



Nurturing Knowledge. Empowering Minds.

Doctor of Philosophy (Ph. D.) (Examination and Miscellaneous Provisions) Ordinances, 2013

In exercise of the powers conferred by and in discharge of duties assigned under the relevant provision(s) of the Act and Statutes of the University, the Academic Council hereby makes the following Ordinances, namely;

PRELIMINARY

Short Title and Commencement

- (a) These Ordinances may be called The Doctor of Philosophy (Ph.D.) (Examinations and Miscellaneous Provisions) Ordinances, 2013.
- (b) They shall come into force from the Academic Session 2014-15.

PREAMBLE

IMS Unison University (IUU), Dehradun offers academic programs leading to the award of Ph.D. degree through its Departments/Schools. The award of Ph.D. degree is in recognition of high academic achievements, independent research and application of knowledge to the solution of technical and scientific problems in Science, Engineering & Technology, Architecture and Planning, Humanities & Social Science, Law, Pharmacy, Medical Sciences, Dental sciences, Mass Communication, Management etc; creative and productive inquiry is the basic concept underlying the research work.

The academic program leading to the Ph.D. degree is broad-based and involves a minimum course credit requirement and a research thesis. The University also encourages interdisciplinary areas through a system of Co-supervision and provides excellent opportunities for such programs. The University undertakes sponsored research and development projects from industrial and other organizations in the public as well as private sector.

The degree of Doctor of Philosophy shall be abbreviated as Ph.D. The Degree of Doctor of Philosophy is granted for research work in areas recognized by the Academic Departments of the University.

The research work shall be an original work characterized either by the discovery of facts, or by a fresh approach towards the interpretation and application of facts, or development of innovative products and technologies. It shall evince the candidate's capacity for critical examination and sound judgment and shall represent original contribution to the existing knowledge.

The degree of doctor of philosophy (Ph.D.) of the IMS Unison University (IUU), Dehradun shall be conferred on a candidate, who fulfils all the requirements specified in these Ordinances, on approval of the Board of Governors on the recommendations of the Academic Council through Board of Management.

These Ordinances shall be called Doctor of Philosophy (Ph. D.) Ordinances, 2013 and shall come in force from the academic session 2013-14.

1.0 DEFINITIONS

- (i) “DRC” shall mean the Departmental Research Committee.
- (ii) “Applicant” shall mean an individual who applies for admission to the Ph.D. program of IMS Unison University (IUU), Dehradun on a prescribed Application Form.
- (iii) “BOR” shall mean the Board of Research of IMS Unison University (IUU), Dehradun.
- (iv) “RDC” shall mean the Dean (Research & Consultancy) or a faculty nominated by the Vice Chancellor on this behalf.
- (v) “Research Scholar” shall mean a person registered for the Ph.D. program of IMS Unison University (IUU), Dehradun.
- (vi) “Supervisor(s)” shall mean member(s) of the academic staff of the University approved by Dean (Research & Consultancy) (RDC) on the recommendation of DRC to guide/supervise the research/academic work of the research scholar.
- (vii) “Caretaker Supervisor” shall mean a member of the academic staff appointed to look after the research interests of a research scholar in the absence of the Supervisor(s) and after the submission of the thesis, if necessary as per 14.0(A) [b] of the Rules.
- (viii) “Course Advisor” shall mean a faculty member appointed to advise a research scholar on the program of study and on the courses to be taken by him/her. If a supervisor(s) has already been appointed, he/she shall be the Course Advisor for that scholar. When supervisor is yet to be appointed, then Chairman, DRC shall be the Course Advisor.
- (ix) “Course Work” shall mean courses of study prescribed by the Department through the Course Advisor, to be undertaken by a research scholar registered for the Ph.D. Degree.
- (x) “Degree” shall mean the Degree of Doctor of Philosophy (Ph.D.) of the IMS Unison University (IUU), Dehradun.
- (xi) “Educational Institution” shall mean those Institutes, which offer Bachelor’s or higher Degree.
- (xii) “University” shall mean the IMS Unison University (IUU), Dehradun.
- (xiii) “Full-time Research Scholar” shall mean a person registered for the Ph.D. Degree devoting full time at the University for completing the degree requirements.
- (xiv) “Part time Research Scholar” is a person who is registered for the Ph.D. degree and has been allowed to devote part of his time towards this pursuit.
- (xv) “Minimum Registration Period” shall mean the minimum period for which a scholar must be registered prior to submission of the thesis.
- (xvi) “ODC” shall mean Oral Defence Committee.
- (xvii) “Residency” shall mean the minimum period for which a scholar must attend the University.
- (xviii) “SRC” shall mean Student Research Committee.

- (xix) “Sponsored Research scholar” shall mean a research scholar sponsored by an organization /his employer who provides full financial support for pursuing Ph. D.

NOTE: ‘HE’ & ‘HIS’ IMPLY ‘HE’/’SHE’ AND ‘HIS’/ ’HER’ RESPECTIVELY.

2.0 ADMISSION CATEGORIES

1. The applicant for admission to the Ph.D. program shall be classified under any one of the following categories, which will be decided and recommended by DRC.

2.1 Full-time Research Scholar

- a) Research scholar getting UGC fellowship.
- b) Research scholar including foreign nationals getting financial support from Govt. / Semi Govt. agencies (QIP, CSIR, UGC, DAE, DST, DBT, NBHM, JEST, ICCR, NDF, etc.)
- c) Research scholar selected as per UGC Regulation of 2009 and its subsequent amendments being provided a fellowship/assistantship by IUU.
- d) Research scholar including foreign nationals supported by a sponsoring organization, the applicant (Sponsored Research scholar) having TWO years experience out of which at least ONE year experience with the sponsoring agency.
- e) Self-Financed Research scholar
- i) **Indian:** - This category refers to persons with experience and with good track record to join the doctoral program. They will be admitted along with the regular scholar through the usual admission procedure.
- ii) **Foreign:-** Admission of Foreign nationals to Ph.D. program will be made as per policy and direction of the Govt. of India issued/notified from time to time
- iii) **Study Leave:** - This category refers to persons who are released from governmental or educational institutions on study leave for a period of not less than two years for pursuing Ph.D. program. They will be admitted along with the regular research scholar through the usual admission procedure.
- f) Research scholar regularly working full time in an R & D project at University and His Ph.D. topic is in confirmation to the project as certified by the SRC/DRC.

