous Assessment and Evaluation Schedule**

Component	Period	Syllabus	Weightage	Activity
IA-1	1 <sup>st</sup> to 10 <sup>th</sup> Week			Instructional process and ContinuousAssessment
	10 <sup>th</sup> Week	First 50%(two units)	25%	IA-I Test and Consolidation of IA-I
IA-2	11 <sup>th</sup> to 20 <sup>th</sup> week			Instructional process and ContinuousAssessment
	20 <sup>th</sup> Week	Second 50%	25%	Consolidation of IA-II

		remaining two units		Revision and preparation for semester – end exam
CWEE & Submission ofFinal Report of the Review of Literature	22nd Week	Entire syllabus	50%	Conduct of Course Work End Examination (CWEE)
	22-23rd Week			Evaluation and Tabulation
	End of 26 <sup>th</sup> Week			Notification of Final Grades

- 9.9 Finally awarding the grades should be completed latest by 26<sup>th</sup> week of the semester and the CoE (controller of examination) shall announce the results before closure of 26<sup>th</sup> week of commencement of the Course Work. He shall also host the result on the University WEBSITE simultaneously.
- **9.10** All candidates admitted to the Ph.D. programme shall be required to complete the Course Work prescribed by the University during the initial one or two semesters
- **9.11** Ph.D. scholar has to obtain a minimum of 55% of marks in the course work in order to be eligible to continue in the research program and submit the dissertation/thesis.

# 10. Provision for reappearing for Course Work End Examination (CWEE) / Course Work

- 10.1 Candidates who are unsuccessful in the Course Work shall be permitted to reappear for Assessment between the first and the 3rd month from the date of announcement of the results.
- **10.2** Provisional Registration of a candidate who fails in the Assessment of Course Work in two attempts shall be cancelled by the Dean of Research and Innovation Council.

# 11. **Pre-registration Colloquium:**

- 11.1 Upon satisfactory completion of course work, and obtaining the Marks / Grade prescribed by the university, the Ph. D scholar shall be required to undertake research work and produce a draft dissertation/thesis within a reasonable time, as stipulated by the REVA University regulations.
- 11.2 The scholar in consultation with his / her Guide shall prepare a Research proposal (synopsis) on the topic / research problem already identified and shall submit Two copies of the Ph D research proposal (synopsis) to the Guide through Co-guide(s) if any, within one month for registration.

- 11.3 The Research proposal (synopsis) shall consist of the background of the research problem, review of literature, need with justification of research problem, title of the proposed problem, definition of concepts, objectives and hypotheses of the study, methodology to be followed and techniques to be adopted for data collection and analysis, scope and limitations of the study and proposed form of research report. The candidate shall ensure that the synopsis clearly defines the objectives, methodology and state expected results and their implications in terms of filling up gaps in existing knowledge and its social / scientific relevance.
- 11.4 The concerned School shall organize a meeting of the Doctoral Committee upon receiving the intimation from R&I Council to conduct the **Pre-registration Colloquium**.
- 11.5 Every scholar shall prepare a brief technical report comprising literature survey / review, work plan and the scientific relevance of the proposed research and shall present it in the form of a colloquium before the Doctoral Committee.
- 11.6 The Doctoral Committee shall assess the preparedness of the candidate for the research to be undertaken and submit its report in the format provided at **Annexure-A**. The Doctoral Committee is authorized to suggest changes, if necessary, in the title /scope of the research topic / problem, methodology of research based on the performance of the candidate in the Pre-registration Colloquium.
- 11.7 The Doctoral Committee may, however, ask the candidate to present the Colloquium again if the performance / preparedness of the candidate in the first instance is not satisfactory.
- 11.8 The Chairperson of the Doctoral Committee shall inform the decision of the Pre-registration Colloquium to the Dean of Research and Innovation Council of the University through the Director of School, as well as to the candidate within one week of the Colloquium. Based on the recommendations of the Doctoral Committee, the candidate is permitted to apply for Registration.

# 12. Ph.D. Registration:

- 12.2.1. After receipt of the recommendation of the Doctoral Committee the scholar within 15 days shall submit application for PhD Registration to the Dean of Research and Innovation Council along with two copies of the Synopsis and soft copy through the Guide and Co-guide, if any and the Director of respective School, after successful completion of the Pre-registration Colloquium.
- **12.2.2.** In **case the scholar fails to** apply for Registration **within ONE month** from the date of receipt of the communication from the Dean of Research and Innovation Council, he / she forfeits his / her claim for Registration. Such a candidate has to re-apply for admission and go through the Entrance Test afresh.

