

## 9. Ph.D. PROGRAMME

### RULES AND REGULATIONS FOR ADMISSION TO THE DEGREE OF DOCTOR OF PHILOSOPHY

**R.1.** A candidate seeking admission to the Ph.D. Degree course shall apply to the Registrar in the prescribed application form for admission starting from 1<sup>st</sup> July of every academic year.

**R.2. ELIGIBILITY**

For admission to the Ph. D programme in a subject in any faculty, the applicant shall fulfill the following conditions:

- a) Candidates having minimum of 55% marks for open category and 50% for SC/ST category at Post-Graduate examination.
- b) Candidates having postgraduate degree declared passed in faculties where there is no provision of grade/class.

**R.3. PROCEDURE FOR ADMISSION**

- a) The University shall admit doctoral students through an Entrance Test conducted at the level of University. Those students who qualify UGC/CSIR (JRF) Examination/SLET/GATE/teacher fellowship holder or have passed M.Phil. programme need not appear for Ph.D. Entrance Test.
- b) It shall be followed by an interview to be organized by the School/Department/Institution/University as the case may be.
- c) At the time of interview, doctoral candidates are expected to discuss their research interest/area.
- d) Only the predetermined number of students may be admitted to Ph.D. programme
- e) The University may decide separate terms and conditions for those students who qualify UGC/CSIR (JRF) Examination/SLET/GATE/teacher fellowship holder or have passed M. Phil Programme for Ph.D. Entrance Test.
- f) While granting admission to students to Ph.D. Programmes, the Department will pay due attention to the National/State Reservatory Policy.

**R.4. ALLOCATION OF SUPERVISOR**

The allocation of the supervisors for selected students shall be decided by the Department in a formal manner depending on the number of student per faculty member, the available

specialization among the faculty supervisors, and the research interest of the student as indicated during interview by the student.

The allotment/allocation of supervisor shall not be left to the individual student or teacher.

- R.5.** The registration of candidates for Ph.D. degree shall be considered as provisional till the candidate successfully completes the pre-Ph.D. theory course work.
- R.6.** Candidate who registers as a student for Ph.D. will have to attend the pre-Ph.D. theory course regularly. These candidates will fill up the form for admission to Pre - Ph. D. theory examination and pay the examination fees. The candidate shall have to complete the pre-Ph.D. theory course work before submission of Ph.D. thesis.
- R.7.** Candidate can apply for admission to the Ph.D. programme in the prescribed application form and shall submit to the University;
- Twelve copies of proposal/synopsis as indicated in the Annexure-I
  - A copy of statement of marks (basic degree and P.G.Degree, NET/SET/ GATE /J.R.F etc.)
  - Migration/Transfer Certificate if necessary.
  - The registration form duly filled in and signed alongwith registration fees as mentioned in R.7 will be forwarded to the Registrar through the Head of the University Department/Principal/Director of Recognized Institution.
  - Authenticated copy of professional experience alongwith copies of the published research work in the proposed area wherever necessary.
  - Sponsorship letter from the Institution or Company wherever necessary
- R.8.** A candidate may work under any recognized research guide of the University, except relatives such as husband / wife / daughter / son / brother / sister, who shall indicate on the application form his/her, willingness to guide the student.
- R.9. Guidance by Two Guides :**
- A candidate may be allowed to register his name under the guidance of two recognized guides one of which will be the main guide and the other will be the co-guide belonging to the same Department or different Departments of the University / recognized Institutions/ affiliated Colleges provided that:

- i. The subject matter of the research is concerned with two different specializations of the same subject and the same Department.
  - ii. The subject matter of the research is of interdisciplinary nature concerning two different departments in the University.
  - iii. The subject matter of the research is of interdisciplinary nature or is concerned with use of research facilities and equipments in the University Departments or the recognized research institute or college.
- b) Both guides will have equal status.
- c) A candidate has to submit progress report every six months and submitted to the University through Research Guide.
- R.10.** After submission of a research proposal/synopsis by a student duly signed by a student and the guide for registration to the Ph.D. degree course, the student along with his guide should be called before a Scrutiny Committee for oral presentation. The Scrutiny Committee should consists of the Head, Two experts belonging to the same specialization nominated by the Head, Guide of the research student. The Head of the Department will be the Chairman of the Scrutiny Committee. The Scrutiny Committee will go into the details of the proposal and will instruct the student to submit the proposal or improve the proposal or resubmit the proposal for the consideration of the Research and Recognition Committee. The quorum for the Scrutiny Committee shall be three members. In case of the resubmission of the proposal, specific written instructions be given to the concerned candidate. The resubmitted proposal will be forwarded by the Chairman of the Scrutiny Committee along with his remarks to the University office. All applications scrutinized by the Scrutiny committee with its recommendations shall be placed before Research and Recognition Committee for its final decision.
- R.11.** Fee Structure As prescribed by the University authorities from time to time
- R.12. SIZE, STYLE AND BINDING**

