

# **Dharmsinh Desai University , Nadiad**

## **Rules and Regulations for Doctor of Philosophy (PhD) Programme**

Based on the academic record and performance in the written test/interview, the guide will recommend the name of the candidate to the Institute for admission to the PhD programme. Candidates whose selection is approved by the Vice Chancellor will be admitted/registered to the programme. Application form, Detailed Admission Rules of Ph.D programme and Form for Guide Registration can be down loaded from site.

Eligibility for PhD admissions is as under.

### **(a) PhD in Engineering:**

Masters degree in Engineering/Technology in a discipline related to the research proposal with first class or minimum 60% marks (CGPA 6.5 out of 10) or equivalent from a recognized university. Bachelors Degree in Engineering/Technology with exceptionally good academic background in a discipline related to the research proposal will also considered for direct admission to PhD in Engineering provided if the candidate is having three years of experience as a full time teacher in a recognized engineering college/polytechnic or of R&D work in a related discipline in a professional organization and also to have outstanding and well recognized research work in the related discipline. However, such candidates need to complete minimum number of courses as prescribed by ordinances and regulations pertaining to research studies leading to Ph.D.

### **(b) PhD in Applied Science:**

Masters degree in Physical/Social Science related with the research proposal with first class or minimum 60% marks (CGPA 6.5 out of 10) or equivalent from a recognized university/Institute; or eligible for lecturers appointment as per UGC rule. Research proposal will also be considered for direct admission to PhD program from candidates having three years of experience as a full time teacher in a recognized college or of R&D work in a related discipline in a professional organization and also to have outstanding and well recognized research work in the related discipline.

**(c) PhD in Management:**

Postgraduate (full-time) degree or diploma in Management with first class or minimum 60% marks (CGPA 6.5 out of 10) or equivalent from a university/Institute recognized by UGC/AICTE. Research proposal will also be considered for direct admission to PhD program from candidates having three years of experience as a full time teacher in a recognized college or of R&D work in a related discipline in a professional organization and also to have outstanding and well recognized research work in the related discipline.

**Doctoral Programme**

**ORDINANCES & REGULATIONS PERTAINING TO THE RESEARCH STUDIES**

**LEADING TO THE DEGREE OF DOCTOR OF PHILOSOPHY (Ph.D.)**

w. e. f. August 2014

**ORDINANCES**

O.1 A candidate who has qualified for the award of a relevant Master's Degree as per UGC's nomenclature, of a recognized University or Institution in a discipline related to the research proposal is eligible to apply for Ph.D. Programme of this University. The University-Institution needs to have been recognized by AIU also.

O.2 A candidate who has qualified for the award of Bachelor's Degree in Engineering/Technology/Pharmacy with exceptionally good academic background and research work of repute in a discipline related to the research proposal is also eligible to apply for Ph.D. programme.

O.3 The award of the Ph.D degree shall be in accordance with the regulations of this University.

**REGULATIONS**

**1. Educational Qualifications**

- a. Ph.D. in Engineering / Pharmacy:

- i. Master's Degree in Engineering/Technology / Pharmacy in a discipline related to the research proposal with First Class or Minimum 60% marks (CGPA=6.5 out of 10) or equivalent from a recognized Institute/University.
  - ii. Candidates who have qualified for award of Bachelor's Degree in Engineering / Technology / Pharmacy with exceptionally good academic background in a discipline related with the research proposal will also be considered for direct admission to Ph.D. programme subject to the following conditions:
    1. He/She is required to possess at least three years experience either as a full time teacher in a recognized engineering college/polytechnic, or of R & D work in a related discipline in a professional organization, and also to have outstanding and well recognized research work in a related discipline.
    2. He/She is required to complete minimum of 6 (Including one course on Research Methodology-RM) courses and one seminar before registering as Ph.D scholar of the university. A course on research methodology (RM) is mandatory for registration as a PhD student.
- b. Ph.D. in Applied Sciences:
- i. (The term `Science' includes Physical Sciences & Social Sciences as well) Master's Degree in a Physical Science/Social Science related with the research proposal with First Class or Minimum 60% marks (CGPA=6.5 out of 10) or equivalent from a recognized Institute/University; or eligibility for lecturer's appointment as per UGC Rule. Research proposal will also be considered for direct admission to PhD program form candidates having three years of experience as a full time teacher in a recognized college or of R&D work in a related discipline in a

professional organization and also to have outstanding and well recognized research work in the related discipline.

c. Ph.D. in Management:

- i. Post Graduate two years full time UGC & AICTE recognized Degree i.e. M.B.A. or its equivalent AIU recognized Diploma in Business Management with First Class or Minimum 60% marks (CGPA=6.5 out of 10) or equivalent from an Institute recognized by AICTE/UGC & AIU. Research proposal will also be considered for direct admission to PhD program form candidates having three years of experience as a full time teacher in a recognized college or of R&D work in a related discipline in a professional organization and also to have outstanding and well recognized research work in the related discipline.

