



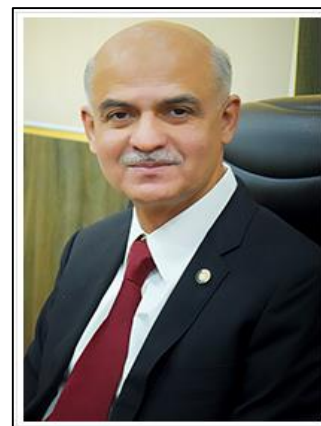
NUMS
NATIONAL UNIVERSITY
OF MEDICAL SCIENCES

Students' Handbook for Postgraduate Studies 2020

If you require this document or any of the internal University online resources mentioned in this document in an alternative format, please contact the Postgraduate Studies Office

**MESSAGE BY VICE-CHANCELLOR
NATIONAL UNIVERSITY OF MEDICAL SCIENCES**

NUMS is a broad-based university with particular emphasis on 'Understanding and Improving Life', as our motto says. It has an important role to play in the health care sector in Pakistan and is envisioned to help bring in improvements in education, creation of hitherto largely missing research infrastructure, and establishment of a university-run health care delivery system as an adjunct to the existing federal and provincial systems, to help improve its capacity and quality. The concept of 'one globe-one health' care will be comprehensively addressed at NUMS through inclusion of veterinary sciences. NUMS'



undertakings are multifarious but necessary including medical, nursing, allied health, veterinary, biomedical technologies, genetics and biological sciences. Emphasis is being laid on the basic, pure and applied sciences. These are linked with studies in Philosophy, education, humanities, psychosocial and behavioral sciences, and multidisciplinary studies. NUMS bears a heavy responsibility to ensure quality of its educational offerings and training, innovation and pertinence in its research; that serve the neediest areas of the country and humanity at large. All those who join NUMS will be provided equal opportunities to grow as all round individuals and the best care givers, taking merit and transparency as our guiding principles. We intend to instill in our staff and students, a passion to be of service to mankind while embarking on a challenging but satisfying career. With our diversely experienced faculty at NUMS constituent and affiliated institutes, our students will be trained with a view to become a reference point for health care related studies in the country. At NUMS, we are working hard to push the boundary of knowledge, investing time and energy in creating a learning environment in all our fields of study and research and rise to the expectations of our society. As head of the university, I welcome you all to be part of NUMS, to carve out a promising future for yourself and humanity at large.

Lt Gen Syed Muhammad Imran Majeed, HI (M) Retd

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CHAPTER I

THE UNIVERSITY

1. Introduction

This handbook is designed to provide students with general information and guidance on academic matters related to NUMS Postgraduate Programs and should be read in conjunction with the University's Policies and Regulations.

It is the responsibility of students to make themselves familiar with the contents of this handbook and also the University-wide policies and regulations. Information provided in this handbook may help them avoid unnecessary problems. Please do not hesitate to contact the Postgraduate Studies Office if you have any queries about this handbook.

2. About NUMS

National University of Medical Sciences (NUMS) was established as a Federal Public Sector University through an Act of Parliament on October 31st, 2015. The honourable President of Pakistan is the Chancellor of the University and the Chief of the Army Staff is the Pro-Chancellor.

NUMS was founded to promote and achieve excellence in advanced healthcare education, research and service delivery. The University is backed up by an extensive network of Military Hospitals, Single Specialty Institutes, Medical and Nursing Colleges making it the country's largest healthcare provider in terms of trajectory and patient volume.

This research-led institution provides opportunities in undergraduate and postgraduate education in diverse fields of Medicine, Dentistry, Nursing, Allied Health and Veterinary Sciences with a necessary add-on the Social Sciences and Liberal Arts.

NUMS envisages to achieve set goals by adopting best international standards and practices in medical education, training, and research along with modernization of medical infrastructure, whereas the benefits will have broad based socio-economic impact within the country and beyond.

As it grows, NUMS has the potential to become a force multiplier by supporting other service providers in this field, developing partnerships with the several advanced national and international universities, industrial, governmental and community based stakeholders in consonance with national vision and plan to develop knowledge based economy.

3. Vision of NUMS

The vision of National University of Medical Sciences is to improve the quality of life through education, research, innovation, and healthcare, thereby, contributing to endeavors to make Pakistan and this world better place to live in.

4. Mission of NUMS

The University will endeavor to improve existing knowledge, and practices in the fields of medical and allied life sciences; both pure and applied, including fields of

biomedical engineering and technologies, veterinary, biogenetic, social and behavioral sciences through innovative and creative approaches in order to offer best possible services to the society and humanity at large.

5. NUMS Core Values

The guiding principles of NUMS are based upon the following three core values:

- Innovation
- Integrity
- Inclusivity

6. Constituent College/ Institute for Postgraduate Studies

NUMS offers its standardized postgraduate programs for the award of degrees at

- Army Medical College (AM College), Rawalpindi
- Armed Forces Post Graduate Medical Institute (AFPGMI), Rawalpindi
- Army College of Veterinary Sciences, Sargodha
- NUMS Institute of Advanced Studies & Research (NIASR), Rawalpindi

7. Postgraduate Studies Office (PSO)

The University has already established the Postgraduate Studies Office (PSO) in the Academics Directorate to deal with affairs relating to the postgraduate academic programs in the light of instructions and guidelines of PM&DC, HEC and other regulatory authorities. The PSO acts as a hub for the implementation and execution of all policies and practices about academic affairs of the University for postgraduate programs. It has two sections:

- a. **Section I:** This section, headed by Director Academics, is responsible for postgraduate programs related to Basic Medical Sciences and Clinical Disciplines as mentioned below:

NUMS Programs	Degree Nomenclature
Basic Medical Sciences	<ul style="list-style-type: none"> • MPhil • MSc • MPH • MHPE
Clinical Programs	<ul style="list-style-type: none"> • Clinical Fellowship • MSc • Clinical Diploma

- b. **Section II:** This section, headed by Director Academics (Clinical), is responsible for postgraduate programs including Nursing, AHS, Biological, Social Sciences as mentioned below or any other non-medical programs to be started in future

NUMS Programs	Degree Nomenclature
Nursing	MSc
Biological Sciences	MS
Social Sciences	MPhil

The Postgraduate Studies Office (PSO) provides administrative support for all postgraduate programs, courses, faculty and students in the college/ institute. Each member of the PSO Team is available to help and provide advice on all aspects of postgraduate programs to faculty and students in the University. This Office

operates an open door policy and is available as a first line for students and faculty support; if you have any questions, please do not hesitate to visit the office during the office hours mentioned below. The NUMS Postgraduate Studies Office is situated in NUMS Secretariat, Rawalpindi.

Office Hours: 09:00 AM - 05:00 PM

Tel: 051- 9334656

Email: acad.dte@numspak.edu.pk

8. Current Post Graduate Programs at NUMS

NUMS offers its standardized postgraduate programs for the award of degrees specified in the table below at Army Medical College (AM College) Rawalpindi, Armed Forces Post Graduate Medical Institute (AFPGMI) Rawalpindi and any other constituent college/ institute as may be specified by the competent authority of the University from time to time.

S. No	Title of the Program	Institutes
PhD Programs		
1.	Doctor of Philosophy in Anatomy	AM College, Rawalpindi
2.	Doctor of Philosophy in Biochemistry	
3.	Doctor of Philosophy in Physiology	
4.	Doctor of Philosophy in Molecular Medicine	
5.	Doctor of Philosophy in Pharmacology	
6.	Doctor of Philosophy in Pathology	AFPGMI/ AFIP Rawalpindi
MPhil Programs		
7.	Master of Philosophy in Anatomy	AM College, Rawalpindi
8.	Master of Philosophy in Physiology	
9.	Master of Philosophy in Biochemistry	
10.	Master of Philosophy in Molecular Medicine	
11.	Master of Philosophy in Pharmacology	
12.	Master of Philosophy in Community Medicine	
13.	Master of Philosophy in Science of Dental Materials	
14.	Master of Philosophy in Chemical Pathology	AM College, Rawalpindi, AFPGMI/AFIP Rawalpindi
15.	Master of Philosophy in Microbiology	AM College, Rawalpindi, AFPGMI/AFIP Rawalpindi
16.	Master of Philosophy in Oral Pathology	AFPGMI/AFIP Rawalpindi
Master Programs		
17.	Master of Public Health	AFPGMI Rawalpindi
18.	Master of Science in Healthcare Administration	
19.	Master of Science in Cardiac Anesthesia	AFPGMI/ AFIC Rawalpindi
Diploma Program		
20.	Diploma in Cardiology	AFPGMI/ AFIC Rawalpindi
Certificate Program		
21.	Certificate in Health Professions Education	NUMS

9. Program Specification

For all postgraduate academic programs, standardized scheme of studies will be followed as per HEC's policy with the course work requirements as tabulated below:

S. No	Disciplines	NUMS Titles	Programs Requirements	Duration
Doctoral Programs				
1.	Doctorate	PhD	Total 48 credit hours consisting of 18 credit hours course work and 30 credit hours of research.	3-8 years
Master Programs				
2.	Basic Medical Sciences	MPhil	Credit Hours: 40 • Course work: 30 • Research work: 10	2-3 years
		• MSc • MPH • MHPE	Credit Hours: 30-40 • Course work: 24 - 34 • Research work/ Internship: 06	
3.	Clinical Disciplines	• Clinical Fellowship • MSc • Clinical Diploma	Credit Hours: 30-40 • Course work: 24 - 34 • Research/ Internship: 06	2-3 years
4.	Nursing	MSc	Credit Hours: 38 • Course work: 30 • Research: 06 • Seminar: 02	2-3 years
5.	Biological Sciences	MS	Credit Hours: 36 • Course work: 26 • Research work: 10	2-3 years
6.	Social Sciences	MPhil	Credit Hours: 40 • Course work: 30 • Research work: 10	06months

10. Faculty at NUMS

NUMS has a dedicated, experienced and highly qualified faculty that is responsible for teaching and training medical, dental and nursing students in their relevant departments and institutes. There are more than 50 PhD faculty members working in various programs being offered in NUMS colleges, hospitals/ institutes and their number is growing.

CHAPTER II

REGISTRATION AT NUMS

1. Registration of Student after Admission

- a. The College/ institute will send the duly filled registration form of each postgraduate student to the Registrar's Office (PG-01).
- b. All admitted students will then be registered with NUMS and the relevant Regulatory Authority.
- c. For any unforeseen reason, when a student cannot continue with his/ her studies in the University, the student may send an official request through his HOD and Dean/ Head of institution to the Registrar for clearance and notification of release from the University
- d. HEC policy for enrollment in dual degree program shall be adhered to. However, permission for enrollment in dual degree program shall be taken from HOD and concerned Dean
- e. **Foreign Students Under Student Exchange Programs.** They may be enrolled for any semester or for any single course and NUMS will issue transcript with letter grades at the end of the semester.
- f. Postgraduate students will be governed by NUMS regulations and policies after registration in the University.

2. Payment of Dues & Refund of Fees

- a. Fee structure of different PG programs is as under:

Programs	Annual Tuition fee in Pakistani Rupees
PhD/ MPhil/ MS	136,000
MPH	180,000
Dip Card	96,000

- b. Each student is required to pay the dues as may be prescribed by the University/institutes from time to time.
- c. Admission fee is non-refundable.
- d. Post-graduate program tuition fee may be refunded as follows:
 - 1) Up to 7 days of the commencement of classes: 100%.
 - 2) Within 8-15 days of classes: 50%
 - 3) More than 15 days of classes: No refund of fee.

3. Courses at other HEC Recognized Universities

The students may take courses at other HEC recognized universities subject to approval by the student supervisor and the concerned Dean.