2.2 Part-time Research Scholar:

- a) Research scholar working as a regular employee in the University
- b) Research scholar working regularly full-time in an R&D project in the University. The project must have tenure of at least next 2 years.
- c) Research scholar working in other organizations / institutes, approved by IUU as Research Centre or having MoU for research purposes.

* The research scholar working in a project will be given full time status, provided his research for Ph.D. is related to the project as certified by the SRC/DRC. However, part time research scholar may be given full time status when the project tenure is completed.

3.0 ADMISSION ELIGIBILITY

1. An applicant belonging to the above admission categories in mentioned in clause 2(1) should possess the following qualifications in appropriate areas to be eligible to apply for admission for the Ph.D. program of the University.

“Master Degree from a recognized University/Institute in the relevant discipline with minimum 55% marks or equivalent grade”.

OR

Bachelor Degree in Engineering/Technology in the relevant field subject to condition that he has secured at least 75% marks or equivalent grade in his Bachelor's Degree and a minimum experience of 5 years in relevant industries/research organization/academic institution.

Provided further that essential qualifications prescribed above for different disciplines, may be amended by the Academic Council on the basis of guidelines of the UGC/ other Regulatory Bodies, issued from time to time.

2. **Eligibility for Part-time Ph.D.**
 - a) The applicant possesses the minimum entry qualifications for the degree as given in clause 3(1);
 - b) The applicant proves that his official duties permit him to devote sufficient time to research;
 - c) He will be required to reside at the University for a period of not less than 6 month during his registration for the degree. However, in case of applicants with Bachelor's Degree in engineering/technology, the minimum residency period shall be 12 months, provided further that the above mentioned residency period has to be fulfilled within 24 months from the date of registration. (This condition of minimum residence period will be automatically waived for candidates who are working in Dehradun).
 - d) The facility of part time registration will also be available to all faculty/employees of the University or candidates working in organizations having MoU with the University or organizations approved by the University as Research Centre. However, such applicants shall be subjected to University entrance test, wherever applicable.
 - e) The applicants must have been in continuous service with the sponsoring organization for at least two years at the time of submitting the application form for admission.
3. Employee seeking admission to the Ph.D. program with minimum of two years service in an organization must submit 'No Objection Certificate' from the employer to the effect that the duties allotted by the employer will allow the required time for this pursuit.

4.0 RESERVATION

40% (Forty percent) of seats shall be reserved for domicile of the State of Uttarakhand.

5.0 SHORT LISTING

1. The short listing of applications for the purpose of admission shall be on the basis of test conducted by the University on all India basis and personal interview.
2. The University shall fix the short-listing criteria, if considered necessary, higher than the minimum eligibility criteria defined in clause 3(1).
3. The basic guidelines/instructions for short listing will be issued by the Dean, Research & Consultancy or the faculty authorized by the Vice Chancellor.

6.0 REGISTRATION, APPOINTMENT OF SUPERVISOR AND SRC

1. Fresh research scholars admitted to the Ph.D. program are required to join the University and report to the Head of the Department one day in advance before the scheduled date of registration.
2. The admission to Ph.D. programs at any time during the session is allowed to give opportunity to JRF qualified candidates (UGC/CSIR). Such admissions shall be approved by the Vice Chancellor on the recommendations of DRC and RDC.
3. The research supervisor(s) of a student admitted to a department may be recommended by the DRC as per preference given in writing by the scholar before the date of registration, subject to approval of Dean (Research & Consultancy) or faculty authorized by the Vice Chancellor. The Departmental Research Committee (DRC) shall consist of:

a) Dean/Head of the School	Chairman
b) One senior faculty of the School/Department	Member
c) One University faculty expert from outside the department	Member
d) Supervisor(s) (in case matter relates to specific scholar(s))	Member(s)
e) Co-opted faculty, if any	Member
4. The Student Research Committee (SRC) for a research scholar shall be appointed within a week but not later than a month from the date of initial registration by HOD, with approval of the Dean, Research & Consultancy.

The SRC shall consist of:

a) Head of the department	Chairman
b) One expert in the field from the department,	Member
c) One University faculty expert, preferably in the concerned area, from outside the department, to which the student belongs to	Member
d) Supervisor (s)	Member(s)

Note: Names under 6.4(b) and 6.4(c) above shall be proposed by the supervisor(s).
5. Every research scholar will be required to carry out registration during stipulated dates and register for the Ph.D. Degree program every semester till the submission of the thesis irrespective of his or her category and status.

7.0 FINANCIAL ASSISTANCE (University Fellowship)

- 1.a) Those students who are admitted on full-time basis are considered for the award of University Fellowship of the amount as decided by the Board of Governors from time to time, under specified terms and conditions.
- b) The students getting University Fellowship will provide 8-10 hours of assistance per week in teaching, laboratory development, and research.
- c) The total number of University Fellowship available in a School at any particular time will be decided by the University from time to time.
2. The maximum duration for which fellowship can be awarded to any Ph.D. research scholar is 3 years or till the end of the semester in which the thesis is submitted, whichever is earlier. Further, continuation of the fellowship is contingent on satisfactory academic and research performance and satisfactory performance in the discharge of responsibilities for assistance assigned under the scheme.

It is to be noted that admission to the Programs and award of fellowship are not linked. Admission to any program does not guarantee the award of fellowship. Those who are not awarded fellowship can continue with the programs as a self-financing scholar.