- **12.2.3.** The Dean of Research and Innovation Council has to notify the Registration within two weeks of receipt of the recommendations of the doctoral committee to the candidate/ Guide / Director of School / Chairperson of Board of Studies and Doctoral Committee members.
- 12.3 The Registration is effective from the date of Provisional Registration.

# 13. Progress of Work:

- 13.1 The report of progress of research work along with recommendation of the Guide / Co-guide if any has to be submitted to the Dean of Research and Innovation Council once in every Six months. In addition the scholars shall also submit two intermediate reports. The research scholar shall also appear before the Doctoral Committee once in six months to make a presentation of the progress of his/her work for evaluation and further guidance. For scholars from abroad half –yearly presentation can be held online while the annual presentation in offline mode.
- 13.2 The Dean of Research and Innovation Council as soon as receipt of the progress report shall send the same to the Doctoral Committee with a request to hold presentation of the research progress by the scholar and send the proceedings
- 13.3 The Chairperson of the Doctoral Committee shall convene the meeting and arrange presentation of the research progress by the research scholar. The scholar shall make a presentation before the Doctoral Committee which also shall be open to all faculty members and other research scholars.
- 13.4 The Doctoral Committee shall send its comments on the same including possible recommendations about the future course of the research work. These shall be communicated to the candidate by the Dean of Research and Innovation Council through the Guide.
- 13.5 The comments obtained including the recommendations of the Doctoral Committee may be suitably used in carrying forward research / incorporated in the draft thesis by the scholar in consultation with the research guide.
- 13.6 In case the progress of the research scholar is unsatisfactory, the Doctoral Committee shall record the reasons for the same and suggest corrective measures. If the research scholar fails to implement these corrective measures, the Doctoral Committee may recommend to the University with specific reasons for cancellation of the registration of the research scholar.
- 13.7 Failure to submit two Consecutive Research Progress Reports shall entail cancellation of the Registration, and this shall be notified by the Dean of Research and Innovation Council.

# 14. Eligibility for Submission of Ph D Thesis:

14.1 The candidate is eligible to submit his / her Thesis only after completing minimum THREE years of Research Work from the date of his / her Registration.

The candidates prior to 2018 batch shall publish at least TWO research articles in refereed journal and one research paper presentations in conferences / seminars as main author / co-author, based on his / her Research Work to be eligible to submit the final thesis.

For scholars of batch 2018 and onwards:

a) Three peer reviewed journal publications indexed in Scopus/Web of Science (WoS)/UGC plus one publication in the reputed conference

or

**b)** Two peer reviewed journals in scopus/WoS/UGC care listed and one granted patent plus one publication in the reputed conference

or

c) Two Q1/Q2 journal publications plus one publication in the reputed conference.

At the time of submission at least one of the publications should be active.

Further to the above, Scholars of Engineering and Applied Sciences shall have at least one publication in Q1/Q2/Q3 listed journals. However, the doctoral committee shall consider the original contributions of the scholar and the quantum of work along with the publications in standard journals for the award of the Ph.D. degree to the candidate.

#### 14.2 PRE-THESIS SUBMISSION COLLOOUIUM:

- a) A candidate has to write the letter of intent to submit the thesis in the prescribed format describing the original contributions enclosing evidences of research publications in refereed journals in the form of acceptance letters or published papers and certificates regarding research paper presentations in conferences / seminars to the Dean R&I council. The Dean R&I will then request the director of the school to conduct an internal review meeting to assess the original contributions and the quantum of work for Ph.D. by the scholar. If the internal committee suggests corrections, the scholar will once again make the recommended changes and appear for the internal review meeting. The scholar will be allowed to attend the Pre-thesis submission colloquium only after the satisfactory recommendations from the internal committee.
- b) The Chairperson of the Doctoral Committee shall organize the Pre-thesis Submission Colloquium meeting in the concerned School in consultation with the Director of the School.
- c) The scholar shall make a presentation before the Doctoral Committee, which shall also be open to all faculty members and other research scholars in the School and other Schools.
- d) Based on the comments / suggestions during the colloquium the Doctoral Committee shall advise and offer suggestions to the candidate for the finalization of the Thesis according to

which the candidate shall modify and incorporate the suggestions and finalize the thesis. The Doctoral Committee shall verify the eligibility for submission of PhD Thesis as per section 14.

- e) The Chairperson of the Doctoral Committee shall inform the decision of the Pre- thesis Submission Colloquium to the Dean of Research and Innovation Council of the University and in turn the dean shall inform the candidate within a week of conducting the Colloquium.
- f) If the Doctoral Committee is not satisfied with the performance of the candidate in the Prethesis Submission Colloquium of this scholar, it may suggest necessary incorporations / modifications and ask the scholar to appear for the Colloquium again after a gap of one month.