4. NUMS Semester System

- a. NUMS shall follow semester system for all postgraduate academic programs each having two regular semesters in the academic year, Spring semester from

January till May and Fall semester from August till December. However, in special circumstances program can be started other than above mentioned time with approval from VC. Each regular semester shall be for 18 weeks' duration (including examination). There is additional summer semester of 09 weeks with weekly contact hours for a course being double of the regular semester

- b. Student may opt for deficient/ improvement courses in summer semester or whenever the course is offered. However, in deficient/ improvement courses, the student is required to complete all formalities applicable to repetition of a course, i.e., sessional, mid semester examination, project, assignments, quiz, etc and End Semester Examination
- c. **Course Credit.** A credit hour means teaching/ learning a theory course for one hour each week throughout the semester. One credit hour in laboratory or practical work/ project would require lab contact of three hours each week throughout the semester
- d. The credit hours are denoted by two digits within brackets with a plus in between. The first digit represents the theory part while the second digit represents the practical work like 3 (2+1) where 3 are total credit hours with 2 for theory and 1 for practical work
- e. Each department/ faculty shall clearly define the details of credit hours of its academic program which shall be shared with all stakeholders along with curricula
- f. Course load per semester shall be maximum twelve credit hours
- g. Course credit values awarded must reflect the quality and standards of the University and comply with the requirements of the NUMS/ regulatory bodies' qualification frameworks for that academic level
- h. Credits assigned to a course and course description shall be approved first from Faculty Board of Studies before sending to the University.
- i. Credits are earned only when the course and assessment have been completed successfully
- j. **Transfer of credit hours:**
 - 1) 'Transfer credit' is the granting of credit for academic work completed at another/ same HEC recognized institution
 - 2) Inward migration shall be allowed only from such institutions as have been approved or accredited by these authorities
 - 3) No credit hour of a course less than B-grade for post graduate programs shall be allowed. The student will have to cover the entire deficient course, if any
 - 4) A student desiring transfer of credits to NUMS shall file a formal application in the prescribed form along with no objection certificate (including character verification) for change of the University, copies of all previous transcripts/credit hours' transfers/course outline, HEC grant (if any) utilization and progress report. After verification of these documents by the Registrar, the concerned Dean shall, in consultation with the concerned heads of the department (HoDs) and supervisors, if any, determine the equivalency of the previous courses and furnish his/ her recommendations to the Vice Chancellor through the Registrar

- 5) A student must have a regular admission in the MS/MPhil program of the Institution, and should earn a minimum of 15 credit hours from the HEI from where he/ she will be entitled for the degree
 - 6) The credits transferred are counted towards the degree requirement and GPA of the transferred credits shall be counted towards the calculation of CGPA
 - 7) For outward migrations from NUMS, no objection certificates, transcripts and other documents shall be issued by the Registrar.
- k. **Change of Program:**
- 1) Program transfer facility shall only be for semester based Master programs only where eligibility criteria is same for both programs. This policy is not for PhD programs
 - 2) He/ She will apply to Registrar Dte with the approval of concerned HoDs within two weeks of initiation of first semester. Such a student shall be issued a registration number for new program by Registrar Directorate
 - 3) Transfer will depend on the availability of seat in the opted program.
 - 4) Only relevant/common courses shall be transferred with grades to the opted program.
 - 5) NUMS reserve the right to reject cases without assigning any reason
- l. **Freezing/ Deferment of academic session**
- 1) Freezing not exceeding two semesters shall be allowed only after successful completion of the first semester against filing of application in prescribed form (Form # PG-03). All applications in this regard shall be submitted before the commencement of the freezable semester(s) to the concerned head of department (HOD) who will send his/her recommendations for final approval through the concerned Dean to the Registrar.
 - 2) Freezing of first semester or deferment for one year may be requested in first semester under special circumstances, considered after approval of competent authority.
 - 3) For freezing of semester, student shall submit 25% of the monthly tuition fee in advance to maintain his/her registration. However, the student shall complete his/her degree requirement within the stipulated time (not exceeding the maximum limit)
 - 4) In case of deferment, student must take up his / her studies in the following academic year. Subsequent requests for deferred admission will not be considered
 - 5) Students granted deferred admission to a program of study will be admitted in the next academic session and will not be required to reappear the admissions test, re-sit for an interview or pay a new application fee
 - 6) Students shall not seek admission to another course/ program at any institute without prior written approval from the concerned Dean
 - 7) Where a request for deferred admission is denied, the individual will be required to reapply for admission

CHAPTER III

GENERAL ACADEMIC GUIDELINES FOR NUMS POSTGRADUATE STUDENTS

Following are the general guidelines for postgraduate students before the commencement of classes

1. Academic Activities

Our postgraduates are an important part of the community and students are strongly encouraged to participate in the various seminars, colloquia, workshops and conferences hosted by each subject area.

2. Core Courses

All core courses are compulsory.

3. Elective Courses

Elective courses may be selected according to the interests and with permission from the Program Coordinator/ Supervisor. Students will be assessed on these courses and the marks will be part of their overall coursework assessment.

4. Course Codes

All postgraduate courses have been allotted appropriate course code numbers preceded by suitable alphabets indicating the names of the respective course.

5. Description of Each Course

Course instructor will be responsible to provide his/ her students all the information regarding the course i.e. Course title, code and credit hours, objectives/ outcomes, course content, teaching methodology, assessment type and schedule.

6. Program Coordination

To facilitate the students and to ensure timely and trouble-free successful completion of the program, following members are appointed at least one month before the start of each semester.

a. Program Team

- 1) Program team will comprise of at least three faculty members including Head of department (HOD), senior faculty member and Program Coordinator.
- 2) Program team will be responsible for the implementation of curriculum and will duly ensure that the learning objectives are duly met as desired.
- 3) The Program team will also ensure that the defense of thesis of the students must be held only after completion of coursework (including core/ elective/ essential courses).

b. Program Coordinator

- 1) The Program Coordinator is available as a first line of pastoral support and advice for any scholarly or personal issues which may arise. It is the responsibility of a student to inform the Program Coordinator immediately about any problem that are interfering with their coursework or progression through the program.

- 2) A program coordinator will be appointed from the concerned department of the college/ institute for maintaining liaison and regular coordination with all the concerned. He/ she is responsible for the smooth implementation of his/ her respective program in accordance with the prescribed criteria.

c. Course Instructors

- 1) In the light of approved program, the Head of the Department will assign different courses to the faculty members. The students will be given a course handbook of the program including all details of the course. The academic progress of the students will be regularly monitored through the departmental heads.
- 2) Each Course Instructor will maintain Course File throughout the semester/ academic year. He /she shall submit this file to the concerned HOD at the end of each semester/ academic year for record keeping purpose.

7. Course Enrolments and Academic Activities

- a. Student will be required to submit coursework, attend an examination or a combination of both for assessment normally. In addition to the formal assessment he/ she may be expected to carry out other assignments, such as class presentations. Details of requirements for particular assessment will be provided in detail during lectures by the concerned faculty
- b. Students are solely responsible for ensuring that their course choices do not clash and that they are fully aware of when and where each course will take place.

8. Educational Strategy and Information Transfer

For all postgraduate academic programs, curriculum will allow the students to work collaboratively through collective involvement/ participation. The curriculum has been made more systematic with clear focus on predefined learning objectives. Problem- based learning will be used through most of the curriculum by using real world scenarios. Student will have to comprehensively complete core curriculum meanwhile covering extra topics or subjects of their own choice in electives.

9. Modes of Information Transfer (MIT)

Modes of information transfer (MIT) includes structured lectures (SL), small group discussions (SGD), workshops/ seminars/ conferences, journal club meetings (JCM), clinic-pathological conferences (CPC), laboratory work/ skill session, clinical rotation, on the job training (OJT)/ practical/ internship, study tours, and self-directed learning, depending upon the course taken. In case of unforeseen circumstances, online technology may be used for the continuation of academic program

10. Award of Degree

All post graduate students must fulfil all such requirements for the award of degrees as have been prescribed by the University in respective chapters.

CHAPTER IV

PhD PROGRAMS

At present, Doctor of Philosophy (PhD) programs are being offered in basic medical sciences and pathology with a view to impart focused research training to scholars and to prepare skilled personnel with innovative research capabilities to make meaningful and productive contribution towards the socio-economic development of the society.

1. Program Duration

Total duration of PhD program is 3-8 years. However, the course work shall preferably be completed in one year. Period for the completion of PhD will be counted from the date of admission to the final submission of thesis

2. General Information

a. Following is the approved scheme of study

Semester Duration	18 weeks
Regular Semesters	06
Advance Course work	18 Credit Hours
Research	30 Credit Hours
Total	48 Credit Hours

- b. Advanced coursework for part time scholar can be arranged for one week in each month to complete required contact hours as per HEC after approval from the concerned Dean.
- c. The scholar may go off campus after 6th semester on completion of research work in campus or in any other research institutions/organizations
- d. Scholars shall be required to submit duly filled Postgraduate (PG) forms (**Annex-F**) downloadable from NUMS website <https://numspak.edu.pk/course/postgraduate-forms-and-policies>) to be used for postgraduate studies
- e. The Dean/ Head of Institute shall be responsible for proper implementation of program curriculum and periodical monitoring of scholars' progress through the HOD and program coordinator
- f. HOD shall plan/ assign the courses to the faculty members at the commencement of academic session. He/she shall keep up overall supervision of the program and intimate the faculty names to the Academic/ Examination/QA Directorates and timely assessment/examination (Form # PG-08).
- g. The concerned course instructors shall be responsible for the conduct of courses, maintenance of course files and timely submission of assessment/examination results after approval of HOD to the Examination Directorate. The curriculum/courses details shall be provided to the scholars by the concerned faculty member
- h. Supervisor must be a HEC approved supervisor and faculty member of the concerned Institution holding PhD degree with at least three years' post-

qualification experience in the relevant field. Five PhD scholars can be registered with one HEC approved supervisor. A supervisor for each PhD scholar shall be nominated by the HOD as approved by the concerned Dean to provide guidance and supervision to the scholar (PG-04). Supervisor shall give willingness on the prescribed form (PG-05).

- i. **Formulation of Supervisory Committee.** The Supervisory Committee (SC) of a PhD scholar will be nominated by the supervisor/ HOD and approved by the concerned Dean within 4 weeks of 1st semester (PG-06). Supervisor and SC shall finally be endorsed by AS&RB. The Committee must consist of at least four PhD degree holders in the relevant subject with at least 3 years post qualification experience. At least two members should be from the concerned faculty including HOD and scholar's supervisor. However, if HOD is not PhD qualified, then any other member from the department may be included in the Committee. The Committee shall also have two external members from other institute/ university/ research organization. In case of multidisciplinary research, more than two external members should be included in the Committee after approval from the Vice Chancellor
- j. In case of any change of supervisor, co-supervisor or any committee members, HOD will incorporate change in the Supervisory Committee's petition form (PG-07) accordingly and send it to the Academics Directorate after approval from the Dean
- k. The SC meetings shall be held at least once in six months during the research phase of the PhD scholar in the department or by conference call for external members. The proceedings of SC meetings shall be recorded and meetings shall be chaired by the supervisor.

