

# U.P. TECHNICAL UNIVERSITY LUCKNOW

## Ordinances for

### The Degree of Doctor of Philosophy

[Approved by Academic Council in its meeting dated 14<sup>th</sup> July 2007]

#### 1. ELIGIBILITY

A candidate seeking registration for the degree of Doctor of Philosophy (Ph.D.) in Uttar Pradesh Technical University (here-in after called as University) must hold one of the following qualifications:

- (a) Master's degree with first division in the appropriate field of Engineering/ Technology/ Pharmacy/ Management / Architecture of the University or equivalent.
- (b) Bachelor's degree with first division in appropriate field of Engineering/ Technology / Pharmacy / Architecture, of the University or equivalent with two years of experience in Industry / Research/ Teaching in reputed organization/ institution.
- (c) MCA degree of the University or equivalent (for Computer Science & Engineering subject only) with first division.
- (d)
  - (i) Master's degree with first division in the field of Biotechnology /Bioinformatics of a University.
  - (ii) Master's degree with first division in the field of Phys Chemistry / Mathematics of a University.
- (e) Notwithstanding anything contained in above-mentioned rules (a) to (d), the eligibility criteria/ guidelines prescribed and/or issued by All India Council for Technical Education (AICTE) and/or UGC from time to time shall also be applicable for registration to Ph.D. Programme(s) of the University.

#### 2. REGISTRATION

- (a) The University shall invite applications for registration to Ph.D. programme twice in a year (once in each semester). However, candidate may download application proforma from website of the University and apply to the University.

- (b) A candidate seeking registration for Ph.D. degree must apply to the University on the prescribed application form and the research proposal must be on the format as given at Appendix -I.
- (c) The application form should be accompanied by:
  - (i) A prescribed registration fee as applicable in the University from time to time (Appendix - II).
  - (ii) A no objection certificate (NOC) from the employer.
  - (iii) A certificate from the head of organization/institution which the candidate opts as the place of work indicating that the necessary facilities for the proposed work exist in the organization/ institution and shall be made available to the candidate.
  - (iv) A statement of the work that he/she might have done on the subject related to the topic of study and the copies of the research papers that he/she might have published.
  - (v) Two copies of bio data of supervisor(s)
- (d) A candidate shall normally be registered for Ph.D. degree in the subject in which he/she has passed his/her qualifying examination as stated in clause (1) or in any other field relevant to it. In special cases a candidate qualifying in subject-X may be permitted for registration to Ph.D. programme in subject-Y provided the RDC of subject Y accepts the topic falling in its scope.
- (e) A candidate who has registered for Ph.D. degree in any other university and has requisite qualification for registration to Ph.D. programme of the University as prescribed in (1) may be allowed to transfer his/her registration to the University provided he/she provides a no objection certificate from the previous university, the concerned selection committee and the RDC recommends and the Academic Council / Executive Council approves and also deposits the requisite registration and other fees of the University. In such case the date of registration in the previous university will be acceptable.
- (f) The selection of a candidate shall be made through written test / interview / presentation by the selection committee which is sub - committee of the RDC and shall be nominated by the Vice-Chancellor. Initially, the selected candidate shall be registered provisionally. The date of provisional registration shall be the date

of selection committee meeting. The acceptance of the Ph.D. topic and synopsis shall be subject to the recommendations of the RDC and the Academic Council and subsequent approval of the Executive Council .In case of any revision in the Ph.D. topic and/ or synopsis is proposed by the candidate, the date of registration shall be as decided by the concerned RDC and Academic Council/Executive Council.

- (g) The Selection Committee shall consist of the following members:
- (i) Convener of RDC of concerned subject Chairman
  - (ii) One expert of the concerned subject not below the rank of professor belonging to the affiliated institution/ college of the University to be nominated by the Vice-Chancellor Member
  - (iii) Two experts of the concerned subject not below the rank of professor but not belonging to the University to be nominated by the Vice-Chancellor. Member

If the Selection Committee is satisfied with the performance of the candidate, it will recommend for provisional registration to the concerned RDC, otherwise, the candidate shall be given another chance to appear before the Selection Committee in the next meeting not earlier than a period of six months. If the performance of the candidate is again found unsatisfactory his/ her case will be rejected.