**2. Written Test and Interview:**

- a. The University shall admit the eligible doctoral students through an entrance test. It shall be followed by an interview to be organized by the University/respective department/ faculty level committees based on the recommendations from the research committee. At the time of interview, the doctoral candidates will be discussing their research interest area. The applicants qualified with a valid UGC/CSIR/JRF examination/SLET/GATE/Teacher Fellowship holder shall be exempted from the test. The minimum passing percentage shall be fixed by the research committee for each subject in entrance test paper/s for his/her further admission process. The research committee may seek the opinion of the paper setter/evaluator in this regard.
- b. The student seeking admission in Management area shall have to pass GMAT/GRE with minimum 70 percentile score during its last three years' exams as eligibility criteria, and no entrance test shall be conducted separately by the University for them. However such candidates need to appear for the interview.

### 3. Admission / Registration:

- a. Candidates qualifying in written test and interview shall be **admitted** to the Ph.D. Program.
- b. Candidate must complete minimum number of course works as prescribed by UGC to become eligible to register as Ph.D. student of the university. The Ph.D supervisor at his/her discretion may advise the candidate to complete more number of course works before registration. However each candidate must complete two course works (6+6 credits 150 marks each) and one seminar (50 Marks) to become eligible for registration.
- c. Candidate upon successful completion of course work shall be recommended by the supervisor for registration as Ph.D Student. The research progress committee will be formed for each candidate. The members of the committee will be identified by the university/internal research committee. The candidate needs to present his updated research proposal in consultation with the research supervisor before the RPC. Based on the evaluation report from the RPC university/internal research committee will recommend the candidate for registration as Ph.D student. Upon the recommendation of research committee after the payment of prescribed fees the candidate will be registered as the Ph.D student of the University by the registrar of the University.
- d. A candidate is not eligible for Re-Registration for Ph.D. after cancellation of his/her earlier registration for any reason.
- e. Entrance test for admission for Ph.D Program will be conducted twice a year during the months of June and November.
- f. The candidates may admit/register themselves subject to the fulfillment of admission criteria during the period specified below:
- g. First Term: Not later than 31st July; Second Term: Not later than 31st December

#### **4. Recognition of Ph.D. Guide :**

A Guide will be approved by the Vice-Chancellor after the recommendation made by the University Research Committee subject to the fulfillment of following criteria:

- a. He/She must have a Ph.D. degree from a recognized university or an equivalent institution with sufficient experience of PG teaching &/or independent research, and substantial research publications/projects to his/her credit in refereed journals i.e. not directly based on his/her Ph.D. thesis or included/incorporated therein; which can qualify him/her for guiding competently the research student, as a part of which he/she is required to have published at least three numbers of research papers in an international peer reviewed journal, after acquiring Ph.D. The citation index/impact factor of the concerned journals/publications have to be adequate.
- b. The eligibility for Co-Research Guide will be same as that for the Guide. Whenever there is a Co-Research Guide, communications pertaining to research progress, change of title, submission of the synopsis and thesis etc. shall be routed through the Guide. In case of non availability of the supervisor on permanent bases the University Research Committee may be approached by candidate for allotment of alternative Ph.D supervisor.
- c. A recognized research guide shall not have at any given point of time more than eight Ph.D. scholars.
- d. Ph.D. Guide List: (i) Engineering / Pharmacy Guide ; (ii) Management Guide

#### **5. Selection and Change of Guide:**

- a. Candidates qualifying in written test and interview shall approach a recognized research guide who is recognized in the area of interest of the student.
- b. Selection of guide is based on mutual agreement between the guide and research student. The research scholar must submit consent form duly signed by the research guide to the registrar in prescribed format. Registrar will formally

appoint the guide for each student after taking advice from the university research committee.

- c. A research scholar may be permitted to opt for a co-research guide with the concurrence of the main guide.
- d. Selection of guide is mandatory for the admission of candidate to the Ph.D. program.
- e. The University Research Committee may permit a research student to change his/her guide on valid reasons.