3. Conduct of PhD Course

- a. In the first semester, scholar will study three core course of 03 Credit Hours each. These core courses are common for all basic medical sciences and pathology discipline

Core Courses: 9 Credit Hours (Common for all discipline)

S. No	Course Code	Course Title	Credit Hours
1.	BMR-811	Advanced Research Methodology/ Biostatistics	3(2+1)
2.	BMR-812	Advanced Molecular Biology	3(2+1)
3.	BMR-813	Laboratory Instrumentation & Technique	3(2+1)

- b. Scholar will select three elective courses of 03 credit hours each in second semester and intimate Academics Directorate with the approval of his/ her supervisor one month before the second semester

Elective Courses: 9 Credit Hours (min.3 courses have to be selected)

PhD Pathology			
S. No		Course Title	Credit Hours
1.	PTH-801	Recent Advances in Clinical Chemistry	3(2+1)
2.	PTH-802	Special Clinical Chemistry	3(2+1)
3.	PTH-803	Pediatric Metabolic Disorders	3(2+1)

4.	PTH-804	Toxicology and Therapeutic Drug Monitoring	3(2+1)
5.	PTH-805	Advanced Techniques in Diagnostic Microbiology	3(2+1)
6.	PTH-806	Industrial Bio-technology and Microbiology	3(2+1)
7.	PTH-807	Immunization and Vaccine Development	3(2+1)
8.	PTH-808	Nano Biotechnology: Concepts and Applications	3(2+1)
9.	PTH-809	Red Blood Cells Disorders/ Transfusion Medicine	3(2+1)
10.	PTH-810	Coagulation disorder and Thrombosis	3(2+1)
11.	PTH-811	Tumours of Haematopoietic and Lymphoid Tissues	3(2+1)
12.	PTH-812	Cellular Mechanisms of Disease	3(2+1)
13.	PTH-813	Special Pathology-1	3(2+1)
14.	PTH-814	Special Pathology-2	3(2+1)
PhD Biochemistry			
1.	BCH-821	Advanced Cell Biology	3(2+1)
2.	BCH-822	Genomics & proteomics	3(2+1)
3.	BCH-823	Signal transduction	3(2+1)
PhD Molecular Medicine			
Core Courses	MME-821	Molecular basis of diseases	3(2+1)
	MME-822	Human Genetics	3(2+1)
Elective Courses (anyone)	MME-801	Genomics & Proteomics	3(2+1)
	MME-802	Stem Cell Biology	3(2+1)
PhD Physiology			
1.	PHY-801	Advanced Cell Biology	3(2+1)
2.	PHY-802	Advanced course in Endocrine & Reproductive Physiology	3(2+1)
3.	PHY-803	Advanced course in Cardiovascular Physiology	3(2+1)
4.	PHY-804	Advanced course in Neurophysiology	3(2+1)
5.	PHY-805	Advanced course in Respiratory Physiology	3(2+1)
6.	PHY-806	Advanced course in Renal Physiology	3(2+1)
7.	PHY-807	Advanced course in Blood Physiology	3(2+1)
8.	PHY-808	Advanced course in Gastrointestinal and Liver Physiology	3(2+1)
9.	PHY-809	Nerve & Muscle Physiology	3(2+1)

- c. After completion of course work of 18 CHs with CGPA ≥ 3.00 , scholar may appear in the doctoral comprehensive examination.
- d. The HoD shall ensure proper compliance of NUMS regulations and policy for the conduct, assessment and timely submission of semester assessments' results to the Academic/Examination Directorates (FormPG-08).
- e. The respective course instructors shall be responsible for all quizzes, sessional, mid-semester examinations and evaluation of written course related assignments.
- f. The end-semester examinations will be conducted by the Examination Directorate and grading of scholars shall be done as per NUMS regulations.

- g. For repetition/improvement of course, request shall be sent on the prescribed form (Form # PG-09)

h. Bi-annual Progress Report

- 1) The bi-annual progress report must be completed by the end of July and January after course work. The scholar is required to indicate the work carried out during the previous six months. The progress will include:
 - i. Stages of the research work completed
 - ii. Goals met over the previous six months and goals set for the next six months
 - iii. Supervisor's satisfaction with scholar's performance/ remarks
- 2) The supervisor through the concerned HOD/ Dean will send bi-annual report of each scholar in prescribed form (PG-10) to the Academics Directorate.

4. PhD Qualifying Comprehensive Examination

- a. The comprehensive examination is intended to test the scholar's in-depth knowledge and understanding of the chosen field of study. The PhD comprehensive examination will be jointly administered by the concerned Dean, Director Academic and Controller of Examination.
- b. Scholar must have completed required course work of 18 CHs with CGPA ≥ 3.00 to appear in doctoral comprehensive examination
- c. Minimum 70% marks in written comprehensive exam and successful defense of the research proposal within two years are required to qualify for further continuation of PhD program.
- d. The examination will be conducted in two parts in the following manner:

1) Written Comprehensive Examination.

- i. A comprehensive examination scheme of written part will cover the complete PhD course work. It will not be a mere re-examination of previous courses but will test the scholar's ability to integrate and assimilate the knowledge obtained from the courses, seminars and independent studies.
- ii. Comprehensive Examination Committee will prepare the written paper under supervision of concerned Dean. It will consist of two sections having 04 questions in section one covering three compulsory courses including research proposal summary (1-2 page) of his/ her planned research and six questions in second section covering three advanced elective courses selected by the scholar / recent advances in their field.

2) Oral Examination.

- i. Oral examination shall be conducted after the scholar has qualified written qualifying examination
- ii. Every PhD scholar will be required to submit a research proposal request (PG-12) in prescribed form along with two copies of the synopsis for approval of IRB (PG-13) wherever required.
- iii. Thereafter, five copies of the synopsis shall be submitted to the concerned Dean's Office for synopsis defense

- iv. The Dean will finalize the synopsis presentation schedule (PG-14) and constitute a PhD Synopsis Evaluation Committee (SEC) comprising of supervisory committee with Dean himself being a Chair. The synopsis evaluation committee (PG-15) along with schedule of synopsis presentation will be sent to each SEC member, NUMS Academics Directorate, Examination Directorate & QA Directorate
 - v. Head of Department (HOD) and Dean/ Commandant/ Principal would be the voting members only if they are PhD qualified in the relevant field.
 - vi. The scholar will present their synopsis before the PhD Synopsis Evaluation Committee (SEC) and rep from NUMS Academics Directorate, Examination Directorate & QA Directorate. The approval of synopsis shall be done by using the prescribed evaluation score form (PG-16).
 - vii. The scholar has to defend his/ her thesis synopsis as a part of this oral examination. The Oral Examination Committee shall determine by majority vote. The examination will be graded as Pass/ Fail. Only pass scholar will be allowed to proceed for the doctoral research.
 - viii. The SEC may recommend changes in the synopsis and repeat presentation within stipulated time. The approval of synopsis shall be finalized by majority vote. The approved synopsis report in the prescribed form (PG-17) shall be sent to the Academics Directorate under endorsement from the Dean concerned for approval from AS&RB
 - ix. If any observation/ revision in research title/ project is needed, scholar will resubmit the title/ project through concerned institute with all above formalities after approval from FBS and AS&RB. (Form # PG-17-b)
- 3) Unsuccessful candidates in either part will be given one more chance only, to appear in the failed part within a time period to be decided by the Supervisory Committee. Upon failure in oral part, examination committee members will submit a comment's page, which would clearly document reasons for failure. These comment pages duly signed by each committee member will be submitted to Academic and Examination Directorates, NUMS by the concerned Dean. A duplicate copy of these would also be provided to the scholar.
 - 4) NUMS will pay Rs. 200,000/- to each PhD scholar for research purposes after approval of synopsis
 - 5) A scholar who has passed the comprehensive examination shall be deemed to have become a candidate for PhD degree.
- 5. Research Work.**
- Every PhD scholar will start research work under his/ her supervisor and keep the Supervisory Committee members updated about the research work progress. He/ she is required to complete a minimum of 30 credits of PhD research and finish his/ her research within stipulated time
- 6. Guidelines for Synopsis & Dissertation/Thesis Writing.** Available on NUMS website
- 7. Publication.**
- Every PhD scholar must have at least one research paper relevant to the research

title published in an impact factor journal (W category) indexed in ISI web of knowledge/science for sciences subjects and Y category for social sciences. Record of such publication(s) shall be furnished to the Academics Directorate in the prescribed form (Form # PG-18).

8. Dissertation Evaluation Process.

- a. After publication, PhD dissertation will be evaluated by following:
 - i. Dissertation Examiners Committee (DEC) comprising of two internal and two external members from PhD Supervisory Committee
 - ii. Two foreign evaluators from technologically advanced countries as approved by Advanced Studies and Research Board (AS&RB)

b. Dissertation Evaluation by DEC.

Every PhD scholar will write the dissertation in the NUMS prescribed format. He/ She will submit the draft to his/her supervisor who will review it thoroughly and check the similarity index by using Turnitin software. If satisfied, the supervisor will recommend the thesis to be submitted to DEC. The scholar will submit prescribed dissertation verification form (PG-19) with five copies of soft bound draft dissertation to the concerned Dean Office through HOD. NUMS Academic Directorate will be intimated through acknowledgment receipt (PG-20) through Dean office.

If any changes/ amendments are suggested by any member of DEC, the supervisor shall ensure that necessary alterations are properly made in the dissertation. After rectification of observation, dissertation shall be sent to foreign evaluators through Dean office with intimation to NUMS Academic Directorate

c. Foreign Evaluation of Dissertation

Supervisors of all PhD programs shall send names of at least three foreign reviewers from developed countries during the research phase of their PhD scholars to Academics Directorate for approval by Advanced Studies and Research Board (AS&RB)

The Dean shall send the letter (Form # PG-21 (b) for evaluation of dissertation to two foreign evaluators who will review and send the dissertation evaluation report to Dean's Office. If any out of two is not sending the report within two months, then the dissertation will be sent to the third foreign evaluator

If any changes/ amendments are suggested by any evaluator, the supervisor shall ensure that necessary alterations are properly made in the dissertation. The Dean will review and send the final foreign evaluators' report through Academics Directorate for approval by Advanced Studies & Research Board

If satisfactory report is given by both foreign evaluators, it will be considered approved. However, if satisfactory report is given by one out of two foreign evaluators, dissertation will be sent to third foreign evaluator from the approved list

d. Dissertation Defense.

After receiving satisfactory report from foreign evaluators, the Dean will schedule a date for final defense of the dissertation and necessary intimation/ invitation letter in prescribed form (PG-24 a) will be forwarded to NUMS Secretariat (Academics Directorate, Examination Directorate & QA Directorate)

and other institutions of NUMS at least two weeks in advance.

The presentation and defense of the dissertation will be open. The scholar shall present the dissertation in the presence of the Dean and two internal and two external examiners. The grading of thesis research shall be done by a majority vote using prescribed evaluation score form (PG-25). However, its scoring shall not be considered for CGPA calculation. The examiners may approve the dissertation as such, recommend minor or major changes in the dissertation, or may not approve and repeat the presentation if required. In case of approval of the dissertation, a prescribed report duly signed by all members of the Committee will be prepared. (PG-26).

The scholar will prepare five bound copies and CDs within ten working days and submit the same to the supervisor. If any amendment has been suggested during the dissertation defense and the supervisor approves that for inclusion in the dissertation, the supervisor will give the scholar a maximum of two weeks' time for its incorporation. The final draft will be approved by the Dean.

The finally approved bound copies will be submitted to the HOD through the supervisor within fifteen working days of the examination date. The date of signatures by the Dean will be taken as degree award date. The HOD will forward four bound copies & CDs of the final dissertation to the Academics Directorate. The Directorate will check the documents received under the prescribed form (PG-27) for award of degree and forward the dossier, result and one hard and soft copy of the dissertation to the Examination Directorate for record and prescribed gazette notification. One hard and soft copy is kept in Academic Directorate, one in library and one copy of PhD Dissertation (both hard and soft) will be submitted to HEC for inclusion in PhD Country Directory and for attestation of PhD degree by the HEC in future

9. Award of Degree Requirement

A scholar must fulfill all of the following requirements for award of PhD degree

- a. Completed advanced course work of 18 CHs with CGPA >3.00
- b. Qualify comprehensive examination with minimum 70 % marks
- c. Research work of 30 CHs
- d. At least one research paper published/ accepted for publication in impact factor journal
- e. Satisfactory thesis evaluation reports from two foreign external examiners from the technologically advanced countries
- f. Successful defense of thesis in the prescribed manner

PhD Degree Road Map

- Admission (submission as per check list)
- Registration (Form # PG-01)

1st Regular Semester:

- Advance Course Work: 09 CH
- Appointment of Supervisor (Form # PG-04)
- Willingness of Supervisor (Form # PG-05)
- Supervisory Committee Formation (Form # PG-06)
- Approval of Supervisor and Supervisory Committee from AS&RB
- Semester Exam

2nd Regular Semester:

- Advance Course Work :09 CH
- Semester Report (Form # PG-08)