- (h) Candidate(s) admitted under clause (1) (a) shall have to qualify atleast two pre Ph. D. courses and candidate(s) admitted under clause (1) (b), (1) (c) and (1) (d) shall have to qualify atleast six pre Ph. D. courses of M. Tech. Level within one year as may be prescribed by the concerned RDC. The RDC will be empowered to increase the pre Ph. D. courses for any candidate. The RDC shall also prepare a database of the courses to be audited by candidate(s).
- (i) The registration of a candidate shall be confirmed provided he/ she qualifies the required pre Ph. D. courses as prescribed in 2(h) and the RDC satisfies with the performance.

### 3. SUPERVISOR (S)

- (a) A person duly approved by the RDC shall be permitted to act as a supervisor. In case a person is not approved earlier, the candidate shall enclose two copies of bio-data of the person proposed as supervisor, alongwith the application form for approval of the RDC.
- (b) A person shall be eligible to act as supervisor provided he/ she holds a Ph.D. degree in the concerned or related subject, has good publications in reputed scientific / technical journals and who is one of the following:
  - (i) Principal/Director, Professor, Assistant Professor/Reader of affiliated college/ institution of the university or of reputed institutions, like IIT,s, IISC, IT-BHU, NITs, state funded institutions CSIR laboratories or University departments.
  - (ii) Lecturer with at least five years teaching/ research/industrial experience in a affiliated college/ institution of the University or NITs, State funded institutions and University departments.
- (c) A person, who is registered for a Ph.D. degree shall not be permitted to act as a supervisor in any subject of the University.
- (d) The maximum number of candidates that can be registered under a supervisor at any particular time shall be two for Lecturer, three for Assistant Professor / Reader and Five for Professor. In special situations, two more candidates can be registered provided the concerned RDC recommends and is approved by the Vice-Chancellor.
- (e) A candidate shall normally not have two supervisors that too should not be from the same place. In exceptional cases, more than two supervisors may be permitted provided the RDC recommends with due justifications and is approved by the Vice- Chancellor.
- (f) In most of the cases, the University Research Committee (URC) shall decide supervisor(s) for a candidate. For this purpose, the University shall prepare a database by inviting detailed bio - data from experts of the affiliated colleges / institutions, IITs, IISC, IT-BHU, NITs, State funded Institutions and Universities, which shall be approved by the URC on recommendation of the concerned RDC.
- (g) In case a duly approved supervisor later on ceases to act as the supervisor by virtue of his/her retirement or transfer or otherwise,

the candidate may be permitted to choose another supervisor provided the above-mentioned criteria (a) to (e) are satisfied for the same topic or otherwise and the concerned RDC approves it.

**Note :** In case a Professor in a particular field have no Ph.D. degree but having reputed research publications and belongs to a reputed research institute, may be nominated as a supervisor by the RDC with the approval of Vice-Chancellor relaxing the clause 3(b) of Ph.D. ordinance.

#### 4. RESEARCH DEGREE COMMITTEE

(a) There shall be a separate Research Degree Committee for each of the subjects falling under different Boards of Study.

**(b) Constitution of RDC**

Each RDC shall consist of

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|-------|--|-----------|
| (i)   | Vice-Chancellor  | Chairman  |
| (ii)  | Convener of RDC  | Member    |
| (iii) | Two experts of the subject in the concerned area not below the rank of Professor and belonging to the University to be nominated by the Vice- Chancellor.  | Member    |
| (iv)  | Three experts of the subject in the concerned area of which two should be of the Professor rank and one may be the Assistant Professor and not belonging to the University to be nominated by the Vice-Chancellor. | Member    |
| (v)   | Registrar  | Secretary |

**Note** (i) In case no Ph. D. expert is available in a particular subject, senior professor(s) having reputed research publications may be nominated as the experts in RDC by the Vice - Chancellor relaxing expertise as mentioned in clause b (iii) & b (iv) above.