#### **6. Course-work:**

- a. After having been admitted, each Ph.D. student shall have to undertake course work of minimum two subjects for a minimum period of one semester. The course work shall be treated as prerequisite for the candidate to register as a Ph.D student . The Ph.D supervisor at his/her discretion may advise the candidate to complete more number of courses before registration. However, each candidate must complete two courses (6+6 credits, 150 marks each) and one seminar (50 Marks) for partial fulfillment to become eligible for registration. A course on research methodology is mandatory. The guide shall ensure the course work completion and shall also endorse it. Courses completed after the date of admission to the program will only count towards the requirements of registration .

#### **7. Work Plan & Research Progress Evaluation Report:**

- a. The student registered under a guide shall be monitored on continual basis through discussions, reports and presentations. The student shall have also to prepare Planning Report at the start of every semester to pursue the research in consultation with the guide and the same is to be produced along with the progress report of the bygone semester to the University. There shall be a Research Progress Committee comprising of at least three members including the guide to evaluate the progress of the candidate on continual basis.

- b. **Objectives of the RPC meeting:** The primary responsibility of the research progress committee is to conduct periodic review (Once in every six months in accordance with university academic calendar) of the progress made by the research scholar/PhD. Student. The members of the committee are expected to help the scholar to do quality research at the University by providing proper guidance in the form of relevant suggestions. This committee will submit its evaluation report to the registrar along with suggestions after each RPC meeting. If technical committee members (external expert and the supervisor) unanimously comes to a conclusion that the quality and quantity of the research work done by the scholar is sufficient, then the student will be allowed to submit his synopsis and thesis for review to the University. The presentation made by the Ph.D. student where he was allowed to submit the thesis is termed as pre-synopsis presentation. However, student must complete at least four RPC reviews after registration before his work is recommended for submission of the synopsis and the thesis. It means the recommendation for the submission of the thesis cannot be made during first four RPC meetings. It can be considered during fifth RPC or subsequent RPC meetings.
- c. The Composition, qualifications and responsibilities of each of the committee members shall be as per the guidelines given below.
- i. **Composition of the committee:** The committee consists of the University representative, the PhD. Supervisor and the co\_supervisor if exists and an external expert. During each RPC review meeting the presence of supervisor, external expert and the University representative is a must. The RPC review, and final thesis evaluation is conducted by the university and interference of any invited faculty members/students present therein will not be entertained unless they are appointed to be part of the evaluation process.
  - ii. **The external expert** will be identified from the list of experts suggested by the Ph.D. Supervisor within four months from the date of admission by the research scholar with DDU. The supervisor shall submit a panel of



three experts along with their detailed CV to the registrar who in turn will forward the same to the Internal Research Committee for selection purpose. In view of possible interdisciplinary research at DDU the selection of the external expert from among the suggested candidates will be identified by the **Internal Research Committee**. The same will be notified by the registrar of the university upon receiving the advice from the **Internal Research Committee**. All possible efforts are to be made to keep the members of the committee same to maintain continuity in evaluation. However, under unavoidable circumstances the external expert can be changed by following the same procedure as mentioned above after inviting three proposed names from the supervisor.

- iii. **The PhD supervisor** will be internal reviewer and will be signing all necessary documents related to review. The Co-supervisor need not sign any review documents when supervisor is present during RPC. However, in absence of supervisor within the country the co-supervisor can be empowered to act as an internal reviewer and will be signing all necessary documents. Replacement of the supervisor with the co-supervisor during any RPC review has to be intimated by the supervisor to the registrar at least 10 days before the commencement of the date of RPC review. It is responsibility of the supervisor to submit an updated thesis till date to the registrar and the external examiner at least seven days before commencement of the RPC review meeting.
- iv. **The University representative** will be chairman of the review meeting. The University representative will be appointed by the registrar on the advice of **University research committee** for each Ph.D. Student. The University representative can be appointed from existing Ph.D. Supervisors of the university who have guided at least two PhD Students successfully as supervisor (Both students having defended their thesis successfully). Guiding a student as co-supervisor shall not be considered as guiding a PhD student independently for this purpose.