3rd Semester

- PhD Qualifying Exam Report (Form # PG 11)
- Synopsis Submission (Form # PG-12)
- IRB&EC Approval Letter (Form # PG-13)
- Schedule of Synopsis Presentation (Form # PG-14)
- Synopsis Evaluation Committee (Form # PG-15)
- Synopsis Evaluation Report (Form # PG-16)
- Synopsis Approval Report (Form # PG-17)
- Research Work: 06
- Bi-Annual Proqress Report (Form # PG-10)

4th Semester

- Research Work: 09 CH
- Bi-annual Proqress Report (Form # PG-10)

5th Semester

- Research Work: 09 CH
- Publication (Form PG 19)
- Bi-annual Progress Report (Form # PG-10)

6-16th Semester

- Research Work: 6 CH
- Bi-annual Progress Report (Form # PG-10)
- Change of Synopsis Title/Project (Form # 17-b)
- Publication Record (Form # PG-18)
- Thesis Submission/Verification (Form # PG-19)
- Acknowledgement Receipt of Thesis (Form # PG-20)
- Thesis Evaluation Request (Form # PG-21)
- Thesis Evaluation Reports (Form # PG-22)
- Foreign Evaluators Report (Form # PG-23)
- Schedule of Thesis Defense (Form # PG-24)
- Thesis Evaluation Report (Form # PG-25)

CHAPTER V

MASTER PROGRAMS

1. Preamble

NUMS offers Master programs in different disciplines of basic, biological, social and clinical medical sciences at its constituent institutions with aim to create high quality human resource in the country

2. Program Duration

The duration of all Master programs is 2-3 years extendable for further one year by the Faculty Board of Studies. The period will be counted from the date of commencement of classes to the final submission of thesis

3. General Information

- a. The Head of Institution in coordination with the Dean shall be responsible for overall proper implementation of the program courses. HOD shall assign courses to different faculty members under intimation to PGO of Academic Directorate. The HOD shall monitor the academic progress of the students with the help of the Program Coordinator
- b. Students shall be required to submit duly filled Postgraduate (PG) forms (**Annex-A**) downloadable from NUMS website <https://numspak.edu.pk/course/postgraduate-forms-and-policies>) to be used for postgraduate studies
- c. **Supervisor nomination.** Preferably within one month of the commencement of the first semester, the Head of the Department shall, on approval from the Dean nominate supervisor (Form # PG-04) and confirmation will be given by supervisor (Form # PG-05), for each of the students from within the available faculty.
- d. Supervisor must be a faculty member of the concerned Institution holding qualifications as PhD with at least three years' post-qualification experience in the relevant field or FCPS/ MPhil or equivalent with four years' post-qualification experience in disciplines where PhD faculty is limited. Maximum eight Master students can be registered with one HEC approved supervisor with PhD qualification. If supervisor has qualification as FCPS/ MPhil or equivalent, maximum five students will be allowed to register with him/ her
- e. **Supervisory committee.** Supervisory Committee (Form # PG-06) consisting four members (at least two from department including student's supervisor and internal member and two external members from another institute/university/research organization) of similar qualifications, shall be constituted. If HOD is not supervisor, he/she shall be taken as member of the Committee. Members of the Supervisory Committee and even the Supervisor can be changed in case of exigencies or unavoidable circumstances (Form # PG-07). Unless otherwise decided by the Dean, the Committee shall be chaired by the Supervisor. In case of multidisciplinary research, more than two external

- supervisors may be approved by the Vice Chancellor. The proceedings of SC meetings shall be recorded and its meetings shall be chaired by the supervisor
- f. The supervisor through the concerned HoD/ Dean shall send bi-annual report of each student in prescribed form (Form # PG-10) to the Academics Directorate by the end of third semester and fourth semester if research work is not completed
 - g. A student may improve or repeat the courses as per NUMS policy (Form # PG-09). End semester examinations shall be conducted by the Examination Directorate
 - h. **Synopsis Approval.** Within first month of the third semester, every MPhil student is required to submit a research proposal request (PG-12) to Dean's Office along with two copies of the synopsis for approval of IRB (PG-13). Thereafter, three copies of the synopsis shall be submitted to the concerned Dean's Office for synopsis defense
 - i. **Synopsis Evaluation Committee (SEC).** Dean will constitute Synopsis Evaluation Committee (SEC) (PG-15) consisting of the supervisor, one internal and one external member with Dean himself being the chair. The Dean will decide about the synopsis presentation schedule (PG-14). Assessment of the synopsis will be done on the prescribed evaluation form (PG-16) by SEC on presentation as per schedule. The Committee may accept, reject or direct for substitution or amendments of the synopsis. Approved synopsis (PG-17) along with its assessment results should be furnished to the Academics Directorate. If any observation/ revision in research title/ project is needed, student will resubmit the title/ project through concerned institute with all above formalities after approval from FBS. (Form # PG-17-b). NUMS will pay Rs. 50,000/- to each M. Phil student for research purpose after approval of synopsis.
 - j. **Research Work.** The research work will be carried out under the direct guidance and supervision of the supervisor who will keep the members of the said committee abreast of the progress of the research work as per the procedures prevalent in the institution. Research work should be completed within stipulated time. However, time may be extended by the committee on concurrence from the Academics Directorate provided a student has completed 50% of the research work as certified by the supervisor. If extension is required, student will give an application to the HOD through the supervisor. The HOD will forward the application to the Dean along with a certificate clearly indicating that the student has completed 50% or more of the research work. The Dean will recommend the case for extension period on merit and send to the Academics Directorate for approval prior to the start of the extension period.
 - k. **Research Paper.** In MPhil and MS programs, each student will have to submit one research paper with acknowledgment of concerned journal to corresponding author, in any of the PM&DC/ HEC approved journals (Form # PG-18)
 - l. **Thesis Evaluation Committee.** The Dean will approve the thesis examiners comprising of the supervisor, one internal and two external examiners (PG-21).
 - m. **Thesis Preparation/ Submission.** Every MPhil student should write his/her thesis in the prescribed manner and format. After careful review and similarity index

check by using 'Turnitin' software which should be <19% as per HEC's guidelines, the concerned supervisor will recommend the thesis for final evaluation. The student will submit against acknowledgement receipt (PG-20), his prescribed thesis verification form (PG-19) with five copies of soft bound draft thesis to the concerned Dean's Office through the concerned departmental head

- n. **Thesis Evaluation.** The Dean will approve the thesis examiners comprising of the supervisor, one internal and two external examiners (Form # PG-21). On reference from the Dean, the examiners will review and send the thesis evaluation report in the prescribed form (Form # PG-22) to Dean office within four weeks. If the internal and external examiners give satisfactory report, the student shall be allowed to proceed for defense of thesis examination. The changes/ amendments, if suggested by the examiners, shall be incorporated in the thesis
- o. **Thesis Defense.** After receiving a satisfactory thesis evaluation report, the Dean will schedule a date (PG-24) under intimation to the Academics Directorate/ Controller of Examinations/ Director QA and Heads of the concerned College or Institute for final open presentation-cum-defense of the thesis in presence of the Dean and the examiners concerned. Abstract shall be submitted on Form # PG 24-b. The thesis and its research will be evaluated (PG-25) and approved through scores-based grading in the prescribed form (PG-26).

Final defense of the thesis shall be in presence of the Dean and two internal and two external examiners. The grading of thesis research shall be done by a majority vote using prescribed evaluation score form. However, its scoring shall not be considered for CGPA calculation.

The examiners may approve the thesis as such, recommend minor or major changes in the dissertation, not approve and repeat the presentation if required

The finally approved bound copies shall be submitted to the HoD through the supervisor within one month after thesis defense. The date of signatures by the Dean will be taken as degree award date.

The HOD shall forward three bound copies & CDs of the final thesis to the Academics Directorate. One hard and soft copy is kept in Academic Directorate, one for Examination Directorate and one for library

The Academics Directorate will check the documents required for award of degree (PG-27) and forward the dossier, result and bound copies of thesis to the Examination Directorate for record and gazette notification

Student will be allowed to go for thesis defense only if he/ she has completed 30 CH of coursework including core and electives with $CGPA \geq 2.5$

4. Award of Master's degree.

- a. **MPhil/MS.** The student must have completed total credit hours of course work with $CGPA \geq 2.50$ and research work of 10 credit hours followed by successful defense and one research paper submitted with acknowledgment of concerned journal to corresponding author, in any of the PM&DC / HEC approved journals

- b. **Other Master degrees.** The student must have completed total credit hours of course work with CGPA ≥ 2.50 and research work of 06 credit hours followed by successful defense

5. MPHIL PROGRAM

1) Introduction.

The aim of this program is to create high quality human resource in country in the diversified fields of medical, clinical and social sciences. NUMS is currently offering MPhil programs in multiple disciplines of basic medical sciences and pathology. Well-qualified/ experienced faculty is available in our constituent institutions

2) General Scheme of Studies of MPhil Program.

Semester Duration	18 weeks
Course Duration	2-3 years
Regular Semesters	04
Course Load per Semester	09 -12 Credit Hours
Core Courses	24 Credit Hours
Elective courses	06 Credit Hours
Research	10 Credit Hours
Total	40 Credit Hours

3) Conduct of MPhil Course.

- a) MPhil programs comprise of four semesters with following course work.

Semesters	Course Work	Credit Hours
1st Semester	Core Courses	12 Credit Hours
Summer Semester	Any deficient course/ improvement	
2nd Semester	Core Courses	12 Credit Hours
3rd Semester	Elective Courses	06 Credit Hours
	Research Work	04 Credit Hours
Summer Semester	Any deficient course/ improvement	
4th Semester	Research Work	06 Credit Hours

- b) In the first and second semesters, there are 04 core courses relevant to the discipline of 03 credit hours each.
- c) Course details of core courses for MPhil programs are given below:

Course Code	Course Title	Credit Hours
ANATOMY		
FIRST SEMESTER		
ANT-711	General Anatomy	03
ANT-712	Micro Techniques	03
ANT-713	Human Histology	03
ANT-714	Regional Anatomy-I	03
SECOND SEMESTER		
ANT-721	Regional Anatomy-II	03
ANT-722	Embryology	03
ANT-723	Human Neuroanatomy	03
RMS-724	Research Methodology and Biostatistics	03
BIOCHEMISTRY		
FIRST SEMESTER		
BIO-711	Biochemistry of Cell and Enzymes	03
BIO-712	Cellular Metabolism I	03
BIO-713	Cellular Metabolism II	03
BIO-714	Bioenergetics and Blood Chemistry	03
SECOND SEMESTER		
BIO-721	Advanced Molecular Biology	03
BIO-722	Nutrition, Electrolytes and Acid Base Balance	03
BIO-723	Endocrinology	03
RMS-724	Research Methodology and Biostatistics	03
PHYSIOLOGY		
FIRST SEMESTER		
PHY-711	Physiology of cell & excitable tissues	03
PHY-712	Blood Physiology	03
PHY-713	Gastrointestinal & Renal Physiology	03
PHY-714	Pulmonary Physiology	03
SECOND SEMESTER		
PHY-721	Physiology of Endocrines and Reproduction	03
PHY-722	Neurosciences	03
PHY-723	Cardiovascular System	03
RMS-724	Research Methodology and Biostatistics	03
COMMUNITY MEDICINE		
FIRST SEMESTER		
CME-711	General Epidemiology	03
CME-712	Disease Epidemiology	03
CME-713	Community Nutrition	03
CME-714	Environmental and Occupational Health	03
SECOND SEMESTER		
CME-721	Reproductive Health and Demography	03
CME-722	Basic and Applied Biostatistics	03
CME-723	Health Education and Communication	03
RMS-724	Research Methodology and Biostatistics	03