A candidate submitting Ph.D. thesis for the University Degree is required to follow the rules noted below regarding the size, style and binding of thesis, except in special case in which the Guide or Head of Institute recommends that it will not be possible to comply with the

requirements of these rules giving reasons. The copies shall be bound in accordance with the following specifications:

- a) Size of the paper should be A-4, (25 cms X 20 cm.) except for drawings, graphs, photographs and maps on which no restriction is placed. A margin of 3.5 cms be left on the left hand side and bound in a standardized form.
- b) DEGREE, YEAR and NAME of Student and Guide and short title should be printed neatly and legibly on the front cover as indicated in Annexure -II
- c) A thesis which consists of a collection of pamphlets of accepted/published papers or a single pamphlet must be bound in a similar cover.
- d) The thesis should be typed on both sides of the page in single spacing.
- e) The thesis shall be submitted in the form of loose papers and in computer readable form (soft Copy) enabling the candidate to incorporate changes after updating the data, if suggested by the Scrutiny Committee. In addition to the hard copies, final approved thesis shall be submitted in C.D. or Computer readable form and the University shall make it available on the Web.

The Ph.D. thesis should embody:-

- a) Results of the research stating whether the work is based on the discovery of new facts by the candidate or of new relations of facts observed by others and how the work contributes to the general advancement of knowledge.
- b) The candidate shall indicate the sources from which his/her information has been derived and the extent to which his/her work is based on the work of others and shall indicate which portion or portions of his/her thesis he/she claims to be original.

### **R.13. RULES OF SUBMISSION**

- a) Upon satisfactory completion of course work and research methodology, which shall form part & parcel of Ph.D. Scholar shall undertake research work and produce a draft thesis after completion of two years.
- b) Prior to submission of the thesis, the student shall make pre-Ph.D. presentation in the Department that may be open to all faculty members and research students, for getting feedback and comments, which may be suitably incorporated into the draft thesis under the advice of the supervisor.

- c) Ph.D. candidates shall publish two research paper in a referred journal before the submission of the thesis/monograph for adjudication, and produce evidence for the same in the form of acceptance letter or the reprint.
- d) A candidate shall make a presentation of his / her thesis before Scrutiny Committee at least two months prior to submission of the thesis. The research student shall incorporate suggestions made by the committee and only then the thesis shall be submitted. (As per the norms suggested by UGC time to time).
- e) A candidate may submit his thesis any time during the year, after the completion of minimum prescribed period of two years and completion of Pre - Ph. D theory course work. A candidate shall submit to the university twenty copies of synopsis and five copies, typewritten or Xeroxed by both side of the thesis with necessary fees along with soft and hard copy (CD read only). The procedure for appointment of examiners will be undertaken soon after the candidate submit his/her synopsis and pays the necessary deposit.

### **R.14. APPOINTMENT OF REFEREES**

The Research and Recognition Committee in the subject concerned shall suggest the names of eight experts. The teacher, who has guided the candidates work, shall be the internal referee. Appointment of the referees shall be made by the competent authorities preferably by random selection from pre-existing pool of names generated for each subject with various specializations by the Committee. There shall be two referees, one from the State, One from Outside the State of Maharashtra. The internal and external referees should submit their evaluation reports within one month of the receipt of the thesis in the prescribed proforma along with a detailed report.

### **R.15. OPEN DEFENCE**

There shall be a *viva-voce* with Open Defence System. The University shall send sufficient copies of synopsis to concerned department to circulate the faculty and shall put one copy on the entire notice boards well in advance at least one week before the *viva-voce*. The Open Defence system shall be conducted only after receiving favorable reports from the referees. Within one month from the receipt of the positive reports, one of the External Referees nominated by the Vice - Chancellor and the Internal Referee shall conduct the

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Open Defence of the candidate and submit their reports jointly through the Chairperson of Open Defense. The Head of the Department or the Dean of the concerned faculty or the senior teacher in the subject concerned nominated by the Vice - Chancellor shall act as a Chairperson for the open defence. The other external referee may send questions in writing to the referees attending the *viva - voce* to seek clarification on any point in the thesis. However, queries raised by the external referees in their reports be placed before the open defence. Any interested person can attend and ask any related queries. But decision of the internal and referee will be final.