# 14.3 Submission of Final Synopsis of Ph.D.:

- a) After successful completion of the Pre-thesis Submission Colloquium, a candidate shall submit 05 copies of the Synopsis along with a soft copy of his / her Ph.D. Thesis with prescribed fees to the Dean of Research and Innovation Council through the Guide, Coguide(s), if any, and the Director / Head of the School. The dean R&I council shall seek the panel of examiners approved by the Board of Studies from the Chairperson of BoS.
- Board of Studies shall submit a Panel of a minimum of twelve examiners drawn from different Universities of repute, Six of whom shall be from Karnataka State, six from outside Karnataka State including one from abroad wherever possible to the R & I council. In case of non-availability of expertise to evaluate the thesis, the committee can recommend an expert from any HEI of India.

Wherever possible, the following guidelines may be adopted in the preparation of panel of examiners:

The examiners should have a minimum of h-index of 5. This can be relaxed by the recommendation of the doctoral committee for experts with industrial experience.

- c) The draft panel shall be prepared by the Chairperson of the concerned Board of Studies in consultation with the Guide. The Chairperson of the BOS shall obtain approval of the members of the concerned Board of Studies either by circulating the draft panel along with a copy of the final synopsis or by placing the same before the Board of Studies meeting and then forward the final panel of examiners to the Dean R&I council. The Dean of Research and Innovation council will then forward the synopsis, panel of examiners with necessary certification about progress reports, to the CoE (controller of examination).
- d) This process must be completed by the Chairperson of the concerned Board of Studies within four weeks of receipt of the communication from the Dean R&I Council.

## 14.5 Submission of Ph.D. Thesis

- (a) The scholar within 6 months from the date of submission of the Final Synopsis shall prepare a Thesis embodying result of original research and submit 5 copies of his / her Ph.D. Thesis and an electronic version of the Synopsis and the Thesis in PDF format to the CoE (controller of examination) with an intimation to the Dean, Research and Innovation Council for evaluation. No further tuition fee will be charged to scholars if the submission is made within six months from the date of submission of long synopsis. In case the scholar is unable to submit the thesis within the mentioned period and enters the fresh academic year, he/she shall have to remit the tuition fee for the new academic year.
- **(b)** The thesis shall contain:
- (i) A certificate duly signed by the Guide and Co-guide, if any, to the effect the scholar has published in refereed journal and two research paper presentations in conferences / seminars as main author / co-author, based on his / her research work.
- (ii) An undertaking from the research scholar and a certificate from the Research Guide / Coguide if any, attesting to the originality of the work, vouching that the plagiarism is within 10% excluding:
- a. all quoted texts with necessary permission and proper citations
- **b.** all references, bibliography, table of contents, preface and acknowledgements, texts from own publications
- **c.** Generic terms, laws, standards, standard symbols and standard equations
- (iii) A certificate to the effect that His / her Ph.D. thesis has not been previously submitted by the scholar or the Guide or the Co-guide, if any, either for award of any Degree or Diploma to this university or any other Universities / Institutions
- (iv) The final submission of the thesis must be within the stipulated period from the date of Registration.

# 15. Evaluation of the Ph.D. Thesis:

- 15.1 The Thesis shall be evaluated by Panel of Examiners as follows:
- (a) The Thesis shall be evaluated by the Panel of Examiners of the Thesis, with Guides, Internal Examiner and Chairperson, and two External Examiners.
- (b) After receipt of the panel of examiners from the Chairperson, the CoE (controller of examination) shall seek from the Vice-Chancellor appointment of at least six examiners, of whom 3 are from other state(s). The CoE (controller of examination) shall write seeking acceptance from three examiners approved by the Vice-Chancellor.
- (c) The Examiners shall be asked to sign a Declaration that he / she is not a relative of the

- scholar or the Guide or the Co-guide and that he / she has no conflict of interest in valuing the Ph.D. Thesis.
- (d) The CoE (controller of examination) shall send a copy of the final Synopsis to the Examiners seeking approval for evaluation. Upon confirmation from the examiners, the thesis shall be sent for valuation and the Examiners must examine whether the scholar has achieved the objectives mentioned in the Synopsis.

# 15.2 Evaluation Reports:

- (a) The External Examiners shall send the Evaluation Report to the CoE (controller of examination) with a copy to the Chairperson of the Board of Examiners of the Thesis.
- (b) Apart from the Evaluation Report, each Examiner is required to submit a Short Report in the prescribed Proforma duly signed and sent as Hard Copy / FAX/ Scanned Image with signature at the end of the report. (Appendix-II).