PHARMACOLOGY		
FIRST SEMESTER		
PHR-711	General Pharmacology	03
PHR-712	ANS/ Respiratory System	03
PHR-713	CNS/ Drugs used in Inflammatory conditions	03
PHR-714	NSAIDS/ GIT, Drug treatment of Glaucoma Migraine, Antihistamines	03
SECOND SEMESTER		
PHR-721	Drugs acting on CVS/Diuretics	03
PHR-722	Chemotherapy/ Antineoplastics	03
PHR-723	Endocrinology/ Blood	03
RMS-724	Research Methodology and Biostatistics	03
DENTAL MATERIAL		
FIRST SEMESTER		
DNM-711	Biocompatibility of Dental Materials	03
DNM-712	Tissue Engineering	03
DNM-713	Dental Materials-I	03
DNM-714	Advanced Topics in Dental Materials-I	03
SECOND SEMESTER		
DNM-721	Dental Materials-II	03
DNM-722	Advanced Topics in Dental Materials-II	03
DNM-723	Biomaterials	03
RMS-724	Research Methodology and Biostatistics	03
MOLECULAR MEDICINE		
FIRST SEMESTER		
MME-711	General Molecular Biology	03
MME-712	Cellular Biology	03
MME-713	Human Genetic-I	03
MME-714	Advances in Medical Biochemistry	03
SECOND SEMESTER		
MME-721	Endocrinology and Signalling	03
MME-722	Applied Genetics in Medicine	03
MME-723	Trends in Biotechnology & Bioinformatics	03
RMS-724	Research Methodology and Biostatistics	03
CHEMICAL PATHOLOGY		
FIRST SEMESTER		
CHP-711	Pathophysiology of Human Diseases	03
CHP-712	Endocrine Disorders	03
CHP-713	Basic Laboratory Principles & Techniques	03
CHP-714	Analytical Techniques	03
SECOND SEMESTER		
CHP-721	Clinical Chemistry Analytes	03
CHP-722	Special Clinical Chemistry	03
CHP-723	Laboratory Management	03
RMS-724	Research Methodology and Biostatistics	03

MICROBIOLOGY		
FIRST SEMESTER		
MIB-711	Fundamental Bacteriology	03
MIB-712	General Microbiology	03
MIB-713	Special Microbiology-I	03
MIB-714	Special Microbiology-II	03
SECOND SEMESTER		
MIB-721	Immunology	03
MIB-722	Virology	03
MIB-723	Parasitology	03
RMS-724	Research Methodology and Biostatistics	03
ORAL PATHOLOGY		
FIRST SEMESTER		
ORP-711	Histological & Gross Techniques	03
ORP-712	FNAC & General Pathology	03
ORP-713	Dental Disorders	03
ORP-714	Salivary Glands & Soft Tissue Pathology	03
SECOND SEMESTER		
ORP-721	Hematological, Dermatological Diseases and epithelial pathology	03
ORP-722	Infections and Immunological Disorders	03
ORP-723	Bone Pathology and Odontogenic Cysts & Tumors	03
RMS-724	Research Methodology and Biostatistics	03

- 4) Head of Department will be responsible for the conduct of elective courses, will inform Academic and Exam directorate about the elective courses chosen by each student before the start of 3rd semester.
- 5) Course instructor will maintain the results of quizzes, sessional and mid semester exam. Exam and Academics directorate will be intimated before end semester exam
- 6) Students shall select two elective courses of 03 credit hours each for the third semester from the list given below:

*List of Elective Courses

Course Code	Course Title	Credit Hours
BMS-701	Animal Handling	03 (0+3)
BMS-702	Molecular Biology	03 (0+3)
BMS-703	Computer Applications in Public Health	03 (0+3)
BMS-704	Seminar	03 (0+3)
BMS-705	Internship	03 (0+3)
BMS-706	Characterization of Biomaterials	03 (0+3)
BMS-707	Practical Application of Immuno-histochemistry	03 (0+3)
BMS-708	Application of AutoCAD Histomorphology	03 (0+3)

BMS-709	Healthcare Delivery and Management	03 (0+3)
BMS-710	Methods of Teaching and Evaluation	03 (0+3)
BMS-711	Cardiac Electrophysiology	03 (0+3)
BMS-712	Laboratory Transfusion Services	03 (2+1)
BMS-713	Advance Instrumentation	03 (2+1)
BMS-714	Parasitology & Mycology	03 (2+1)

- 7) Noncredit course. Student may take additional elective course as a noncredit course with permission of HoD for acquisition of knowledge
- 8) 04 credit hours of Research will be carried out in third semester and 06 credit hours of Research will be carried out in fourth semesters

6. Master of Public Health

a. Introduction

MPH curriculum emphasizes on basic public health sciences, essential managerial and analytical skills including project planning and evaluation, epidemiological investigations, health systems analysis, reproductive and child health, environmental and occupational health, disease control and research. Practical consist of individual fieldwork, group fieldwork, field visits, individual assignments and class exercises in all semesters.

b. General Scheme of Studies of MPH Program

Degree Offered	MPH
Duration	2-3 Years
Total Credit Hours	40 Credit Hours
Core Course	24 Credit Hours
Electives Courses	08 Credit Hours
Practicum	02 Credit Hours
MPH Thesis Research	06 Credit Hours

c. Semester wise Breakdown of Courses

Semester-I (Total Credit Hours: 12)

Code	Core Courses	Credit Hours
MPH-711	Social and Behavioral Aspects of Public Health	3(2+1)
MPH-712	Basic Epidemiology and Biostatistics	3(2+1)
MPH-713	Environmental and Occupational Health	3(2+1)
MPH-714	Health Promotion, Advocacy & Social Mobilization	3(2+1)

Semester-II (Total Credit Hours: 12)

Code	Core Courses	Credit Hours
MPH-721	Health Systems	3(2+1)
MPH-722	Applied Epidemiology and Biostatistics	3(2+1)
MPH-723	Communicable & non communicable disease control	3(2+1)
MPH-724	Research Methods: Quantitative and Qualitative	3(2+1)

Semester-III (Total Credit Hours: 8)

Code	Core Courses: 02 CHs Elective Courses: 06 CHs Select any 02 courses from 732, 733 and 734	Credit Hours
MPH-731	Demography and Population Dynamics	2 (1+1)
MPH-732	Project Management	3 (2+1)
MPH-733	Health Policy, Planning and Management	3 (2+1)
MPH-734	Maternal & Child Health	3 (2+1)

Semester-IV (Total Credit Hours: 8)

Code	Core Courses: 2	Credit Hours
MPH- 741	Practicum	2
MPH -799	Research	6

7. MSc Healthcare Administration**a. Introduction**

Effective management in health care is the key to success for implementing programs in health sector. The significance of MSc Healthcare Administration is much higher in the 21st century compared to the previous years. MSc Healthcare Administration will be a two years' program designed to give in-depth education in managing healthcare problems as well. The instructional and training components will be carried out by the qualified faculty of health management at Armed Forces Post Graduate Medical Institute (AFPGMI) Rawalpindi. The award of the course will require evidence of satisfactory completion of course and research. All students will be assessed during the course and through end semester examinations as per HEC grading system/ policy

b. General Scheme of Studies

1.	Course Duration	24 Months
2.	Semester Duration	16 Weeks
3.	Semesters	4

4.	Course load per Semester	12 Credit hours
5.	Course Work	24 Credit hours
6.	Practicum + Seminar	03+03 (06) Credit hours
7.	Research	06 Credit hours
8.	Total Credit Hours	36 Credit hours

c. Semester wise Breakdown of Courses

FIRST SEMESTER			
(Management Sciences)			
Ser	Code	Subjects	Credit Hours
1.	HLA -711	Human Resource Management & Leadership	3 (2+1)
2.	HLA -712	Health Economics and Financial Management	3 (2+1)
3.	HLA -713	Supply Chain Management	2 (1+1)
4.	HLA -714	Project Management	2 (1+1)
5.	HLA -715	Health System Management	2 (1+1)
Total			12
SECOND SEMESTER			
(Public Health, Health Policy and Planning)			
Ser	Code	Subjects	Credit Hours
1.	HLA -721	Health Policy, Planning & Promotion	3 (2+1)
2.	HLA -722	Hospital Management, Planning & Designing	3 (2+1)
3.	HLA -723	Epidemiology and Occupational Health	2 (1+1)
4.	HLA -724	Quality Assurance in Healthcare	2 (1+1)
5.	HLA -725	Research Methodology and Biostatistics	2 (1+1)
Total			12
THIRD SEMESTER			
Ser	Code	Subjects	Credit Hours
1.	HLA -731	Seminar	3
2.	HLA -732	Practicum	3
Total			06
FOURTH SEMESTER			
Ser	Code	Subjects	Credit Hours
1.	HLA -799	Research	6
Total			06
G. Total			36

8. MSc in Cardiac Anaesthesia

a. Introduction

This programme is offered by the National University of Medical Sciences (NUMS), Islamabad. The two-years training will be done at the Department of Cardiac Anaesthesia & Intensive Care of the Armed Forces Institute of Cardiology & National Institute of Heart Diseases (AFIC-NIHD). The Focus of the MSc Cardiac Anesthesia program is to provide a nurturing environment to acquire the knowledge and develop the technical skills necessary to provide superb clinical care and cultivate high quality research.

b. Duration of Program & Scheme of study

MSc in Cardiac Anaesthesia is 24 months' program consisting of core courses and clinical training in the wards. There will be 4 regular semesters of 16 weeks' duration and 38 credit hours have to be completed. Successful MSc completion will require a minimum CGPA of 2.50

1	Degree Offered	MSc in Cardiac Anaesthesia
2	Duration	24 months
3	Total semesters	04
4	Course load per semester	09-12 hrs
5	Core courses	24 hrs
6	Elective courses	06 hrs
8	Research	06 hrs
9	Total Credit Hours	36 Hrs

c. Semester wise Distribution of Credit Hours

	Programs	MPH/MSc
Semesters	Course Work	Credit Hours
1 st Semester	Core Courses	12 CH
2 nd Semester	Core Courses	12 CH
Summer Semester	Improvement/Deficient courses	-
3 rd Semester	Core Courses/ Elective Courses	06 CH
4 th Semester	Research (with or without thesis)	06 CH
	Total	36 CH

d. Semester-Wise break-up of Courses of Credit hours

First Semester

Core Courses: 12 Credit Hrs (one course X 3 Credit Hrs)

Code	Subject	CHs
MCA-711	Applied Cardiovascular Sciences	03 (3+0)

MCA-712	Cardiac Investigations & Pre-operative Evaluation	03 (1+2)
MCA-713	Monitoring in Cardiac Anaesthesia	03 (1+2)
MCA-714	Principles of Cardiopulmonary Bypass	03 (1+2)

Second Semester

Core Courses: 12 Credit Hrs (one course X 3 Credit Hrs)

Code	Subject	CHs
MCA-721	Practical Conduct of Adult Cardiac Anaesthesia	03 (1+2)
MCA-722	Management of Coronary Heart Surgery	03 (1+2)
MCA-723	Management of Valvular Heart Surgery	03 (1+2)
RMS-724	Research Methodology & Biostatistics	03 (1+2)

Third Semester

Core Courses: 06 Credit Hrs (one course X 3 Credit Hrs)
(Select any two of the following)

Code	Subject	CHs
MCA-701	Cardiac Surgical ICU	03 (1+2)
MCA-702	Basics of Paediatric Cardiac Anaesthesia	03 (1+2)
MCA-703	Paediatric Cardiac ICU	03 (1+2)

Fourth Semester

Credit Hours=08 (Research: 06)

Code	Subject	CHs
MCA-799	Research Work	06

9. POSTGRADUATE DIPLOMA

a. Aim

The aim of this program is to train medical graduates with professional skills in the clinical fields so that they can apply their acquired expertise at health care system.

b. General Scheme of Studies of Diploma Program.

Semester Duration	18 weeks
Course Duration	2 Year
Number of Regular Semesters	04
Course Load per Semester	09-12 Credit Hours
Core Courses	30 Credit Hours
Internship/ Research	06 Credit Hours

c. The semester-wise distribution of credit hours is given below:

Semesters	Course Work	2 Years
1 st Semester	Core Courses	12 CH
Summer Semester	Deficient Courses	
2 nd Semester	Core Courses	12 CH
3 rd Semester	Core Courses/ Internship/ Research	08 CH
4 th Semester	Internship/ Research	04 CH
	Total	36 Hs

d. Log Book.