8.0 TUITION FEE WAIVER TO Ph.D. STUDENTS

The internal faculty of the University registered for a Ph. D. program through proper admission procedure may be waived off tuition fee for a specific period as decided by the University.

However, such a faculty shall be required to furnish a Bond to serve University for such a period and terms and conditions as may be decided by the University at the time of admitting him/her to the Ph D program.

9.0 LEAVE AND ATTENDANCE

1. A research scholar will be entitled to avail leave as recommended by the Head of the Department following Leave Rules/Attendance Rules formulated and amended from time to time by the University.

2. Attendance

A research scholar irrespective of the source of support including self-financing, while pursuing course work must have at least 75% attendance in each course in which he/she is registered. A research scholar falling short of 75% attendance in a course shall not be permitted to appear in the examination of that course.

A research scholar after having completed the course work must attend to his/her research work on all the working days and mark attendance except when he/she is away from the campus on duty/sanctioned leave. The requirement of 75% attendance will apply as above on daily attendance on monthly basis except in the cases where longer leave have been duly sanctioned within the leave entitlement of the research scholar.

In case the attendance of a research scholar falls below 75% during a month, he/she will not be paid his fellowship, if applicable, for that month. Further, if his/her attendance

again falls short of 75% in any subsequent months in the same semester his/her scholarship and support will be terminated.

10.0 WITHDRAWAL FROM SEMESTER/COURSES

1. A research scholar may be permitted by the Dean, Research & Consultancy to withdraw from all the courses registered by her/him in the entire semester, on medical grounds supported by a medical certificate from the University Medical Officer. The medical certificate issued by a registered Medical Practitioner will also be acceptable in those cases where the research scholar has valid reasons for his absence from the University. Withdrawal may also be granted by the Dean, Research & Consultancy provided he/she is convinced that the research scholar cannot pursue his/her studies for the reasons beyond his/her control subject to clearance of all "Dues" of the University.
2. Research scholar should present the medical certificate in support of his absence on health reasons within two days of his rejoining the University, if not produced earlier.
3. The period of authorized absence in the semester should not be less than three weeks in a Semester, for which withdrawal is to be granted. Regularity in attending the classes / department and satisfactory performance in research/ the mid-term examinations, if any, held prior to the date of application for withdrawal are the factors which would be taken into account while recommending/granting withdrawal.
4. Any semester withdrawal will count towards the maximum limit of registration for six years for full time /eight years for Part time research scholar as per clause 13(i) & 13(ii).

11.0 CANCELLATION OF REGISTRATION

1. Registration of a Research scholar shall be cancelled in any one of the following eventualities, after due approval of Dean (Research & Consultancy).
 - a) If he/she absents himself for a continuous period of four weeks without prior intimation/sanction of leave.
 - b) If he/she resigns from the Ph.D. Program and the resignation is duly recommended by the supervisor/ Chairman, DRC/HoD.
 - c) If he/she fails to renew his/her registration in any semester following the provision contained in clause 6.5 above.
 - d) If his/ her academic and research progress is not as per requirement under clause 18.0.
 - e) If all the prescribed courses including Audit course(s) are not successfully completed within the stipulated time frame of 20/24 months for full time/part time Research student respectively from initial registration following provisions of clause 15.0
 - f) If he/she does not clear the comprehensive examination as stipulated in clause 17.3 and 18.2.

- g) If he/she is found involved in an act of misconduct and/or indiscipline and termination has been recommended by a competent authority.

12.0 TO TAKE UP JOBS/ASSIGNMENTS

The Full time research scholars cannot take up any job/assignment during Ph.D. program. If he takes up a job / assignment, his status will be converted from Full time to Part- time student in accordance with clause 3.3

13.0 MINIMUM AND MAXIMUM TIME FOR THESIS SUBMISSION

- i) A full time research scholar, who has a post graduate degree or its equivalent and have cleared the required number of courses specified by the SRC/DRC, shall be allowed to submit thesis after 24 months from the date of initial registration subject to submission of proof of publication / acceptance of at least two papers in the refereed journals of repute in the area of research and have successfully cleared pre submission seminar before an appointed committee.

However, the minimum period of submission of thesis for part time research scholars or those having B Tech/M Sc/ M A degree or its equivalent and fulfilling the conditions laid down in preceding paragraph shall be not less than three years from the date of initial registration.

- ii) The candidates of all categories shall be required to submit their thesis within a maximum period of Five / Seven years from the date of their initial registration for the full time program/ Part time program respectively. However, as a special case, this limit may be extended on the recommendation of SRC to a maximum of six years for Full time research scholars and eight years for Part time research scholars by the Dean (Research & Consultancy) (RDC) after which the registration shall stand cancelled automatically.

14.0 SUPERVISOR(s)

1. Supervisor(s) can be any full-time faculty member of the University with a Ph.D. degree. Regular/full time faculty members, who do not have Ph.D. degree, may be allowed to supervise a research scholar provided such faculty members have been engaged in research for at least for five years as evidenced by publications in refereed/reputed journals. No person, who himself is registered for Ph.D. degree at this University or any other Institution, would qualify to act as a supervisor. Those without a Ph.D. degree, if appointed Supervisor(s), would cease to be Supervisor(s) if they themselves register for Ph.D. Faculty on contract is not allowed to supervise research scholar singly.
2. The Dean, Research & Consultancy, on the recommendations of the SRC, may appoint one or more Supervisor(s) not exceeding a total of three to supervise the research scholar. These may be from inside or outside the University. Addition/deletion of Supervisor(s) subject to prescribed limit of Supervisor(s), if any, may be made on the recommendation and approval by RDC. In such cases, the minimum association period of new supervisor shall not be less than one and a half year.