## 15.3 Decision about Evaluation:

- (a) If the two examiners have recommended for acceptance of the thesis and for award of the Ph D degree, the CoE (controller of examination) shall forward the copies of these reports to the Chairperson of the Board of Examiners of the thesis and obtain a consolidated report highlighting the main points, together with the recommendation of the Guide as the Chairperson of the Board of Examiners.
- (b) After receipt of the consolidated report from the Chairperson of the Board of Examiners of the thesis, the CoE (controller of examination) shall forward the original reports along with the consolidated reports requesting Chairperson of the BoE of the thesis to conduct vivavoce as per the provisions in this regulation under 15.4 and send the report of the viva-voce along with the original reports of the examiners and the consolidated report.
- (c) If two Examiners reject the Thesis outright, the CoE (controller of examination) shall notify rejection of the Thesis and cancellation of Ph.D. Registration.
- (d) If an Examiner makes certain observations and recommends for award of degree after incorporating the suggested revisions / corrections, such suggestions, corrections shall be complied with by the candidate and the Guide shall certify the same and further ratified by the Doctoral Committee upon receipt of the letter from the CoE (controller of examination). After ratification, the revised Thesis shall be submitted to the CoE (controller of examination).

## 15.4 VIVA VOCE Exam:

- (a) After receipt of the above mentioned Evaluation and Consolidated Reports from the Chairperson, Board of Examiners (BoE) of the Thesis, the CoE (controller of examination) shall ask the Chairperson of the Doctoral Committee of the concerned scholar to conduct an open Viva-Voce examination in the presence of one of the external examiners, the members of the Doctoral Committee, Faculty members, research scholars and students of the concerned School and of other Schools by giving wide publicity. The school may conduct one mock viva-voce prior to the conduction of the open Viva-Voce.
- (b) The Chairperson of the BoE of the thesis accordingly fix the viva-voce of the scholar indicating the date, time and place of the viva-voce and shall invite one of the external examiner, Doctoral Committee members and Teachers, and Research scholar of the school and other schools by giving wide publicity and accordingly conduct the viva-voce of the research scholar in presence of one of the external examiner, Doctoral Committee members and Teachers, and Research scholar of the school and other schools. The scholar during the viva-voce shall clarify all questions raised by the examiners and other members present and defend his / her thesis.
- (c) The Chairperson of the BoE of the thesis shall record the proceedings of the open viva-voce meeting and obtain signature of the external examiner and the Board of Examiners to the proceedings. He / She also has to obtain signatures of all the faculty members, scholars and students who witnessed and participated in the open viva-voce. He / She shall send the proceedings along with the original Evaluation and Consolidated Reports and attendance sheet to the CoE (controller of examination) immediately after the viva-voce and the CoE (controller of examination) must notify the declaration of the results within two days after getting approval from the Vice Chancellor.
- (d) If the candidate desires, the viva-voce examination may be held via video conferencing as described in (a) after payment of necessary additional fees prescribed by the University.
- 15.5 In case of the death / disability / non-availability of the Guide, the Vice-Chancellor may nominate a member from the Panel of Examiners / Chairperson of respective Board of Studies to act as the Chairperson, Board of Examiners of the Thesis to adjudicate the thesis and to conduct the Viva-Voce Examination.

# **16.** Depository with INFLIBNET:

Following the successful completion of the evaluation process and before the announcement

of the award of the Ph.D. degree, the CoE (controller of examination) shall submit an electronic copy of the Ph. D. thesis to the INFLIBNET, for hosting the same so as to make it accessible to all Universities / Institutions/Colleges.