(ii) A RDC member shall be that expert who has good publications to his/her credit and is also engaged in the research related to the subject concerned.

**(c) Duties and powers of RDC**

RDC shall perform the following functions:

- (i) Examine the summary of the proposed Ph.D. work for provisional registration of a candidate and provide its recommendation. The committee shall satisfy itself that the proposed topic is one on which the Ph.D. work can profitably be pursued under the guidance of the proposed supervisor(s), that the candidate possesses the requisite qualifications and that the adequate facilities and equipments for the work do exist at the proposed place of work.
- (ii) The RDC of a subject will meet twice in each academic session at regular intervals.
- (iii) Half of the members of the RDC shall form the quorum for the meeting. However, presence of one external expert is essential in the meeting.
- (iv) The minutes of the RDC meeting shall be reported to the next meeting of the Academic Council for approval.
- (v) If convener is unable to attend the meeting, the senior most member present in the meeting shall act as the convener.
- (vi) A candidate shall have to submit six monthly progress report to the University through the supervisor with a recommendation that he / she is satisfied with the progress of the candidate before scheduled presentation in the RDC meeting. He / she is also required to present progress in the scheduled RDC meetings. If the candidate could not present progress due to genuine reasons in the RDC meeting, but the progress report sent by the supervisor is satisfactory, he / she will be permitted to continue, otherwise, the RDC may recommend cancellation of the registration. In case, the candidate does not turn up twice for presentation in the RDC meeting, his / her registration shall be cancelled.

**5. DURATION**

- (a) The minimum period for submission of Ph. D. thesis for M. Tech. / M. Phil./ MS candidates enrolled as full time shall be two years and enrolled as part- time shall be three years from the date of provisional registration.

- (b) The minimum period for submission of Ph. D. thesis for M. SC. / MBA / MCA / B. Tech. / B. E. candidates enrolled as full time shall be three years and enrolled as part-time shall be four years from the date of provisional registration.
- (c) A candidate may be allowed to modify the scheme of his/her research work with the approval of the concerned RDC, but in which case he/she shall not submit his/her Ph.D. thesis before the expiry of at least six months from the date of approval for such a change.
- (d) The Maximum period permitted for submission of Ph. D. thesis for a candidate shall normally be five years from the date of provisional registration. In special circumstances, a maximum extension of two years in instalments of six month can be provided by the Vice - Chancellor on recommendation of the RDC making careful scrutiny of the candidate's progress, i. e. it shall be essential for a candidate to submit thesis within seven years from the date of provisional registration, otherwise, the registration shall automatically be cancelled after due date. No more extension shall be provided in any circumstances after due date.

#### **6. PLACE OF Ph.D. WORK**

- (a) A candidate shall ordinarily be permitted to pursue his / her research at any one of the constituent or affiliated colleges / institutions of the University which has been recognized as the research center by the University.
  - (i) The colleges / Institutions affiliated to the University who runs AICTE recognized M. Tech./ M. Pharm. Programmes or are the Study Centers of the University for M. Tech./ M.Pharma. Programmes automatically qualify to be the Research Center for that area.
  - (ii) Any college / Institution affiliated to the University and not covered under the abovementioned section (a) (i) may be recognized as a Research Center in a particular area provided the Inspection Committee of the University recommends on the basis of adequate infrastructure, equipments and facilities available and the URC approves. Besides, RDC shall also prepare a database of affiliated colleges / institutions where all facilities related to the research are available, which shall be recognized by the University as the Research Centers.

- (b) A candidate may also be allowed to pursue his / her research at any other R & D Organization of repute or at any other University provided the RDC recommends and the URC approves. The RDC will prepare a database of such places where adequate research facilities are available and also of IITs and other national level institutions / organizations.