- v. The role of the University representative is to oversee smooth functioning of RPC review. The University representative must ensure all rules and regulations with respect to RPC review are informed to the committee members at the beginning of every RPC review. The RPC evaluation report must be signed by the committee members after discussing among themselves. During this discussion only committee members are allowed to be present in the enclosure/room. The University representative must collect RPC evaluation report along with a report consisting of comments/suggestions made by the review committee during evaluation duly signed by all three members of the committee. At the end of evaluation process interested faculty members of the respective department/s may be allowed to make relevant comments/suggestions with respect to progress of the work. Such constructive suggestions can be incorporated in the evaluation report if the same is approved by both supervisor and the external expert.
- vi. The university representative being an observer shall not participate in any technical discussion during evaluation and shall not make any comment with respect to technical developments. The university representative must maintain strict neutrality. In case of any disagreement between supervisor and the external expert the same may be recorded in the suggestion report.
- vii. The Research Progress Committee meetings shall be held normally from 15<sup>th</sup> July to 16<sup>th</sup> August for the odd term; & from 15<sup>th</sup> December to 16<sup>th</sup> January for the even term of every academic year.
- viii. If a student fails to attend/to defend satisfactorily the respective semester-end RPC meeting/s, the respective nos. of semester/s shall not be counted for the minimum duration of Ph.D.. If a student fails to attend two numbers of RPCs consecutively, he/she shall have to reregister.
- ix. Upon attending a RPC meeting, the student has to apply in the prescribed form to pay term-fees latest by 31<sup>st</sup> August & 31<sup>st</sup> January for odd and even term respectively, failing which a late fee of Rs. 500/- shall be

payable additionally by the student. Such late payment of fees is permissible only for 15 days after the deadline.

#### **8. Cancellation of Registration:**

- a. The registration of a research student whose progress is not satisfactory in the opinion of the guide, or whose thesis is rejected by the external examiner/s or whose performance at the viva-voce exam is evaluated as not satisfactory by the external examiners or who has not enrolled in person for any one year shall be cancelled administratively by the registrar.
- b. The registration of a research student who has not submitted his/her thesis at least by the end of the extended period if any as provided in the regulations shall be cancelled administratively by the programmer office.

#### **9. Maximum Duration of the Programme:**

- a. A student can submit the research thesis at any time after the completion of the two years of research work from the date of registration but not later than five years from the date of registration. The University may extend a priori the period of submission of the thesis by not more than one year on valid reasons.
- b. In exceptional cases notwithstanding the above said regulation the vice chancellor may extend the duration on case to case basis on valid and justifiable grounds.

#### **10. Synopsis of Thesis:**

- a. A student has to submit through the guide the synopsis of his thesis, confirming along with the title of the thesis, upon recommendation of internal research committee. Synopsis shall be submitted at least two months before the last date for submission of the thesis.
- b. Every Ph.D. candidate shall publish at least one research paper in refereed/peer reviewed journal, or more as per the Guide's directive to his/her credit; before appearing for the pre synopsis seminar and produce the Guide's certification in the matter along with the reprint of the paper/s.. The student needs to be the lead author if the paper/s published jointly.

## **11. Submission of Thesis:**

- a. A student will submit through the guide initially two soft bounded copies of thesis embodying the results of investigations, and of abstract of the thesis of around four hundred words within six months after the recommendation of the university/internal research committee. Student shall submit his thesis within two months from the date of submission of the synopsis. However a request for grant of time beyond six months period, if the student appeals with valid reasons, well before the prescribed due date can be reviewed by the guide and be sent for its approval to the research progress committee. This exemption will not be applicable beyond the last date of submission of the thesis. The student has to pay the term fees for the term in which the thesis submitted. After the Ph.D. viva-voce, the student shall have to submit further two copies of the updated/revised/corrected thesis as directed by the examiners and the guide, within a week to the University.
- b. The thesis submitted for the Ph.D. degree shall contain (also in a form of the statement) an account of the research work carried out by the student leading to the discovery of new facts or techniques or new correlation of facts already known ( analytical and or experimental and or hardware oriented in nature), the work being of such quality that it makes a definite contribution to the advancement of knowledge. The student shall further forward a statement indicating the sources from which his information has been derived & the extent to which he has based his work on the work of others; and shall indicate which portion or portions of his/her thesis the student claims original.
- c. A student will not be permitted to submit as his thesis, a thesis for which a degree has been conferred on him in this or any other university, but a student shall not be precluded from incorporating the work which he has already submitted for a degree in this or in any other university, in a thesis covering a wider field, provided that he/she shall indicate in a written statement accompanying the thesis any work which has been so incorporated.
- d.