### **R.16. DECLARATION OF RESULT**

On the final approval of the Vice-Chancellor, the Controller of Examination shall declare the result.

- R.17.** In case of any controversy, the rules and regulations prescribed by the U.G.C. or any other similar competent authority shall supersede.

**Pre-Ph.D. Course work**  
**Choice based credit system (CBCS)**  
**(Medical Sciences)**  
**(Introduced from June, 2016 onwards)**

The candidates registered for Ph. D degree are required to complete pre- Ph.D. course consisting of following three papers during the first year of registration. Paper I and Paper II are compulsory papers and candidate may select paper III from the paper III (A-J) as per his/her research topic/area. Total course work is of 12 credits.

### **Pre- Ph. D structure-**

**PAPER I: Research Methodology and Computer basics (4 credits)**

**PAPER II: Recent Topics in Medical Science (4 credits)**

The candidate may select one of the following papers as Paper III:

#### **Group of Paper III (Elective)**

PAPER III (A): Hospital Waste Disposal Management (4 credits)

PAPER III (B): Stem Cells and Regenerative (4 credits)

PAPER III (C): Advances in Physiology (4 credits)

PAPER III (D): Basic Environmental Studies (4 credits)

PAPER III (E): Advances in Microbiology (4 credits)

PAPER III (F): Topic in Biochemistry (4 credits)

PAPER III (G): Topic in DNA Nanobiosensor (4 credits)

PAPER III (H): Nanotechnology for Hospital Waste Treatment (4 credits)

PAPER III (I): Advances in Medical Science (4 credits)

PAPER III (J): Advance in Pharmacology (4 credits)

Paper III (K) Advances In Anatomy (4 credits)

Paper III (L): Pharmaceutical Sciences (Advance Pharmaceutics (4 credits)

Paper III (M): Advanced Topics in Radiation Therapy (4 credits)

Paper III (N): Deposition of Films and Their Applications (4 credits)

Paper III (O): Advances in Psychiatry (4 credits)

#### **1.0 Course information**

- As per the University Grants Commission (Minimum Standards and Procedure for Award of M.Phil./Ph.D. Degrees) Regulations, 2016, following are the Credit, Requirements, number, duration, syllabus, minimum standards for completion of the Course Work:
- The credit assigned to the Ph.D. course work shall be a minimum of 08 credits and a maximum of 16 credits.

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- The course work shall be treated as prerequisite for Ph.D. preparation. A minimum of four credits shall be assigned to one or more courses on Research Methodology which could cover are; as such as quantitative methods, computer applications, research ethics and review of published research in the relevant field, training, field work, etc. Other courses shall be advanced level courses preparing the students for Ph.D. degree.
- All courses prescribed for Ph.D. course work shall be in conformity with the credit hour instructional requirement and shall specify content, instructional and assessment methods. They shall be duly approved by the authorized academic bodies.
- The Department where the scholar pursues his/her research shall prescribe the course(s) to him/her based on the recommendations of the Research Advisory Committee, the research scholar.
- All candidates admitted to the Ph.D. programs shall be required to complete the course work prescribed by the Department during the initial one or two semesters.
- Candidates already holding M. Phil. degree and admitted to the Ph.D. program, or those who have already completed the course work in M.Phil. and have been permitted to proceed to the Ph.D. in integrated course, may be exempted by the Department from the Ph.D. course work. All other candidates admitted to the Ph.D. program shall be required to complete the Ph.D. course work prescribed by the Department.
- Grades in the course work, including research methodology courses shall be finalized after a Combined assessment by the Research Advisory Committee and the Department and the final grades shall be communicated to the Institution/College.

### 2.0 Scheme of Examination and Passing:

1. This course will have 100% external (University written examination of 3 hours duration for each course paper). All external examinations will be held at the end of course work and will be conducted by the University as per the existing norms.
2. Each question paper will be of 100 marks.
3. Each question paper will consists of six questions of 25 marks each and student should answer any four questions out of six questions.

### 3.0 Standard point scale for grading:

Grade	Marks	Grade Points
<b>O</b>	70 & above	<b>7</b>
<b>A</b>	60-69.99	<b>6</b>
<b>B</b>	55-59.99	<b>5</b>
<b>C</b>	50-54.99	<b>4</b>
<b>D</b>	45-49.99	<b>3</b>
<b>E</b>	40-44.99	<b>2</b>
<b>F (Fail)</b>	39.99 & below	<b>1</b>

A Ph.D. scholar has to obtain a minimum of 55% of marks or its equivalent grade in the UGC7-point scale (or an equivalent grade/CGPA in a point scale wherever grading system is followed) in the course work in order to be eligible to continue in the program and submit the thesis.