## 17. Ph.D. Notification:

- 17.1 The Ph.D. declaration Notification by the CoE (controller of examination) shall be on the Official Letter Head and shall contain:
- (a) the Name of the candidate;
- **(b)** the Discipline / Subject of the Ph.D.;
- (c) the Names of the Guide, Co-guide (s), if any;
- (d) the Name of the School where the research work was carried out; and
- (e) the Title of the Thesis.
- 17.2 The CoE (controller of examination) shall affix a Seal with the University Emblem stating that the Thesis was accepted for the award of Ph.D. Degree in accordance with the provisions of UGC Ph D Regulations, 2016 and as per REVA University Ph. D Regulations, 2016 and the candidate has under gone course work and issue the copy to the candidate.
- 17.3 Prior to the actual award of the degree, the CoE (controller of examination) shall issue a Provisional Certificate to the effect that the Degree has been awarded in accordance with the provisions of these UGC Regulations, 2016 and as per REVA University Ph. DRegulations, 2016.
- 17.4 Plagiarism charges and subsequent actions:
  - **a.** If the University receives complaint of plagiarism with sufficient evidences or if anyExaminer points out occurrence of plagiarism in the Thesis, the Thesis shall be sent to a
  - **b.** subject Expert selected by the Vice-Chancellor to verify and ascertain the occurrence of plagiarism.
  - c. If plagiarism is proved, then a show cause notice shall be issued to the candidate and the Guide. After reply to the show cause notice all documents / reports / answers to the show cause notice shall be placed before the Board of Management and Board of Governors for appropriate actions including possible annulment of Registration of the candidate and initiation of disciplinary action against the candidate and the Guide.
  - **d.** Unsigned and undated complaints without the address of the complainant shall not be entertained by the University.
  - e. The University shall also strictly maintain confidentiality of the name and address of the complainant.

# 18. Change of Title / Guide:

- **a.** A candidate desiring to change the title of the Thesis shall apply to the Dean of Research and Innovation Council with the revised Synopsis and changed Title through the Guide /Co-guide if any.
- b. The Dean of Research and Innovation Council shall forward the same to the Chairperson Board of

- Studies who shall seek the opinion of the doctoral committee for the change of title within one month.
- **c.** The change of title of the thesis can be permitted any time before the Pre-Thesis Submission Colloquium only.
- d. Generally, change of Guide is not permissible. It may be permitted only under exceptional circumstances such as death / disability / leaving of the guide from the University / if the topic is of the inter disciplinary nature/ other medical conditions of the Guide or legal actions on the Guide by the administration. However, if there is any written complaint about conflict between the Guide and the candidate, the Dean of Research and Innovation Council shall refer the matter to a Committee constituted by the University whose decision has to beplaced before the Vice-Chancellor for final decision.

# **19.** Publication of the Thesis:

If a candidate intends to publish the Thesis, he / she shall seek the permission of the University after paying the prescribed fee.

# **20.** Equivalence of Ph D degree awarded by Foreign University:

- **20.1** REVA University shall have a Standing Committee for the purpose of determining the equivalence of the degree awarded by the foreign University. Such cases of Ph.D. degree awarded by a Foreign University shall be referred to the Standing Committee.
- **21.** Any issue not covered by the foregoing shall be governed by the decision of the Vice-Chancellor.
- Appendix -1: Syllabus of Research and Publication Ethics (RPE) Course Appendix -2: Proforma for Short Report on the PhD Thesis
- Appendix -3: Guidelines for Doctoral Research Appendix -4: Guidelines for Preparing Thesis
- Appendix -5: Sample Title Page for Ph.D. Thesis
- Appendix -6: Format of Certificate
- Appendix -7: Form for Provisional Registration for Ph.D. Appendix -8: Format for Submission of Pre Colloquium Report
- Appendix 9: Format for Submission of Research Proposal (Tentative Synopsis)

# SYLLABUS OF RESEARCH AND PUBLICATION ETHICS (RPE) COURSE

# **COURSE STRUCTURE**

The course comprises of six modules listed in table below. Each module has 4-5 units.

Modules	Unit Title	Teaching Hours
	Theory	
RPE 01	Philosophy and Ethics	4
RPE 02	Scientific Conduct	4
RPE 03	Publication Ethics	7
	Practice	
RPE 04	Open Access Publishing	
RPE 05	Publication Misconduct	
RPE 06	Databases and Research Metrics	
	Total	

# **SYLLABUS IN DETAIL**

# I. THEORY

# Unit - 01: PHILOSOPHY AND ETHICS (3 hrs.)

- 1. Introductiontophilosophy:definition,natureandscope,concept,branches
- 2. Ethics:definition, moralphilosophy,natureofmoraljudgementsandreactions

# **Unit - 02: SCIENTIFICCONDUCT (5hrs.)**

- 1. Ethics with respect to science andresearch
- 2. Intellectual honesty and research integrity
- 3. Scientific misconducts: Falsification, Fabrication, and Plagiarism (FFP)
- 4. Redundantpublications:duplicateandoverlappingpublications,salamislicing
- 5. Selective reporting and misrepresentation ofdata

# **Unit - 03: PUBLICATION ETHICS (7 hrs.)**

- 1. Publication ethics: definition, introduction and importance
- 2. Bestpractices/standardssettinginitiativesandguidelines: COPE, WAME, etc.
- 3. Conflicts of interest