## 7. THESIS SUBMISSION

- (a) It is presumed that a candidate would endeavour to present quality work in the thesis leading to get published atleast in two journals of international repute. The RDC will give due consideration on this point before recommending for submission of thesis. The RDC shall also prepare a database of the journals of international repute of its areas which will be displayed on the website of the University.
- (b) A candidate shall have to deliver a pre Ph. D. seminar before submission of Ph. D. thesis in the RDC meeting. If the RDC recommends, the candidate shall be allowed to submit thesis. The presence of supervisor is essential in the pre Ph. D. seminar.
- (c) The medium of expression for the thesis shall be English language. The use of Hindi language as a medium of expression, if desirable, shall be permitted after the specific permission of the Vice-Chancellor.
- (d) The thesis shall comply with the following conditions:
  - (i) It must be a piece of research work characterized by the discovery of facts or by fresh approach towards interpretation of theories. In either case it should exhibit the candidate's capability for critical examination and sound judgment.
  - (ii) It should also be satisfactory as far as its literary presentation is concerned.
  - (iii) The thesis shall be typed on both sides following prescribed format and specifications given in the "Manual for preparation of Ph. D. Thesis" of the University and spirally bound to facilitate corrections, if any, suggested by the examiners. The candidate shall submit three typed copies but not published copies of his/her thesis along with a CD to the University and pay the prescribed examination fee.



The published matter related to the thesis may also be incorporated as a part of the thesis.

- (e) The thesis shall be accompanied with a certificate issued by the supervisor (s) stating:
  - (i) That the thesis embodies the original work of the candidate and it has not been earlier submitted for any Degree or Diploma.
  - (ii) That the candidate worked under him/they for the period prescribed by the RDC.
  - (iii) That he/she has put in not less than 200 days of attendance for full time at the designated place of work with one of the supervisor (s)
  - (iv) That the thesis fulfils the requirements of the clause 7(d) .

## **8. THESIS EXAMINATION**

- (a) Three months before the submission of the Ph.D thesis the supervisor shall inform to the Registrar of the University enclosing in triplicate the detailed summary giving an outline of the work done, results obtained and the relevant references.
- (b) The appointment of examiners shall be made in the following ways:
  - (i) The supervisor will prepare a panel of eight experts (4 each from India and abroad) qualified to examine the thesis. Similarly, the convener RDC will also prepare to a panel of 8 experts (4 each from India and abroad). Both panels will be sent to the Registrar of the University. Out of both panels of examiners, the Vice-Chancellor will appoint two examiners other than the supervisor, one from India and one from abroad to whom the thesis will be sent for evaluation. The proposed thesis examiners should be from reputed institutions and should actively be involved in research.
  - (ii) If the convener RDC is the supervisor the senior most member of the RDC shall act as the convener.
  - (iii) If the Vice- Chancellor is the supervisor the appointment of examiners shall be made by the Pro Vice-Chancellor. In his absence, the convener RDC will appoint.

- (iv) If both the Vice- Chancellor and the convener RDC are the supervisors, the Senior most member of RDC shall act as the convener and Pro-Vice-Chancellor will appoint the examiners. In absence of Pro- Vice Chancellor, the senior most member acting as the convener will appoint the examiners.
- (c) A copy of detailed summary shall be sent to both the external examiners for their consent. On receiving consent, thesis shall be sent to both the external examiners and one internal examiner (supervisor). Normally, two months time shall be given to the examiners for submitting the report. The maximum extension given to any examiner shall be two months, failing which the Vice - Chancellor may appoint alternate examiner(s).
- (d) The examiners shall specifically report on the prescribed proforma whether the thesis fulfils the requirements of the clause 7 (d ). They shall clearly recommend whether the thesis be:
  - (i) Approved as it is.
  - (ii) Approved after minor revision.
  - (iii) Be resubmitted after major revision with
    - (a) Major rewriting or
    - (b) Some extra work
  - (iv) (a) Do you agree to reevaluate the revised thesis..... (Yes / No)
    - (b) If reevaluation is not needed the candidate may be allowed to appear in the Viva-Voce examination with revised thesis .....(Yes/No)
  - (v) Rejected.
- (e) If one external examiner approves the thesis and the other external examiner recommends revision, the comments of the examiner recommending revision shall be sent to the supervisor and candidate without disclosing identity of the thesis examiner for the clarifications / comments.
- (f) (i) If the candidate is required to revise the thesis, the RDC may permit the candidate to revise his/her thesis and submit to the University in a period not earlier than six months and not later than one year form the date of communication to the candidate. The candidate shall have to pay an additional

examination fee as prescribed by the University for resubmission of his/her thesis.