Proper log books of clinical procedures and cases along with written reflections by all students will be maintained with the help of Program Coordinator. The reflections written by the students will be commented and endorsed by the supervisors.

e. Scheme of study & Courses- (Semester wise Breakdown)

First Semester: Core Courses: 12 Credit Hours

S. No	Course Code	Course Title	Credit Hours
1.	DPC-711	Cardiac Anatomy/ Physiology	3 (3+0)
2.	DPC-712	Cardiac Pathology/ Pharmacology	3 (3+0)
3.	DPC-713	Introduction to Clinical Cardiology	3 (0+3)
4.	DPC-714	Cardiac Emergencies Management/ ACLS	3 (1+2)

Second Semester: Core Courses: 12 Credit Hours

S. No	Course Code	Course Title	Credit Hours
1	DPC-721	Diseases of Heart	3 (1+2)
2	DPC-722	Diseases of Circulating System	3 (1+2)
3	DPC-723	Pediatric Cardiology	3 (1+2)
4	RMS-724	Research Methodology and Biostatistics	3 (2+1)

Third Semester: Core Courses: 08 Credit Hours

S. No	Course Code	Course Title	Credit Hours
1	DPC-731	Investigative Cardiology	3 (1+2)
2	DPC-732	Cardiac Surgery	3 (1+2)
3	DPC-799-I	Research/ Internship	2

Fourth Semester: Elective Courses: 04 Credit Hours

S. No	Course Code	Course Title	Credit Hours
1	DPC-799-II	Research/ Internship	4

10. CERTIFICATE IN HEALTH PROFESSION EDUCATION

a. Duration of Program & Scheme of Studies.

Duration of Program is 6 months during which 2 x Contact Sessions of 5 days duration each will be held, one at the start and one at the end of program

b. Frequency.

Twice a Year

c. Description of Course & Scheme of Study.

The Course will be hybrid, with a face to face component and distance learning.

Each course will be of 06-week duration

Face to Face I	Weeks																								Face to Face II
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	6	1	2	3	4	5	6			
	Adult learning-Theory and Application					Curriculum Planning & Evaluation					Evidence-based Teaching and Learning						Assessment for Learning								

d. Overview of Learning and Instruction.

1) Two face to face sessions of a 5 days each, one at the start and one at the end of program

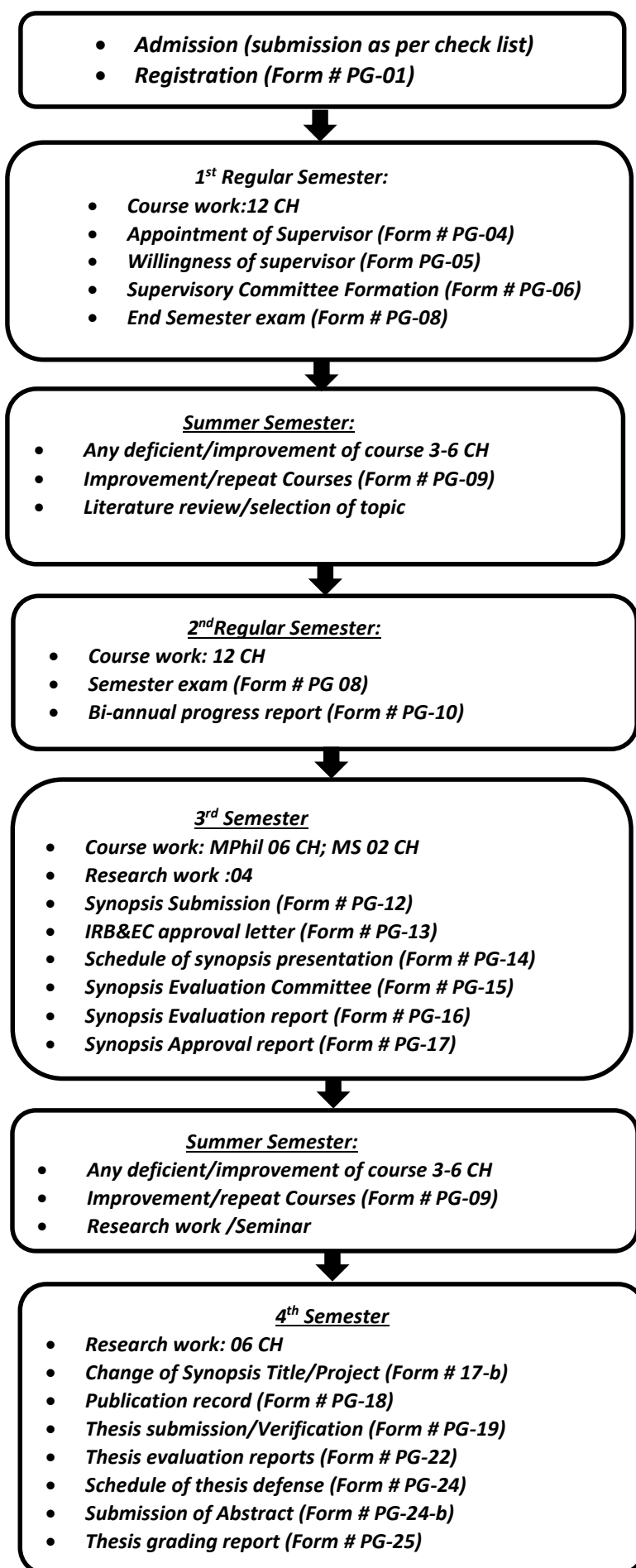
2) Distance Learning

Distance learning will be spaced between the two face to face sessions, Moodle software, customized for the program, will be used by students and faculty for access to learning materials, discussion and assessment of each course.

e. Award of Certificate.

Certificate will be awarded upon successful completion of course work of 12 Credit Hours with CGPA ≥ 2.50

Master Programs Road Map



CHAPTER VI

ASSESSMENTS & EXAMINATIONS

End Semester (Regular) Examinations take place in December and May and for summer semester in August every year. If any of the courses are assessed by examination, timetables detailing the time and venue of exams shall be made available to the students in time by the respective institute

1. Conduct of Assessment/ Examinations.

- a. The Head of Department will be responsible for the overall fair assessment of each student during a semester. The performance of each student in a course will be assessed periodically throughout the semester to check as to how well the students learning objectives are being achieved and how effectively are the teaching standards being maintained. The concerned course instructor will be responsible for the sessional, mid-semester examination and assessment of assignments during a semester.
- b. Whenever a student misses mid-semester examination/ sessional test due to reasons acceptable to the Departmental Examination Committee, provided his attendance is not less than 75%, make up test may be arranged within the 04 weeks.

2. Final End-semester Examinations and Weightage.

- a. The end-semester examination will be conducted by the Examination Directorate. The final examination will be taken during the last week of each semester. Table of specifications of each course will be prepared by the concerned faculty. The assessment and grading of student will be done as per NUMS Policy.
- b. The elective course grading may be left to the discretion of the course instructor. HOD will be responsible for sending the result of elective course assessment within two weeks of examination to Academics Directorate.
- c. Final end-semester examination of each course will be of one-and-a-half-hour duration. Each student will be examined/ evaluated by the internal and external examiners appointed by the University. The HOD and Institutional Deputy Controller of Examinations will supervise and oversee the conduct of examination in the departments. Written paper will be according to the table of specifications approved by respective FBS. Oral, practical/ clinical courses examination will be of one-hour duration.
- d. Whenever a student misses End Semester Examination due to reasons acceptable to the Faculty Board of Studies provided his/ her attendance is not less than 75%, he/ she can appear in the courses whenever offered.
- e. For repetition/ improvement of course, request will be sent through concerned Dean to Controller of Examinations on the prescribed form (PG-09).
- f. The semester-based programs assessment weightage may vary in different postgraduate academic programs as determined by the FBS. However,

general guidelines for final assessment of a course are given below:

Nature of Examination	Weightage	Marks	Assessment Tools	Paper Duration
Quizzes	05%	As per table of specifications approved by respective FBS		
Sessional examination	10%			
Mid-semester examinations	25%			
Assignments/presentations/practicals/ OSCE/ OSPE	20%			
Final end-semester examination	40%			
Total	100%			

NOTE: OSCE/ OSPE Stations will be prepared by the concerned College/ Institute.

3. Supplementary/Special Examination.

There will be no supplementary/special examination in a semester system and if a student fails in a course, he is required to repeat it.

4. Fractionalized Grading Policy.

The student's final assessment will be done by Grade Point Average (GPA). For calculation of GPA, absolute grading on the scale of 4.00 points shall be used.

S.No	Percentage obtained in a Semester System	Grade Points	Grade
1	85 & above	4.00	A
2	84	3.93	A-
3	83	3.86	
4	82	3.80	
5	81	3.73	
6	80	3.66	
7	79	3.60	B+
8	78	3.52	
9	77	3.46	
10	76	3.40	
11	75	3.33	
12	74	3.24	B
13	73	3.16	
14	72	3.08	
15	71	3.00	
16	70	2.88	B-
17	69	2.77	
18	68	2.66	
19	67	2.58	C+
20	66	2.50	
21	65	2.42	
22	64	2.33	

23	63	2.22	C
24	62	2.11	
25	61	2.00	
26	60	1.88	C-
27	59	1.77	
28	58	1.70	
29	Below 58	0.00	F

5. Computation of GPA/CGPA.

GPA is a figure ranging preferably from 0.00 to 4.00 used to indicate the performance of a student in the semester. It is calculated as follows:

Semester Grade Point Average (GPA) = $\frac{\text{Sum over all courses in a semester (course credit hours x grade point earned)}}{\text{Total Semester Credit Hours}}$

Cumulative Grade Point Averages (CGPA) = $\frac{\text{Sum over all courses in all Semesters (courses credit hours x grade point earned)}}{\text{Total Semester Credit Hours}}$

6. Qualifying CGPA.

Minimum qualifying CGPAs for MPhil/ MSc/ MPH/ Diploma programs and PhD programs shall be 2.50 and 3.00 respectively.

7. Academic Deficiencies.

A student who obtains one or more of the following grades in the semester result shall be considered academically deficient:

- a. GPA less than 2.00 for all PG Programs.
- b. 'F' grade in any course, "F" grade is awarded on the basis of:
 - 1) Academic failure i.e. below 58% marks in the course.
 - 2) Attendance less than 75% in the subject.

The "F" grade so obtained shall only be cleared by repetition of the course whenever offered.

c. An incomplete "I" grade

"I" grade will be awarded by the faculty only in exceptional cases beyond the control of a student such as serious accidents, family tragedy, serious health ailments, etc. The grade will be approved by the concerned Dean provided his attendance is not less than 75%. The student will be given a grade after examination as per NUMS grading policy without prejudice to the previous grade "I". In case a student fails to make up the required score, he will be awarded an "F" grade.

8. Recommendations to Academically Deficient Students.

The Dean/ HOD will review the end-semester results of deficient students and recommend either probation, withdrawal or repetition of courses for improvement of CGPA. The main features and guidelines for these concepts are stated below:

a. Probation.

A student shall be placed on academic probation under the following

conditions:

- 1) Students acquiring less than 2.00/4.00 GPA in a semester but passing in all papers will be promoted on a condition to achieve more than 2.0 GPA in next semester and he will remain on probation for the next semester. If the student does not achieve the desired CGPA of more than 2.0, he will go to 2nd (last) probation
- 2) Students acquiring GPA 1.7 and above but failing in any paper(s) will be placed on probation and promoted to the next semester conditionally but they will have to be registered for summer semester to improve the grade
- 3) There will be maximum two academic probations in all NUMS programs.

b. Withdrawal.