- 4. Publication misconduct: definition, concept, problemsthatlead to unethical behavior and vice versa, types
- 5. Violation of publication ethics, authorship and contributorship
- 6. Identification of publication misconduct, complaints and appeals
- 7. Predatory publishers and journals

# II. PRACTICE

# Unit - 04: OPEN ACCESS PUBLISHING (4 hrs.)

- 1. Open access publications and initiatives
- 2. SHERPA/RoMEO online resource to check publisher copyright & self-archiving policies
- 3. Software tool to identify predatory publications developed by SPPU
- 4. Journalfinder/journalsuggestion toolsviz. JANE, Elsevier Journal Finder, Springer Journal Suggested, etc.

# Unit - 05: PUBLICATION MISCONDUCT (4hrs.)

# A. Group Discussions (2 hrs.)

- 1. Subject specific ethical issues, FFP, authorship
- 2. Conflicts of interest
- 3. Complaints and appeals: examples and fraud from India and abroad

# B. Software tools (2 hrs.)

Use of plagiarism software like Tumitin, Urkundand other open source software tools

# **Unit - 06: DATABASES AND RESEARCH METRICS(7hrs.)**

- A. Databases (4 hrs.)
- **1.** Indexing databases
- 2. Citation databases: Web of Science, Scopus, etc.

# B. Research Metrics (3 hrs.)

- 1. Impact Factor of journal as per Journal Citation Report, SNIP, SIR, IPP, Cite Score
- 2. Metrics: h-index, g index, i10 index, altmetrics

## PROFORMA FOR SHORT REPORT ON THE PhD THESIS

[To be signed by the Examiner and sent to the Chairperson, Board of Examiners of the Thesis along with a detailed Evaluation Report, either Hardcopy or FAX or Scanned Image]

- 1. Name of the Candidate (to be filled in by the office)
- 2. Title of the Thesis (to be filled in by the office)
- 3. Faculty (Subject / Discipline (s) (to be filled in by the office)
- 4. Name and Address of the Examiner (to be filled in by the office)

Sl.NO.1 TO 4 TO BE FILLED BY the Office of CoE (controller of examination)

Brief recommendation of the Examiner:

[Put a tick mark  $\sqrt{}$  in the box provided against reply (i.e. Yes or No) whichever is applicable]

- i. Whether the Thesis in its present form is acceptable for the award of Ph.D.degree? YES()/NO()
- ii. Whether the Thesis has to be revised and resubmitted to you for
- iii. revaluation by you ?YES ( ) /NO ( )
- iv. (If Yes, please include detailed suggestions for revision in yourReport.)
- v. Whether the Thesis has to be revised and resubmitted with certification of corrections by the Guide, without sending the revised Thesis to you for revaluation? YES () / NO()
- vi. Any specific suggestions / points for open Viva-Voce Exam? (Please specify, ATTACH ADDITIONAL SHEETS, if needed)

(v)	Whether you reject the Thesis outright?	YES	( ) /	NO ( )
	Date:		S	Signature of Examiner

# **GUIDELINES FOR DOCTORAL RESEARCH**

# The Ph.D. program of the REVA University entails two stages:

- 1. Entrance Test, Provisional registration, Course Work and Registration
- **2.** Bi-Annual Progress report presentations, Thesis Submission, Evaluation, and Award of Degree.

The following guidelines indicate procedures to be followed to maintain certain minimum standards in doctoral work. These procedures should help in minimizing large scale variations in the formats followed in doctoral work.

# 1. Entrance Test, Provisional Registration, Course Work and Registration:

- 1.1. Registration for Ph D shall only be through entrance test, and interview / viva-voce.
- 1.2. All candidates applied for registration to Ph D in REVA University shall have to appear for entrance test conducted by REVA University annually. Foreign candidates are exempted from Entrance Test because of Visa requirements.
- **1.3.** Those candidates securing a minimum 50% marks in entrance test shall be invited for interview / viva-voce for selection of candidates wherein candidates are required to discuss their research interest / area through presentation.
- **1.4.** The Selection of candidates for provisional registration shall be based on the performance in the interview / viva voce only, provided further that such a selection depends on availability of the guide in the subject / area of interest of the candidate.
- 1.5. The selected candidates have to undergo a course work of 6 months duration and has to secure a minimum of 55% of marks in the course work in order to be eligible to continue in the research program and submit the thesis.
- **1.6.** Upon successful completion of the course work the candidates have to submit research proposal and give pre–registration colloquium before the Doctoral Committee.
- 1.7. After selection, a candidate has to provisionally register as per Section 6. Application for Provisional Registration may be obtained from the office of the Dean of Research and Innovation Council by paying prescribed fee. Date of Provisional Registration for foreign candidates is the date of reporting for doctoral work to the Director of the School concerned with a valid research Visa.
- 1.8. All candidates shall compulsorily undergo course work as per Section 9 and secure a minimum55% marks. After successful completion of Course Work as certified by the Dean of Research and Innovation Council as per Section, candidates have to give a Pre-Registration Colloquium as per Section 11 and submit research proposal.
- **1.9.** After successful completion of Pre-registration Colloquium, candidates have to apply to the Dean of Research and Innovation Council as per Section 12, by payment of prescribed fee, for Registration.