## **12. Panel of Examiners:**

- a. The guide will recommend for each student a panel comprising of the eight names of external examiners (four numbers of Indian – out of Gujarat, and four numbers of Foreign) out of which any two (one Indian and one foreign) names will be finalized by Vice Chancellor upon the advise of Internal Research Committee, for review of thesis. The copy of synopsis will first be sent to the chosen examiners for their consent to examine the thesis. Once they agree the submitted thesis will be sent to them. In case of non-acceptance by any of the selected examiners the alternative examiner will be selected from the remaining list of examiners. If the entire list exhausts fresh list of four members can be obtained from the Guide.

## **13. Thesis Evaluation Report:**

- a. The examiner is expected to send the report on the thesis within two months from the date of receipt of the thesis.
- b. In case of undue delay in receiving the thesis report, another examiner from the panel may be appointed in his place for evaluating the thesis.
- c. If an examiner suggests re-submission of a thesis, after revision, the student will re-submit the thesis within six months or at least two months after, as the case may be, failing which the revised thesis will not be accepted and his/her registration will be cancelled.
- d. Both the external examiners shall individually report to the Registrar regarding the evaluation report as to whether the thesis should be accepted or rejected or resubmitted in modified form and if their report is unanimous, it shall be treated as final. In the absence, however, of unanimity of opinion among the external examiners i.e. the case of rejection of the thesis by any one of them, the following procedure shall be adopted:
  - i. At the discretion of the guide the thesis will be sent either back to the student for correction. The student has to submit the corrected thesis within six months, failing which the revised thesis will not be accepted

and his/her registration will be cancelled. The thesis so revised will be sent to a third external examiner selected out of the panel of examiners.

- ii. If the guide feels no modification is necessary then he/she may recommend for the submission of thesis without any modification to the third external examiner of the panel of examiners.
- iii. In the event of rejection of thesis even by the third external examiner appointed as above the registration of the student shall stand cancelled.

#### **14. Oral/Viva-Voce Examination:**

- a. There shall be a viva-voce examination of the student after the acceptance of his/her thesis by the external examiners for the degree of Ph.D., on the date or dates to be decided by the external examiner, the guide and the university jointly. Additionally an observer nominated by the registrar upon the recommendation of the university research committee shall remain present at the viva-voce exam. The observer for PhD viva voce can be same as RPC observer or can be a new person on the discretion of university research committee. The viva-voce/defense process will be open to the departmental/interdisciplinary staff.
- b. The university observer shall submit joint evaluation report in prescribed format to the internal research committee through registrar clearly stating that the performance of the student at the viva-voce exam, is satisfactory or not. If the report is unanimous it shall be treated as final. In case of non satisfactory performance the university research committee may ask the student to re-appear for the oral examination after a period of not less than three months and not later than six months from the date of first viva-voce. This will be considered as a final viva-voce exam for the student.
- c. In the absence, however of unanimity of opinion among the guide and examiner, the following procedure shall be adopted:

- i. The student may be asked to reappear for oral examination after a period of not less than three months and not later than six months from the date of first viva-voce. The re-Viva voce will be conducted before panel of examiners at the discretion of the guide either before the same examiner or before the new board of the examiners by excluding the examiner who is not satisfied with the student's performance and by appointing a third external examiner out of the panel of examiners (from already submitted by the Guide),
- ii. On the second occasion if any one of the external examiner evaluates the performance of the student as not satisfactory, the registration of the student will be cancelled. The student shall not be declared eligible for the degree unless all the examiners at least on the second occasion unanimously declare him/her eligible for the degree.
- iii. The guide and examiner may also recommend the revision to be made in the thesis after taking into considerations the performance of the student at the oral examination/s. The guide shall forward the thesis to the Registrar certifying that the revisions recommended if any have been incorporated in the copy of thesis along with the report bearing the signature and comments of every examiner.

**15. Award of Ph.D. Degree:**

- a. If the performance of the student in the oral examination is reported satisfactory by all the examiners
  - i. He/she will be given provisional certificate by registrar of the university in prescribed format.
  - ii. He/she will be awarded Ph.D. Degree, with the due consent of the Academic Council.
  - iii. Upon the approval by the Academic council the registrar of the university will notify the award of the PhD degree to the candidate. However, the date of completion of the PhD degree by the candidate will be actual date

of Viva voce examination wherein candidate has successfully defended his/her thesis.

- iv. The University reserves the right to withdraw the conferment of PhD degree under exceptional circumstances. Decision of the Academic Council will be final in this regard.

**16. Power to Modify:**

- a. Notwithstanding all that has been stated, the Academic Council has the right to modify any of the above regulations and/or ordinances from time to time.