3. Change of Supervisor(s) and Appointment of Caretaker Supervisor for Ph.D. research scholars. A faculty member appointed as a Ph.D. Supervisor(s) is expected to be available to a research scholar in the University till the thesis is submitted. However, under unavoidable circumstances, such as: long leave of more than 12 months, resignation, retirement, death or withdrawal by the supervisor, a new Supervisor(s) may be appointed following ordinances as under:

A. Supervisor(s) proceeding on long leave of more than 12 months

- a) (i) Where there are more than one Supervisor for a research scholar, if one of the supervisors proceeding on long leave for more than 12 months, other alone may continue to be a Supervisor.
- (ii) Where only one Supervisor exists for a research scholar, another supervisor may be appointed by the SRC/DRC in cases where SRC has not yet found the research work fit for submission following clause 20.1(c) in the area of his research work.
- b) (i) If SRC has recommended the research work for submission following clause 20 sub clause 1c) before the supervisor proceeds on leave, only a caretaker supervisor will be appointed.
- (ii) If the thesis has been submitted before the supervisor proceeds on leave, only a caretaker supervisor will be appointed.
- (iii) Further, if a major revision becomes necessary, and the supervisor(s) is (are) on leave, he should be asked to specifically state whether he would effectively help the Research Scholar in carrying out the major revisions within a reasonable period. In case the supervisor(s) expresses his inability due to one reason or the other, the caretaker supervisor, if he/she provides the required help in carrying out the major revision, will automatically be treated as a supervisor of that candidate.
- c) If a supervisor(s) proceeds on leave for a period less than 12 months initially, but later extends his leave beyond 12 months, the above procedure as applicable for leave beyond 12 months, will be followed. The extension granting authority will inform the Dean, Research & Consultancy accordingly.
- d) If the supervisor(s) proceeds on leave for more than 24 months during the Ph.D. registration of a research scholar and in the opinion of SRC/DRC, he has not already contributed significantly to the thesis, he/she will cease to be the supervisor(s).

B. A Supervisor retiring

A faculty member, who is due to retire within the next two years, may be appointed as an additional supervisor(s) and may continue to be the supervisor(s) even after his retirement provided the SRC is convinced of his availability/continued guidance to the research scholar. In other cases, a faculty member on retirement may continue as a supervisor(s), if re-employed or appointed Emeritus Fellow; or, if SRC has recommended the research work for submission following clause 20 sub-clause 1c). Appointment of another

supervisor(s) / caretaker supervisor may be done in similar circumstances as in “A” above.

C. A Supervisor(s) resigning

A new supervisor(s) will be appointed. However, the person who has resigned, if he joins an organization, which is a recognized research center/organization by the University and such a person agrees to continue to supervise and contribute in the research of the scholar, may continue to be a supervisor subject to limit prescribed { 14.0(2) }

D. Death of Supervisor(s)

A new supervisor(s) will be appointed, if necessary on the recommendation of SRC.

E. Supervisor(s) declining to supervise

In case a Supervisor(s) declines to supervise a research scholar, another faculty member qualified to be Supervisor(s) and actively engaged in the same area of research, consents to supervise the research scholar, new Supervisor(s) may be appointed by the department as per the choice of the Scholar on the recommendation of the remaining members of SRC. After that, SRC may be reconstituted consisting of new Supervisor(s) and keeping the same internal and external experts.

F. Change/drop of Supervisor(s) by the research scholar

If a research scholar wants to drop one of the supervisors, or wants to change the Supervisor(s), a new Supervisor(s) may be appointed by the Dean (Academic Research) only on the recommendation of DRC. In case, research scholar wishes to change the area of research with new supervisor, a fresh SRC shall be constituted.

The maximum number of Scholars supervised by a faculty member at any time at the University shall not be more than 8 jointly or 5 singly or a combination of both, the aggregate not exceeding eight (including internal/outside scholars) as per table given below:

	Students under supervision	
	Singly	Jointly
a)	5	0
b)	4	2
c)	3	4
d)	2	6
e)	1	7
f)	0	8

However, this may be modified any time by the Academic Council on the recommendations of Board of Research.

Joint supervision of a Ph.D. scholar will be treated as 0.5 per faculty member.

15.0 SUPERVISION OF Ph.D. STUDENTS OF OTHER INSTITUTES / UNIVERSITIES

A faculty member of University may supervise and guide Ph.D. students of other institutes/universities subject to following conditions:

- a) The host Institution/University is recognized by MHRD-UGC/AICTE.
- b) The request must be forwarded by the competent authority of the host institution.
- c) The concerned faculty should have guided/guiding at least one Ph.D. student registered at IMS Unison University.
- d) The total number of such externally enrolled Ph.D. students under any faculty of University, should not be more than 2 (two) at any point of time.
- e) Due to extension of this facility to the host institution, the work of the University should not suffer.
- f) If the concerned faculty of University, as supervisor of thesis of students of another institute/university is required to visit outside, he/she shall seek specific approval for the visit on Casual Leave/leave as due, by the competent authority and shall not be on duty for the visit. Further, the expenses, facilities etc. in this regard shall not be borne by the University.

16.0 COURSE CREDIT REQUIREMENTS

1. Each research scholar will satisfy the credit requirements as given in Table-1 by crediting courses as advised by course supervisor and approved by SRC. Research scholar earns credits for a course only if he/she obtains a minimum of B Grade for successfully completing the course. However, if any subject-class is having more than 80% research scholars, absolute grading be carried out.
2. SRC may recommend additional course(s) as Audit course(s), if required, in a particular case. A research scholar is deemed to have fulfilled the requirement of additional course(s) as Audit Course(s) if he/she obtains 'Audit Pass' for successfully completing each of such course(s).
3. The courses offered for the Ph.D. programs may be Lecture Courses, Laboratory Courses, Design Courses, Self-Study Courses, Mini Project, and Seminars.
Provided further that each research scholar have to undertake "Research Methodology" as one of the subjects compulsorily.
 - A. Self-study Courses shall satisfy the following conditions:
 - a) A self-study course should be preferably outside the courses listed in the Courses of Study and offered to a research scholar following sub-clause d) below.
 - b) A course listed in Courses of Study but not offered in a semester due to lack of sufficient number of students registering for it, may be offered as a self-study course in that semester with the prior approval of Dean (Research & Consultancy).
 - c) A course already running in a semester shall not be offered as a self-study course.
 - d) The SRC shall examine proposals for self-study courses, not listed in the course of study, along with the course contents, textbooks, mode of

assessment and name(s) of the instructor(s) and shall recommend the proposal and the credit to be assigned to Dean (Research & Consultancy) for his approval.