- **1.10.** Scholars have to submit Research Progress Reports once in every SIX months and make presentations before Doctoral Committee.
- 1.11. Scholars also have to pay prescribed tuition fee (and laboratory fee wherever applicable), before the end of every year from the date of Provisional Registration, without fail. Failure to submit two successive Research Progress Reports / payment of annual tuition fee (and laboratory fee wherever applicable) entails cancellation of Registration.

## 2. Ph D Thesis Submission:

- **2.1** A scholar is eligible to submit his / her Thesis only:
- (i) after completing 3 years of research work from the date of Provisional Registration, as per Section 14.1; and
- (ii) after publishing / producing acceptance letters as main author / co-author, for at least one research article in refereed journal and two research paper presentations in conferences / seminars, based on his / her research work related to his / her Thesis, as per Section 14.2
- 2.2 A scholar has to prepare Thesis and submit 5 copies of synopsis and give pre-thesis colloquium before the Doctoral Committee.
- 2.3 After successful completion of pre-thesis colloquium, a scholar has to submit 15 copies of Synopsis and 5 copies of Thesis, as per Section 14.4 and 14.6(a) respectively.
- 2.4 All candidates shall pre-test using anti plagiarism software, before submission of the thesis and follow the guidelines below while preparing their Theses.
- 2.5 The University would cross check the malpractice / plagiarism using anti plagiarism software and shall initiate necessary disciplinary action against the candidate and the Guide, in addition to rejecting thesis.

# **GUIDELINES FOR PREPARING THESIS**

# **The Abstract**

An Abstract shall be included in the preliminary section of the Thesis. The abstract in the body of the Thesis shall be in the same style as that used in the rest of the Thesis and shall be placed after the Certificate page. The Abstract shall reflect the contents of the Thesis

# **Evidence of Publication and Paper Presentations**

At the end of the Thesis, reprint of ONE article published in refereed journal or acceptance letters with manuscripts, and TWO research papers presented in conferences/ seminars along with certificates from the organisers be enclosed.

# **Thesis Copies**

Five bound copies of the Thesis along with the electronic version of Thesis in CD in PDF form must be submitted and the candidate is advised to keep one bound copy of the Thesis and the electronic version in CD in PDF form.

# **Certificate**

The certificate(s) in the enclosed format shall be provided in the Thesis.

# **Copies**

Good quality paper must be used for copies and photocopy of the final copy shall be such that it ensures consistent quality without gray or dark casts to the background. All copies shall be on white A4 paper and on one side of a paper.

## **Typeface**

Type size should be 11 point or larger. Script or ornamental fonts shall not be used. Printmust be letter quality. Accent marks and hand annotations if any, must be done neatly in black ink.

#### **Margins**

Margins on the binding edge must be 1.5 inches and all other margins must be one inch. (Pagination, headers, and/or footers may be placed within the margin, but margin from the edge of the page should be maintained as aforesaid.

# **Spacing**

One and a half or double spacing is to be followed in the main body excepting in presenting foot notes, tables etc which may be single space. Final copies of the Thesis must be clear and attractive. Each copy should be reviewed for evenness and clarity of type, missing pages and crooked text.

# **Order and Content**

- Title page.
- Certificate page containing the signature of the candidate, guide, co-guide, if any, and Director of the School.
- Certificate that the thesis has been revised and resubmitted based on suggestions by examiners, if applicable, signed by the candidate, guide, co-guide, if any, and Director of the School.

- Preface and/or Acknowledgement Table of contents with page references
- List of tables with titles and page references
- List of illustrations with titles and page references
- Abstract
- Text Chapter wiseReferences Appendices, if any
- Bibliography or list of references, if any

# **Pagination**

Each page of the manuscript, including all blank pages, and pages with photographs, tables, figures, maps, Computer printouts shall be assigned a number. Consistent pagination, at least one- half inch from the right hand top corner of the page, shall be used throughout the Thesis.