- (ii) The revised thesis shall normally be examined by the old set of examiners provided they agree for reevaluation. If anyone examiner's report is not satisfactory or any examiner does not agree for reevaluation of the revised thesis, another examiner will be appointed by the clause 8(b) from the panels. The consent of the examiner shall be obtained by sending a copy of the detailed summary. A copy of each of the reports pertaining to examination of the thesis earlier submitted shall be sent to the examiners. The examiners shall clearly recommend whether the thesis is approved or rejected.
  - (iii) If both the examiners approve the thesis, the Viva-Voce examination will be conducted. If any one or both the examiners reject the thesis, the thesis shall be rejected finally.
- (g) In case the thesis is approved, an open Viva-Voce examination for the candidate shall be arranged. The Board for viva-voce shall comprise of:
- (i) One Indian examiner who approved the thesis (If the Indian examiner is not available the Vice-Chancellor may nominate another Indian examiner from the panel).
  - (ii) The supervisor (Internal Examiner).

The Viva-Voce Board shall make a final recommendation and a clear verdict whether the candidate be awarded Ph. D. degree or asked to re-appear for a Viva-Voce examination or the thesis be rejected. In case of second verdict, the candidate shall be required to re-appear for a Viva-Voce examination before the same Board but not earlier than six months from the date of Viva-Voce examination.

- (h) A candidate, after successful Viva-Voce examination shall submit four hard bound copies duly typed on both sides and including all the corrections proposed by the examiners to the university prior to issue of the provisional degree certificate. Out of the four copies, the first copy will be retained in the Library, the second copy will be sent to the institution of the candidate and the rest two to the supervisors.

**9. AWARD OF Ph.D. DEGREE**

- (a) The candidate shall be awarded Ph.D. degree provided the concerned RDC and the Academic Council considering the report of the Board of Viva-voce examination recommend and the Executive Council approves it. However, the candidate may be issued a Provisional Degree Certificate if the Academic Council recommends the candidate for the award of Ph.D. degree.
- (b) The award of Ph.D. degree can be withdrawn in case the thesis submitted by the candidate is found the duplication of an old work or pirated research work presented and the RDC and the Academic Council recommend withdrawal of the Ph.D. degree and the Executive Council approves it.

## Appendix -I

### Format for Research Proposal

1. Area / specialization of the research work.
2. Topic of Research work:
3. Introduction: Aims and objectives of research work (in about 200 words)
4. Methodology of the research work:
5. A brief review of the work: (National and International)
6. Schedule of activity; (Programme chart)
7. Impact of proposed research in academic / industry
8. Address of related website:
9. Major inputs: (infrastructure for research work)
10. Up to date references related to research work.
11. Proposed Chapter scheme:
12. Bibliography: (in standard format)
13. PERT chart for the progress of the work.

**Note:** The synopsis should not have more than fifty (50) pages and it must have signature of candidate, supervisors and Counter Signature of the Head of Institution / Organization (Place of Research Work).

Signature of the Candidate

Signature and name of Supervisor(s)

Counter Signature of the Head of Institution / Organization.

## Appendix -II

### Details of fee for the Ph. D. Programme

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|--|---|
| 1. Application Form                      | Free (To be down loaded from the university website.) |
| 2. Application processing fee            | Rs. 1000/-  |
| 3. Registration Fee                      | Rs. 5000/-  |
| 4. Annual fee                            | Rs. 5000/- Per subsequent years.                      |
| 5. Thesis Evaluation/<br>Examination fee | Rs. 10,000/-  |



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