- e) All self-study courses shall carry a maximum of four credits.
- f) A student shall not take more than one self-study course during the entire Ph.D. program.

B. Seminars shall satisfy the following conditions:

- a) Seminar in a semester shall carry a maximum of two credits and every research scholar must deliver at least one seminar as a part of course requirement and may be within or beyond the minimum limit of credits for course requirement.
- b) Seminar shall be treated as a course for the purpose of registration and evaluation.
- c) Seminar coordinators shall be appointed by the DRC. They shall arrange the seminars and forward the grades awarded by the panels of examiners to the Dean (Research & Consultancy) by the end of the semester.
- d) A research scholar shall not get credits for more than one Seminar during the entire Ph.D. program.

Table 1 : Course Credit Requirement

S.No.	Candidate having	Range of Credit Requirements	Remarks
1.	M.Tech or M.Tech. (Integrated/ Dual Degree) or MCA or LL.M. or Equivalent Degree	8-12 credits - Should earn at least 2 credits by delivering seminar	Course from the existing M.Tech and/or pre-Ph.D. courses offered by own Dept. / other Depts.
2.	M.Sc / M.A. / M.B.A. / Master in Mass Communication / Master of Journalism / Master of Journalism & Mass Communication or Equivalent Degree for candidates admitted to Science / HSS / Management / Mass Communication etc.	12-16 credits - Should earn at least 2 credits by delivering seminar	Courses from the existing PG level and/or pre-Ph.D. courses offered by own Dept./ other Depts.
3.	B Tech or Equivalent or M. Sc. or Equivalent admitted to Engineering Disciplines.	16-20 credits - Should earn at least 2 Credits by delivering seminar	Courses from the existing PG level and/or pre-Ph.D. courses offered by own Dept./ other Depts

17.0 COMPREHENSIVE EXAMINATION

1. Soon after successfully completing the pre-Ph.D. course requirements, each research scholar will request for and appear in a comprehensive examination which has three segments (i) written comprehensive examination and (ii) oral comprehensive examination to test comprehension of the research scholar in the broad area of study, and (iii) submission of research plan and its oral presentation to SRC, which will examine his/her academic preparation and potential to carry out the proposed research plan. Comprehensive examination shall be conducted by the SRC of the research scholar appointed under clause 6.0 sub-clause 4, within the stipulated time frame of 20/24 months for Full Time/Part Time.
2. On the basis of the performance of Scholar in the comprehensive examination, SRC will make one of the following recommendations under each a), b) and c), to the Dean (Research & Consultancy):
 - a) *Written comprehensive examination*
 - (i) Passed
 - (ii) To re-appear in the written comprehensive examination after a certain period of time specified by the SRC and after taking additional courses recommended by it, if any.
 - (iii) Failed
 - b) *Oral comprehensive examination*
 - (i) Passed
 - (ii) to re-appear in the oral comprehensive examination after a certain period of time specified by the SRC and after taking additional courses, if recommended by it.
 - (iii) Failed
 - c) *Research plan and its oral presentation*
 - (i) approved
 - (ii) not approved
3. **A research scholar will be provided a maximum of two attempts to qualify in each segment of the comprehensive examination for obtaining the SRC recommendation of a)(i), b)(i) and c)(i).**
4. **The research scholar is required to obtain a minimum of 60% marks both in written and oral comprehensive examinations.**

18.0 ELIGIBILITY FOR THE THESIS WORK

1. The Dean, Research & Consultancy will approve the registered Research Scholar to work on the thesis on the recommendation of SRC, which will satisfy that a research scholar has fulfilled the following:
 - a) completed the required course work;

- b) passed the written and oral comprehensive examination, and
 - c) have submitted a research plan and defended it to the satisfaction of SRC.
2. If a scholar fails to fulfill the criteria laid down in clause 18.1 above within the stipulated period of 20 months for Full Time and 24 months for Part Time, his/her registration for Ph. D. program will be terminated.

19.0 RESEARCH PERFORMANCE MONITORING

1. The progress of each research scholar in a semester will be monitored by the supervisor(s), who will assess the performance to be 'satisfactory' or 'unsatisfactory' at the end of each semester. For this purpose, each research scholar will be asked to submit a progress report to the supervisor(s) by the dates stipulated in clause 12.6.
2. The supervisor(s) shall forward his/her recommendation regarding the performance of the research scholar to the Chairman, DRC in the Department before the beginning of the next semester. The Chairman, DRC will forward the recommendation to the Dean (Research & Consultancy) for necessary action.
3. If the progress of a research scholar in a semester is evaluated as 'satisfactory' by the supervisor, 'S' grade will be awarded to the research scholar for that semester.
4. If the progress is evaluated as 'unsatisfactory' by the supervisor(s), the evaluation will then be submitted to SRC, which will make suitable recommendation to the Chairman, DRC for the award of 'U' grade (unsatisfactory performance) and other appropriate actions for forwarding it to the Dean, Research & Consultancy. For the first award of 'U' grade, a warning will be issued to the Research Scholar by the office of Dean, Research & Consultancy.
5. If there are 'U' grades, awarded in two consecutive semesters to a research scholar, his/her registration for Ph.D. program will stand terminated.
6. The academic calendar will include the following dates for the submission of the progress reports by the research scholar such as:

Monsoon Semester (Odd Semester):

1st November (Receiving of blank progress forms from the office of the Dean (Research & Consultancy) / Department)

15th December (submission of progress report by the research scholar to the supervisor)

Winter Semester (Even Semester):

1st May (Receiving of blank progress forms from the office of the Dean (Research & Consultancy) / Department)