# Landscape

For Text, Illustrations, Charts, Graphs, etc. printed in landscape form, the orientation shall be facing away from the bound edge of the paper.

# **Important to Note**

- 1. For the preliminary pages, small Roman numbers (i, ii, iii, iv etc.) shall be used.
- 2. For the remainder of the Thesis, the continuous pagination in Arabic numerals shall be followed.
- 3. Address of the candidate / Guide must be School and University address where research was carried out. The Address shall not contain personal affiliation or any other official information / details about the candidate / Guide such as qualification, designation, etc.
- 4. Official logo / symbol of the REVA University / Research Institute must not be used anywhere in the Thesis.
- 5. No dedication of any sort is permitted anywhere in the Thesis.

# SAMPLE TITLE PAGE FOR Ph.D. THESIS

(Title of the Thesis)		
a Thesis submitted to the REVA University, Bangalore in fulfilment of the requirements for the		
Degree of Doctor of Philosophy (Ph.D.) in (subject)		
by(Name of the Candidate)		
Guide(Name of the Guide)		
(Name of the Guide)		
Co-Guide(s)Name(s) of Co-Guide(s) (if any)		

REVA UNIVERSITY
BENGALURU
Year, Month of submission of the Thesis

# FORMAT OF CERTIFICATE

I, Mr. / Ms	(name of Doctoral car	ndidate)	, certify that
this thesis is the result of	f research work done by m	ne under the supervision	of Dr
(	name of the Guide)	and	
(name of the co-guide(s)	), if any), at	(name of Sch	hool where research
work was carried out)	, REVA	University, Bengaluru.	
I am submitting this thes	sis for possible award of th	ne degree of Doctor of	
Philosophy (Ph.D.) in	(name of subject (s)	/ discipline (s))	of REVA
University, Bengaluru.			
I certify that the thesis h	as undergone plagiarism v	verification and there is	no plagiarismfound in
the thesis.			
•		has not been submitt	ted for award of any other
degree/diploma of this o	or any other University.		
(Signature of Doctoral c	candidate)		
Signed by me on	. ( date )		
Signature of Guide and	co-guide(s), if any and	Date :	
		Counter sign	ed by
Date:	Signatu	re of Director of School with name and o	l, REVA University fficial seal.

# REVA UNIVERSITY

# FORM FOR PROVISIONAL REGISTRATION FOR Ph.D.

Name	Passport Sized Photo				
Highest Educational Qualification					
Tighest Educational Quantification					
Permanent Address					
Mailing Address					
E-Mail					
Telephone: Landline / Mobile					
Address of place of Work, if employed School/College / Research Centre of the REVA University where doctoral research will be carried out					
<ul> <li>With Fellowship</li> <li>Without Fellowship</li> <li>In service* (those employed)</li> <li>Name and official address of the Guide</li> </ul>					
Highest Qualification of guide relevant to the Discipline (s) in whichthe candidate wishes to work Name and official address of Co-guide (s), if any					
Highest Qualification of Co-guide (s) relevant to the discipline (s) in which the candidate wishes to work					
Subject (s) / Discipline (s) of research work Details of fee remitted to the University					
Date:	Signature of the candidate				
Date:	Signature of the Guide and Co-guide (s), if any				
Date:	Counter-signature of Chairperson/Director				

# **Enclosures**

The following documents are to be attached.

- 1. Attested photocopies of Masters Degree certificate and Marks cards.
- 2. Attested photocopy of Fellowship award document (for candidates with fellowship).
- 3. Registrar's permission letter, in original (for those without fellowship).
- 4. No objection certificate from the employer, in original (for in-service candidates).
- 5. Acceptance certificate from the Guide and co-guide (s), if any, in original.
- 6. Guide's declaration certificate about number of candidates presently working under him / her.
- 7. Similar declaration from co-guide (s), if any.
- 8. Bank Challan / Receipt for having remitted the provisional registration fee, in original.

5.

# FORMAT FOR SUBMISSION OF PRECOLIQUIUM REPORT

Name of the Candidate	:				
Name of the Research Guide	:				
Title of the Research problem	:				
School	:				
Date, time and place of the colloquium:					
Members Present: 1. 2. 3. 4. 5.					
Observations / Comments about the presentation by candidate:					
Recommendation of the Doctora	1 Committee:				
Signature of the Members preser <b>1.</b>	nt:				
	nt:				
1.	nt:				

# Appendix -9 FORMAT FOR SUBMISSION OF RESEARCH PROPOSAL (TENTATIVE SYNOPSIS) Introduction / Background of the Study:





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