A student is recommended for withdrawal under following circumstances/conditions:

- 1) On disciplinary grounds when recommended by the respective Discipline Committee of the College/ Institute.
- 2) Students acquiring GPA less than 1.70 in two consecutive semesters and failing in any paper(s) even after attending summer semester for one academic year will be dropped from university's rolls. However, he/ she will be eligible to seek re-admission if applied for in the next available admission season. Re-admission will be allowed only once on payment of full admission fee and the student will be considered as external candidate.
- 3) CGPA less than 2.50 for MPhil/ Master/ Diploma programs or 3.00 for PhD program after completion of the course work even after availing chance allowed under the provision.
- 4) PhD students if fails twice in the qualifying examination or fails to qualify coursework requirements in three years.
- 5) If a student has not completed his degree requirements within the maximum stipulated time.
- 6) A student who remains absent for more than 45 days without valid reasons but does not qualify for suspension of registration.
- 7) On consistent unsatisfactory academic performance when reported by the supervisor of the PhD students.
- 8) A student can seek withdrawal from any program at any stage of his degree on his own request duly recommended by supervisor and for PhD students by Supervisory Committee of the Institute/ College and take readmission within two years from the stage on which withdrawal was taken.
- 9) Students can withdraw from a particular course with the consent of the concerned dean. Students can withdraw from a maximum of 01 courses in one semester. This should be within one week of the announcement of mid-term or a maximum of ten weeks from the start of classes. There is no refund of fee.

c. Repeating Courses/ Improvement of CGPA.

- 1) If a student gets 'F' grade, he will be required to repeat the course or its recommended alternate, if any. However, "F" grade obtained earlier will also be recorded on the transcript.
- 2) A student having grade less than 2.5 for MPhil/ Master/ Diploma programs or less than 3.0 for PhD program can repeat the course twice if he desires to improve the grade.
- 3) A student may repeat up to three courses in any PG program. In such a case, both the course and the grade obtained will be recorded on the transcript, however, only the better grade shall be calculated in the CGPA. In case of CGPA improvement, it would be recorded with (Imp) on the transcript.

9. Indiscipline in Examination.

Any candidate found guilty of following matters, his/ her case will be submitted to Disciplinary Committee constituted by the University: -

- a. Any candidate who, after announcement made by Superintendent, fails to part with or is found to have in his/ her possession any kind of electronic device, books, notes, papers, bags, pencil cases, any other material or equipment related to the subject of examination of that paper or detected in giving or receiving assistance shall be expelled by the Superintendent from the Examination Centre and his/ her answer book shall be cancelled and case be reported to the Controller of Examinations.
- b. Any candidate found guilty of copying from any paper, books, notes, or allowing any other candidate to copy his/ her answer-book, shall be disqualified from appearing in examination for a period of one year.
- c. Any candidate found guilty of impersonation that is who impersonates a candidate and is on the rolls of an affiliated/ constituent College, shall be disqualified i.e. both candidate and impersonator for a period of five years.
- d. If the impersonator is not on the rolls of an affiliated/ constituent College, the Controller of Examinations shall register a case with the Police, and shall send intimation to this effect to the Vice Chancellor for cancellation of his/ her Degree.
- e. Any candidate found guilty of resorting to physical assault on the Supervisory Staff or University Officers or University Officials or any other person deputed in the Examination Centre or other candidates shall be disqualified permanently.
- f. Any candidate found guilty of possessing firearms, daggers, knives and other weapons, which may cause injury, shall be terminated from the respective institution after necessary inquiry by the University.
- g. Any candidate found guilty of instigating others to stage a walkout or resort to a pen-down strike shall be liable to expulsion by the Superintendent or the Controller of Examinations or any officer duly authorized by the Vice-Chancellor and shall be disqualified for a period up to three years to appear in any examination of the University.

- h. Any candidate found guilty of obtaining admission to the examination on false statement made on his/ her admission form shall be disqualified to appear in that examination.
- i. Any candidate found guilty of forging another person's signatures on his/ her application or Admission Form shall be disqualified for one year.
- j. The answer book of a candidate shall be cancelled if found guilty of disclosing his/her identity or making peculiar marks or using abusive or obscene language or making an appeal in his/ her answer book to the Examiner.
- k. Any candidate found guilty of influencing or attempting to influence, the Examiners or Supervisory Staff or the Controller of Examinations and other University Staff directly or through his/ her relatives or guardians or friends with the objective of gaining benefit in the examination shall be disqualified for that examination.
- l. Any candidate who refuses to obey the Centre Superintendent or changes his/ her seat with another candidate, or changes his/ her roll number shall be expelled from the Examination Centre and his/ her answer book shall be cancelled.
- m. Any candidate found guilty of cheating in the examination by way of depositing less fee and enhancing it through forgery on Bank receipt shall be debarred to appear in that Examination.
- n. No punishment shall be imposed, unless a student accused of using unfair means in an examination, has been given a reasonable opportunity of showing cause against the action proposed to be taken with respect to him.
- o. In case of an emergency, the Vice Chancellor may award suitable punishment without reference to the Committee, in commensuration with the gravity of offence, to any candidate or to any student on the rolls of an affiliated/ constituent college, who creates disturbance of any kind during an examination or otherwise misbehaves in or around any examination center.
- p. His/ her case shall result in penalties keeping in view the nature and intensity of offence.
 - 1) Cancellation of paper
 - 2) Suspension from program for one semester
 - 3) Heavy and light fine
 - 4) Expulsion forever from the University
 - 5) Any other
- q. Disciplinary Committee will decide that whether the student will appear in supplementary examination/ summer semester/ with regular semester for the cancelled paper or not
- r. If a student is not satisfied by the decision of the Committee, he/ she can submit his/ her appeal within 15 days after the decision of the Committee to the VC.

10. Medical Certificate.

Medical certificate from a registered medical practitioner duly endorsed by the University Medical Officer is acceptable for the Examination purposes in the University.

11. Permission of Writer for Special Students.

- a. A visually impaired student may be allowed to attempt the Mid/ Final Examinations of the University on Braille/ Computer/ any other means of facilitation.
- b. In case a student is physically handicapped/ visually impaired, he/ she may apply to the Chairperson of the respective department (with medical certificate as proof of her/ his disability) for permission to engage a writer in tests/ examinations of the University two weeks before the start of tests/ examinations. He/ she will be allowed 45 minutes (maximum) extra time to solve the question paper.
- c. The qualification of the person who acts as writer of a handicapped student must be at least one step lower than that of the student. (e.g. for level 6 student, the writer should be at the most of level 5)

CHAPTER VII

GUIDELINES FOR SYNOPSIS & THESIS WRITING

Synopsis writing

1. Introductory.

The aim of this compilation is to guide NUMS PhD, MPhil and Masters students in writing research proposal of reasonable quality. The Postgraduate Studies Office is always pleased to provide guidance and support for postgraduate students for completion and timely submission of their synopsis and thesis. Students are expected to be fully aware of their responsibilities to meet all deadlines, formatting requirements and paperwork needed to be done for the completion and submission of their synopsis/ thesis.

2. Synopsis Contents/ Structure.

A synopsis is an outline of the proposed research project to be conducted in the University for postgraduate studies. It highlights a clear research question and approaches to solve the problem, its originality and significance.

It should be concise, avoid repetitions and provide sufficient details to be accepted on academic merits. A synopsis should be constructed in a manner that facilitates the supervisory committee to assess the originality of the idea, background information, methodology, outcome and feasibility of the research project. It should be structured in the manner explained hereinafter.

3. Title Page.

The title page of a synopsis should include:

- a. title of the research project
- b. name of the student
- c. degree for which synopsis is being written (e.g. MSc, MPhil, PhD etc) name of discipline (e.g. pathology)
- d. name of the supervisor, department, institution, university and supervisory committee members along with their qualifications, designations & place of work

4. Title.

The title should be brief, specific and reflect the main objectives of study. It should neither be too short nor too long to exceed fifty words. Superfluous phrases or expressions such as 'an investigation into' must be avoided

5. Project Summary.

A project summary describes the proposed research giving a clear idea about the background information, research question and student's intent to explore the key issues. The student should summarize the major components of the research proposal including a background/ rationale of study, short statement of the problem, objectives/ hypothesis of the study, research design, methodology of data analysis and anticipated results and their significance.

6. Keywords.

This section is an alphabetically ordered list of the appropriate keywords up to 5-8 that would help to find out the recent literature on the relevant subject in a search engine. The words should be separated by semi-colon (;)

7. Introduction.

It gives the background of the project and the rationale for conducting the study. The introduction consists of well-written three paragraphs to efficiently and meaningfully set the context of the proposed research. The first paragraph introduces the main area of research and relevant background in the subject area in precise manner. The problem under study must be relevant to the community and national needs to improve the healthcare system. The second paragraph introduces the project by describing the specific gap in the present knowledge or existing problem in the basic biomedical field/ healthcare system particularly in Pakistan. It should further describe critical analysis of the problem being studied in precise and clear terms based on the review of recent scientific literature. It is important that in this paragraph, the research question for which the proposed investigation aims to find an answer is explicitly formulated. The third which is the final paragraph should highlight the proposed objectives and justification for the conduct of the study. An explanation of its significance should be used as an opportunity to demonstrate that research has not been conducted/ performed before and that the proposed project will really add something new to the existing scientific literature

8. Objectives of the Study.

All research projects should have 'SMART' objectives (Specific, Measureable, Achievable, Relevant and Time-bound). They must be consistent with the problem and identify the variables involved in the research. The objectives should be clearly stated and logically presented. Students are advised to resist any temptation to put too many objectives or over-ambitious objectives that cannot be adequately achieved under the protocol. Objectives are written in 'action verbs' 1. to determine 2. to compare.... etc. After statement of the primary objective, secondary objectives may be mentioned.

9. Hypothesis.

The researchers formulate a hypothesis as an expectation concerning the relationship between the variables in the research project. Generally, there are two types of hypotheses, null and alternate. The null hypothesis: where the researcher makes a statement of no difference from an expected outcome. In the alternate hypothesis: the researcher makes a statement that a true difference does exist between expected and obtained outcomes. However, it must be kept in mind that descriptive studies do not carry or involve any hypothesis.

10. Significance/ Impact/ Benefits of Study.

It emphasizes on the significance/ importance of the research work/ study; vital contribution of the results of the study and who will benefit from it. Convince the reviewers that the proposed research will make a significant and substantial contribution to increase the knowledge in the particular subject/area /literature.

It should be possible in most cases to predict the specific and general benefits for people and policy-maker on completion of the proposed research.

11. Review of Literature/ Justification for The Research Problem.

Review of literature in a synopsis helps the reviewer in assessing the knowledge of the researcher. It familiarizes the reviewers to the problem under study and the work done by other researchers at local or international level on similar subjects. A comprehensive and upto-date literature review clearly highlights the existing gaps. It assists in identifying various variables in the research project and conceptualizes their relationship. Research methodology of the researcher can be structured and modified after reviewing the literature. It helps the researcher to understand the difficulties faced by others and the corrective steps taken or modifications made by them. The reviewer can assess the work put in by the researcher, assists in the feasibility and justification of the proposed research project to address the national needs. Use of very old references (more than 5 years old) when adding information from literature should be avoided. References must be properly cited in all paragraphs using author/ year format.

12. Research Methodology (plan).

Student should specify what research methodology is chosen to conduct the study and justify the specific approach selected to substantiate the proposed research project. This section should also include the following:

- a) **Setting:** State the place where research work will be undertaken and data will be collected. This may be a hospital and / or its department(s)/ labs or the community or both.
- b) **Study Design:** Mention the name of the appropriate study design which should preferably relate to objectives (qualitative or quantitative research). A single study design or a combination can be selected e.g. cross-sectional study or survey; observational analytical designs; prospective study; experimental designs or clinical or field trials.
- c) **Sample Size:** The sample size should be adequate to apply all relevant tests of statistical significance and has appropriate power. The sample size depends on the study design. The sample size must be justified scientifically as how it was calculated. The parameters used for sample size calculations must be clearly mentioned and referenced.
- d) **Sampling Technique:** The study population can be healthy people, patients or recipients of certain treatment, animal or medical device. There are many methods for sampling like simple random, systemic and stratified sampling, cluster sampling, etc. The sample should be representative of the population and should be reliable. This minimizes sampling errors. Type of sampling employed for each category of subjects under study should be mentioned.
 - i. **Inclusion criteria**, on what bases will the study subject be inducted in the study? Background variables which are considered for inclusion must be stated. In case of special circumstances, the criteria must clearly state the inclusion strategy.
 - ii. **Exclusion criteria**, on what bases will the study subject be excluded from

the study? How the variables mentioned in exclusion criteria are detected? Exclusion must also be justified as what pushed the researcher to exclude a particular subject from the study.