15th June (submission of progress report by the research scholar to the supervisor)

20.0 THESIS SUBMISSION

- 1(a) The research scholar is required to publish

- i) at least **two** papers or get accepted for publication in refereed journal of repute (preferably journals included in SCI/SCOPUS) or equivalent. In case, the journal is not indexed in SCI/SCOPUS or equivalent, the DRC should certify that the journal(s) in which the papers have been published or accepted for publication, are of high repute.
 - ii) cases not falling under clause 20(1)(a)(i), the Board of Research (BOR) will be empowered to permit submission of thesis on the recommendations of SRC & DRC, on a case-to-case basis.
- b) When the supervisor is of the opinion that the research work as planned in the research proposal has been completed and the quality of work is up to the mark for submission of Ph.D., he/she will ask the research scholar to prepare a synopsis of the work and submit (8) eight hard copies and one soft copy of the synopsis to the Chairman, SRC with the request to convene the meeting of SRC.
 - c) The research scholar will deliver a seminar on his research work. The seminar shall be adequately notified by the Chairman, SRC, so as to enable interested staff members and students to attend it. If the SRC is satisfied about the quality of the work and considers it fit for submission as a Ph.D. thesis, it will send its recommendations to the Dean (Research & Consultancy) along with (5) five hard copies and one soft copy of the synopsis and the proposed panel of examiners.
 - d) The research scholar shall be required to submit fresh synopsis, if he/she fails to submit his thesis within 4 months of SRC recommendations for submission of thesis. However, in case, a research scholar fails to submit his thesis within the above stipulated time and has suitable justification for the same, the Dean, Research & Consultancy may, on recommendations made by the SRC and on individual merits of each case, grant him extension of time not more than four more months, i.e. the research scholar may be allowed to submit his thesis within a period normally not exceeding (8) eight months from the date of SRC meeting recommending submission.

2. **Panel of Examiners**

- a) A panel of at least (12) twelve experts in the area of the Ph.D. thesis would be suggested by the supervisor(s) and recommended by the SRC while forwarding its recommendation for submission of thesis. The panel so recommended would include at least (6) six of the examiners from outside India and out of the bibliography list of references as submitted by the candidate with synopsis. Any person working in the laboratory(ies)/Institution(s) where the research candidate or supervisor(s) from outside the institution, if any, is employed, cannot appear in the panel of examiners. Any person related to the research scholar or supervisor(s) should also not appear in the panel of examiners.
- b) The Board of Research on the recommendation of DRC may recommend appointment of examiners only from within the country in such subjects where it may not be possible to find suitable examiners from abroad.

3. **Board of Examiners**

On receipt of the recommendation of SRC for submission of thesis along with synopsis and panel of examiners, the Dean, Research & Consultancy will forward the thesis along with panel of examiners to the Controller of Examinations to seek consent of the

examiners with due approval of the Vice Chancellor and appoint the “Board of Examiners” for each research scholar. The Board shall consist of one Foreign Examiner, one Indian External Examiner and the third Examiner, either from within the country or from abroad except in cases falling under clause 20.2 (b).

4. **Submission of thesis**

- (i) The thesis shall be written in English in the specific format available in the office of Dean (Research & Consultancy) / Department) unless the Board of Research (BOR) has approved otherwise.
- (ii) The thesis shall contain a critical account of the scholar’s research. It should be characterized by discovery of facts or fresh approach towards interpretation of facts and theories or significant contribution to knowledge or development of innovative products and technologies or a combination of these. It should bear evidence of the research scholar’s capacity for analysis and judgment as well as his ability to carry out independent investigation, design, or development.
- (iii) The Ph.D. thesis must contain the following copyright certificate in the beginning of the thesis, on a separate page on the left side:

© IMS UNISON UNIVERSITY, DEHRADUN, 20....

ALL RIGHTS RESERVED

The research scholar shall submit n+3 copies of the thesis with a soft cover, where ‘n’ is the number of supervisor(s), and also a soft copy (.pdf file) on a CD.

21.0 THESIS EVALUATION

1. The Dean (Research & Consultancy) shall forward thesis along with panel of examiners to the Controller of Examinations for taking necessary action for evaluation of thesis by the examiners appointed by the Vice Chancellor.
2. The thesis will be sent to the examiners by the office of the Controller of Examinations with the request for a detailed assessment report and his/her recommendations on the prescribed proforma within six to eight weeks of the date of receiving the thesis.
3. If report of any of the examiners is not received within above period, the Controller of Examinations shall rigorously follow up with the examiner concerned to get report. However, if no response/report is received within three months from the date of dispatch of thesis, the Controller of Examinations shall initiate process to get another examiner appointed to expedite evaluation.
4. a) Examiners will examine the thesis individually with a view to judge that the thesis is a piece of research work characterized by;
 - i) The discovery of facts, or
 - ii) A fresh approach towards interpretation and application of facts or theories, or
 - iii) Development of innovative products and technologies

b) Each examiner will send detailed comments on the research work along with a clear recommendation stating one of the following:

A) The thesis is recommended for the award of Ph.D.,

or

B) The thesis is recommended for the award of Ph.D. Degree subject to the candidate giving satisfactory answers to queries specifically mentioned in the report at the time of oral defence, or

C) The research scholar may be asked to resubmit thesis in the revised form,

or

D) The thesis is rejected.

5. The Controller of Examinations, based on the recommendations of the examiners will take one of the following actions:

i) If all the examiners recommend acceptance of the thesis, their recommendations shall be accepted.

ii) If majority of the examiners recommend rejection, their decisions would be accepted. The research scholar may, however, be allowed to resubmit the thesis at least after one year, provided the title of the thesis remains unchanged. Normal procedure will be followed for the evaluation of the re-submitted thesis. In case of re-submission of thesis, the research scholar shall pay a fresh fee for the examination. No research scholar shall be allowed to re-submit the same thesis more than once.

iii) If any of the examiners recommends rejection, the replies on the comments made by the examiner shall be sent to the concerned examiner for a clear verdict. The examiner may then recommend acceptance, rejection, or revision of the thesis. In case the thesis is accepted, sub-clause 5 (i) above will be applicable. In case of recommendation for further revision, sub-clause 5 (iv) below will apply. However, in case of rejection once again, the thesis shall be referred to another examiner after due approval of the Vice Chancellor, for independent review and evaluation. If newly appointed examiner also rejects the thesis, the thesis shall be rejected.

iv) In case some examiners recommend revision of the thesis, the thesis would be revised normally within one year. The revised version of the thesis would be sent to all the examiners for their recommendations.

v) If the majority of examiners recommend revision of the thesis, the research scholar may revise the thesis accordingly and re-submit it within a period of one year for the evaluation by the same set of examiners.

vi) If there is no clear majority opinion and there are recommendations for rejection by some and also, revision of the thesis by some others, the research scholar may revise the thesis and re-submit it within a period of one year, for evaluation by the same set of examiners.

- vii) Any doubt arising out of following the procedure laid down above shall be referred to the Vice Chancellor for a decision.
- viii) In case of ambiguous recommendations by the examiners, the Controller of Examinations will approach the examiners for a clear recommendation. In case clear recommendation is not forthcoming, the matter may be referred to the Vice Chancellor for his decision.
- ix) In case any examiner gives comments to be incorporated in the thesis and also states that the revised thesis need not be sent again to him / her, the revised thesis will not be sent to the examiner. The supervisor(s) shall certify that the comments have been incorporated, before the viva-voce examination.

22.0 ORAL DEFENCE (VIVA-VOCE) ON THESIS

1. If the thesis is recommended for the award of degree, the research scholar shall be required to defend his / her work / thesis orally (viva-voce examination) before a duly constituted committee hereinafter referred to as the Oral Defence Committee (ODC). The Controller of Examinations shall request the thesis supervisor and Chairman, SRC to arrange the conduct of oral thesis defence. The copies of the report of the thesis examiners shall be sent to the supervisor with the request to provide them to the research scholar so that he/she may prepare to answer the queries raised in the report during oral defence. The oral thesis defence shall be adequately notified so as to enable interested staff members and students to attend it.
2. (i) The ODC shall be chaired by the Head of the department and shall consist of Chairman, SRC, supervisor(s) and one Indian external examiner. The Chairman, SRC and the supervisor shall arrange the viva voce examination of the research scholar and the Head of the department will notify it. The oral defence of the thesis of the candidate shall be arranged as early as possible and normally within two months from the date of receipt of communication from the Controller of Examinations for holding the viva-voce examination.

(ii) In case of the inability of the supervisor to arrange the conduct of the oral defence of the thesis due to any reason whatsoever, the Vice Chancellor may appoint another faculty for oral defence from amongst the faculty of the department concerned belonging to the particular field of the thesis, in consultation with the Chairman, SRC and the Head of the Department concerned. The newly appointed faculty shall assist the Chairman, SRC to conduct the oral defence of the thesis. In such cases also, the Ph.D. work will be deemed to have been carried out under the guidance of the original supervisor(s) only.
- 3.a) In case of non-availability of the Indian External Examiner in conducting the viva-voce examination, the Controller of Examinations may get another examiner appointed to conduct the oral defence of the thesis from the panel of Indian examiners recommended by SRC. If need be, the SRC may suggest a fresh panel of examiners.
- b) The examiners in Oral Defence Committee (ODC) shall be provided with the comments made by the examiners before the viva-voce examination.

- c) If there is a difference of opinion among the viva-voce examiners in Oral Defence Committee (ODC), the recommendations of the ODC will be put up to the Vice Chancellor for a decision who may either direct that a fresh viva be held with a new ODC or recommend acceptance or otherwise to the Academic Council.
- d) On the completion of the oral Defence, the Oral Defence Committee shall recommend to the Controller of Examinations, one of the following courses of action:
 - (i) that the degree be awarded;
 - (ii) that the research candidate be re-examined at a later specified time in a specified manner;
 - (iii) that the degree shall not be awarded. The thesis will be rejected on the conclusion that the thesis is not genuinely the work of the research scholar.

In case of (i) and (ii), the Oral Defence Committee shall also provide to the research scholar a list of all corrections and modifications in the thesis (if required) including suggestions made by the examiners during the thesis evaluation.

The second viva-voce examination may be held in case of (ii) normally after a period of 3 months.

Any other matter not explicitly provided herein or of an exceptional nature, may be referred to the Vice Chancellor for his decision.

23.0 AWARD OF Ph.D. DEGREE

- 1. The Degree of Ph.D. shall be awarded by the Board of Governors upon the recommendation of the Academic Council, provided that:
 - a) The Oral Defence Committee so recommends;
 - b) The research scholar produces a 'No dues Certificate' in the prescribed form.
 - c) The research scholar has submitted one soft and two hard cover copies of the thesis; one for the Library of the Department and the other for the Central Library. The thesis should incorporate all necessary/ corrections/ modifications listed by the Oral Defence Committee (ODC).

24.0 MISCELLANEOUS

- 1. Notwithstanding anything contained in these Ordinances, all categories of the research scholars shall be governed by the ordinances, guidelines and procedures framed by the Academic council in this regard, and in force from time to time.
- 2. Unfair means and Plagiarism
 - a) In case a research scholar is found adopting or suspected of adopting unfair means before, during and after the examination or lifting of some other's work(s) and inserting it in his/her project, seminar and dissertation, etc. without proper acknowledgment, credit and reference or plagiarizing the dissertation/project report etc., such penal action shall be taken by the University as may be necessary

to uphold the sanctity and integrity of the examination system and the credibility of the University.

- b) All such cases may be taken suo-moto cognizance of by the University. Such cases may also be reported by examiners/invigilators/ supervisor(s)/ Chairman, DRC or any person to Dean, Research & Consultancy for consideration.

After giving an opportunity to the concerned research scholar(s) to explain the conduct/defend against the charge, the Chairman, Academic Council on the recommendation of Dean, Research & Consultancy shall take action to impose on the concerned research scholar(s) appropriate penalty including termination of registration or award of “F” Grade in the concerned course(s) etc.

25.0 INTERPRETATION

1. Any doubt or dispute in the interpretation of these Ordinances, it shall be referred to the Chairman, Academic Council, whose decision shall be final.
2. Eligibility for admission to Ph.D. programs in different disciplines shall be as per guidelines issued from time to time on admission procedures.

Doctor of Philosophy (Ph. D.)

PROGRAM SYLLABI

Course: RESEARCH METHODOLOGY			
Course Code: PHDM- 101	L T P	4 0 0	Credits: 4

Course Objective: The purpose of this course is to enable the students understand the fundamentals of research methodology and use them in their research endeavour.

SYLLABUS

Introduction	8
Scientific investigation, Statistics in scientific inquiry, Basic research, Development and applied research, Starter terminology, Research design and internal validity, Research strategy: qualitative and quantitative, The research process, Planning a research project and formulating research questions, Structuring the research proposal, Review of literature, Issue of plagiarism, Case study approach.	
Measurement and Scaling	6
Theory of measurement, Comparative scaling, Primary scales of measurement, Non-comparative scaling, Questionnaire design: Questionnaire design process, Focus group discussion, Pre-testing questionnaire, Construct validity and reliability.	
Sample Design and Data Collection	6
Census and sample, Sampling design process and external validity, Classification of sampling techniques: probability and non-probability sampling techniques, Sample size determination, Data collection process, Online data collection, and Interaction content on web.	
Descriptive Statistics	14
Data preparation, Data analysis strategy and conclusion validity, Measures of Central Tendency, Measures of Dispersion-range, Quartile Deviation, Mean Deviation, Standard Deviation, Skewness & Kurtosis, Probability concepts, Theoretical Distributions: Binomial Distributions, Normal Distribution, and Poisson distribution, Correlation and Covariance, Statistical software packages.	
Inferential Statistics and Multivariate Methods	16
Sampling Distribution, 1-Sample Kolmogorov-Smirnov z-test, Test of significance, t-test, Analysis of Variance (ANOVA), Simple linear regression, Multivariate regression, Moderation and mediation, Classification methods, Logistic, Binary, Probit, Factor Analysis, Cluster Analysis, Multi Dimensional scaling, MANOVA, Structured Equation Modelling.	
Nonparametric Statistics	6
Chi-Square Distributions, Wilcoxon rank-sum test and Mann-Whitney test, Kruskal-Wallis test, Rank Correlation, Goodness-of-Fit Tests.	

Note: One to two lectures are to be delivered on effective report writing and referencing using APA Guidelines.

Text Books

1. Saunders; *Research Methods for Business Students*; Pearson Education
2. William M.K. Trochim; *Research Methods*; Bizantra

Reference Books

1. V. Kumar; *International Marketing Research*; Prentice Hall of India
2. Hair, Anderson, Tatham and Black; *Multivariate Data Analysis*; Pearson Education
3. Michael, S. Lewis-Beck, Bryman, Alan E. and Tim, Futing Liao; *The Sage encyclopedia of Social Science Research Methods*; Sage Publications
4. Sherri, L. Jackson; *Research Methods: A Modular Approach*; Thomson Wadsworth
5. Yin, Robert K.; *The Case Study Anthology*; Sage Publications
6. Kaplan, David; *Structural Equation Modeling: Foundations and Extensions*; Sage Publications

Course: STATISTICAL PACKAGES FOR RESEARCH IN MANAGEMENT			
Course Code : PHDM 102P	L T P	0 0 3	Credits: 3

Objective: To enable the students to choose appropriate experimental and sampling designs, use elementary statistical methods to analyze data and draw inferences, use SPSS statistical software, and write statistical reports using correct terminology, analysis, and graphs.

SYLLABUS

SPSS-An Overview 2

Mouse and keyboard processing, Frequently used dialog boxes, Editing output, Printing results, Creating and editing a data file, Importing data from Excel files.

Data Management using SPSS: 6

Listing cases, Replacing missing values, Computing new variables, Recording variables, Exploring data, Selecting cases, Sorting cases, Merging files, Questionnaire design for data entry, Types of scales, Selecting cases, Recoding variables, Creating new variables, Treatment of missing data, Merging files, Reliability analysis of data and Scales, Data cleaning: finding and treating outliers, Levene's test for homogeneity of variances.

Inferential Statistics and Multivariate Analysis using SPSS 14

Sampling Distribution, 1-Sample Kolmogorov-Smirnov z-test, Test of significance, t-test, Analysis of Variance (ANOVA), Simple linear regression, Multivariate regression, Moderation and mediation, Classification methods, Logistic, Binary, Probit, Factor Analysis, Cluster Analysis, Multi-dimensional scaling, MANOVA.

Nonparametric Statistics 8

Chi-Square Distributions, Wilcoxon rank-sum test and Mann-Whitney test, Kruskal-Wallis test, Rank Correlation, Goodness-of-Fit Tests.

Structural Equation Modelling with AMOS 12

Overview, Causality, Background, SEM basics, SEM estimation, Testing Fit, Non-recursive models, Meas Models/CFA Spring break Hybrid models, SEM strategies, Traps, Categorical Data Special Models.

Text Books

1. *Discovering Statistics using IBM SPSS Statistics-Andy Field*; Sage Publications
2. *Quantitative Data Analysis with SPSS for Windows: A guide for social scientists*; Bryman, Alan and Duncan Cramer, Routledge; Tata McGraw Hill

Reference Books

1. *Data analysis with SPSS-* Sweet Stephen A., Allyn and Bacon/John Wiley
2. *Structural Equation Modeling with AMOS: Basic Concepts, Applications and Programming*; Barbara M Byrne/ Routled.