13. Ethical Approval.

Wherever necessary, Ethical Committee's approval from the institute must be obtained and attached with the synopsis. Ethical approval is required in all human and animal studies. Consent as approved by Institutional Review Board should invariably be used.

14. Analytical Methods/ Data Collection Procedure.

Complete details of data collection procedure should be mentioned. The researcher will have to describe the method of data collection, which may be in the form of a questionnaire(s), interviews, screening procedures, medical examination, laboratory investigations/ experiments/ instruments and quality control to get reliable and valid data. Clinical trials should have the proprietary names, chemical composition, dose and frequency of administration of drugs in the trial protocol.

15. Data/ Statistical Analysis.

Data analysis is an important part of a research project and must mention the statistical package use for data analysis like SPSS. A good analysis leads to good results. The plans for data analysis should be mentioned as follows:

- Type of variables along with analysis plan must be mentioned.
- Type of statistical test in case of analytical studies, corresponding to type of comparing variables, correlation, regression, ANOVA must be mentioned.
- Level of significance for rejecting the null hypothesis must be mentioned (less than 0.05 is significant).
- Computer program/ software used and data sorting method must be mentioned.

16. Collaborating Organizations.

The researchers are encouraged to collaborate with partner(s) within and outside Pakistan. In this regard, the researcher is required to identify complementarity and/ or justify the need for collaboration, clearly identify the part(s) of research that will be carried out in the collaborator's laboratory and include a letter from collaborating partner/ agency expressing willingness to collaborate.

17. Facilities and Budget.

The details of facilities (equipment available for the research project in the host university/ institution and budget estimate for proposed project should be reported as under:

Description	% of time devoted to Project	Year 1	Year 2	Amount (in million Rs.)
Equipment				
Subtotal:				

Reagents/kits				
Subtotal:				
Subtotal:				
Subtotal:				

18. Duration/ Timeline.

The expected duration of research study and why this duration is required (number of patients, hospital tests, data collection and analysis, report writing, etc.). A detailed timetable (Gantt chart) of students' activities on a weekly or monthly basis, outlining targets that he expects to achieve per week or month for the entire duration of the study.

19. References:

References are given in Harvard style i.e. body of the text and take the form of the author's surname followed by the date of the publication, all within parentheses, e.g., (Johnston, 1917). Detail is given in the Appendix E.

20. Official documents required:

All applicants are required to fill in the following forms as related to their study. Blank forms can be downloaded from NUMS' website. e.g. ***synopsis format and forms, etc.***

- i. Covering letter (subject: consideration of synopsis)
- ii. Ethical Approval letter from the concerned Institution Review Board (IRB)
- iii. Informed consent form Consent form taken must also be attached
- iv. Plagiarism report

21. Format of Synopsis.

- a. **Language:** English.
- b. **Text:** should be in a single column and black in color.
- c. **Page size:** Page size should be A4.
- d. **Margins:** The left margin should measure 1.5 inches. The right, bottom and top margins should each measure 1 inch.
- e. **Line spacing:** Line spacing, of all text, including bibliographic references,

should be 1.5. Figures, tables and their captions should be single-spaced. Line spacing should be 6 points (before and after) between the paragraphs.

- f. **Font style:** Times New Roman font style should be used.
- g. **Font size:** should be 12 points in main body text. For figures, tables, captions and charts, a font size of 10 points is to be used.
- h. **Headings and sub-headings:** Headings should appear at center of the page, all in capitals, bold 14-point font, sub-headings should be left aligned, all in capitals, bold and 12-point font.
- i. **Page numbering:** Page numbers should be placed at the center bottom of the page. Page numbers must be in the same font and font size as your text. Except for the title page, page numbers must be placed on each page of the synopsis. All pages of the synopsis should be numbered consecutively in Arabic numerals (1, 2, 3...).

SYNOPSIS

Title:

Dr.

PhD Trainee in -----

(Registration No. -----)



Academic Supervisor

Department of -----

Institute -----

National University of Medical Sciences, Rawalpindi



Title of Research Project:	
Synopsis submitted for: <input type="checkbox"/> Master <input type="checkbox"/> MPhil <input type="checkbox"/> PhD	Discipline: Pathology (Chemical Pathology)
Name of the Applicant: Dr. -----	Qualifications (list all; with date)
Date of Enrollment: _____	Registration No. _____
<u>Supervisor</u> Signature: _____ Name: _____ Qualification: _____ Designation: _____	
Address: Department of Chemical Pathology & Endocrinology, AFIP/AFPGMI Rawalpindi.	
Phone No: 03-----.....	Email: @yahoo.com
Head of Department Signature: _____ Name: _____	

References

References are given in Harvard style i.e. body of the text and take the form of the author's surname followed by the date of the publication, all within parentheses, e.g., (Johnston, 1917).

References book. The standard reference format for a book is: author(s) or editor(s) surname (s)/ and the initial(s) of their first name(s), year of publication, title of book (italicised), book edition (where the book is beyond the 1st edition), place of publication, publisher, page numbers you have taken information from (in case of a direct quote or a diagram, picture, etc.). Examples are given below:

Material Type	In-text Example	Reference List Example
Book: Single author	Costanzo (2006) wrote that...	Costanzo L. (2006). <i>Physiology</i> , Philadelphia: Saunders Elsevier.
Book: 2 authors	(Pears & Shields, 2008).	Pears, R. & Shields, G. (2008). <i>Cite them right: The essential referencing guide</i> , 3 rd ed. New York: Springer Publishing Co.
Book: more than 2 authors	(Simon et al., 1996).	Simon, L.S., Lipman, A.G. and Jacox, A.K. (2002). <i>Pain in Osteoarthritis, Rheumatoid Arthritis and Juvenile Chronic Arthritis</i> , 2 nd ed. Glenview, IL: American Pain Society.
Book: no author	Black's medical (1979).	<i>Black's medical dictionary</i> , (1979). 32 nd ed. London: A. & C. Black.
Book: editor	(Galanter, 2001).	Galanter, M. (ed.) (2001). <i>Services Research in the Era of Managed Care</i> , New York: Kluwer Academic/Plenum.
Book: 2 or more editors	(Patrick & Scambler, 1986).	Patrick, D. & Scambler, G. (eds.) 1986. <i>Sociology as applied to medicine</i> , London: Balliere Tindall.
Book: chapter or article in an edited book	Bergeron and Lowe (2003) stated that...	Bergeron, C. and Lowe, J. (2003). Frontotemporal degeneration: introduction. In: Dickson, D.W. (ed.) <i>Neurodegeneration: The Molecular Pathology of Dementia and Movement Disorders</i> , Switzerland: Neuropath Press, pp.342-348.
eBook	Veletsianos (2010)	Veletsianos, G. (2010). <i>Emerging technologies in medical education</i> , London: Routledge. Retrieved

	stated that. ..	from: eBrary database. [Accessed 29 September 2015].
eBook: chapter in an eBook	(Resnick, 2001).	Resnick, N.M. (2001). Geriatric medicine. In: Braunwald, E., A.S. and Isselbacher, K.J. (eds.) <i>Harrison's Online</i> . Based on: Braunwald, E., Hauser, S.L., Fauci, A.S., Kasper, D.L., Longon, D.L. and Jameson, J.L. (eds.) <i>Harrison's Principles of Internal Medicine</i> . New York: McGraw-Hill. Retrieved from: http://www.hslls.pitt.edu/resources/documentation/harrisonsinfo.html . [Accessed 6 December 2015].

References from journals' articles. use last name followed by authors' first name initials. Write the year of publication (in parentheses), title of article, name of journal (in italics, capitalise the first letter of each word). Mention volume of journal and issue (in parentheses). Write pages of articles at the end with hyphen in between the first and last page of article. Examples are as under:

Material Type	In-Text Example	Reference List Example
Journal article: print	(Henderson, 2005) (Arrami & Garner, 2008) (Nowotny et al., 2015)	Henderson, J. (2005). Google Scholar: A source for clinicians? <i>Canadian Medical Association Journal</i> , 172 (12) 1549-1550. Arrami, M. & Garner, H. (2008). A tale of two citations. <i>Nature</i> , 451 (7177) 397-399. Nowotny, K., Jung, T. and Grune, T. (2015). Advanced glycation end products and oxidative stress in type 2 diabetes mellitus. <i>Biomolecules</i> , 5 (1) 194-222.
Journal article: electronic database	(Castell, 2008)	Castell, F. (2008). Professionalism in nursing practice. <i>Nursing Journal</i> , 12(9) 13-17. Retrieved from CINAHL. [Accessed 13 October 2015].
Journal article: online only journal (volume & issue number available)	(Koopman, 2001)	Koopman, W. J. (2001). Prospects for autoimmune disease: Research advances in rheumatoid arthritis. <i>JAMA: Journal of the American Medical Association</i> , 285(5) 648-650. Retrieved from: http://jama.ama-assn.org/ [Accessed 13 October 2015].

Journal article: Digital Object Identifier (DOI)	(Strachan et al., 2008)	Strachan, M.W., Price, J.F. & Frier, B.M. (2008). Diabetes, cognitive impairment, and dementia. <i>BMJ</i> , 336 (7634) 6. doi: 10.1136/bmj. [Accessed 10 November 2016].
Website	World Health Organisation, (2010)	World Health Organisation. (2010). Tuberculosis. http://www.who.int/mediacentre/factsheets/fs104/en/ [Accessed 14 February 2012].
Dissertations and Theses	(Khan, 2016)	Khan, N.A. (2016). <i>Mechanisms of Antibiotic Resistance</i> . PhD thesis, National University of Medical Sciences.
Conference proceedings/abstracts		Khuri, F.R., Lee, J.J. and Lippman, S.M. (2003). Effects on head and neck cancer tumors. In: Proceedings from the American Society of Clinical Oncology; May 30-31; Chicago, IL. Abstract 359.

THESIS GUIDELINES

1. General Guidelines.

The objective of a thesis is to produce quality research work which should be creative and innovative. The guidelines given hereinafter for preparation of MPhil thesis and PhD dissertation of reasonable quality which are binding on all NUMS' enrolled postgraduate students. Thesis/ dissertation is a product of your hard work and original research which will become a part of records in several libraries (Department, University/ Institute, HEC etc.).

2. Format of Thesis/ Dissertation.

a) **Language:** English

b) **Word Count**

i. PhD - Minimum 35000 words.

ii. MPhil/ Masters - Minimum 20000 words

iii. Bibliography, appendices, acknowledgements page, table of contents and title page will not be included in the overall word count.

c) The word count must be followed. If you need to go over the word count for any reason, then you must get the permission of your supervisor and this should be forwarded to the PG Office for information

d) **Text:** should be in a single column and black in color

e) **Page Size:** Page size should be A4 to be used as guided below:

i. **Margins:** The left margin should measure 1.5 inches and the right, bottom and

top margins should each measure 1 inch.

- ii. **Line Spacing:** Line spacing of all text including bibliographic references, should be 1.5. Long quotations, headings and captions should be single-spaced. Multi-lined subdivision headings, figures and table captions, footnotes and endnotes should all be single-spaced. Line spacing should be 6 points (before and after) between the paragraphs.
- iii. **Font Style and Size:** 'Times New Roman' font style should be used. All text, page numbers, table numbers, figure numbers, captions, references, and footnotes must be in Times New Roman style. Font size should be 12 points in main body text and type on one side of the page. For figures, tables, captions, charts, graphs and footnotes, a font size of 10 points is to be used.
- iv. **Major headings and sub-headings:**
 - 1) **Major headings:** Chapter titles are considered major headings. A major heading should appear at the center of the page, all in capitals, bold 16 points font, preceded by 'Chapter number'. Begin new chapters on a fresh page.
 - 2) **Sub-headings**
 - **First-order sub-heading:** First-order sub-headings should be left aligned, bold and 14 points font. A mix of upper and lower case letters are used.
 - **Second and third-order sub-headings:** Second and third order sub-headings should be left aligned, bold and 12 points font. A mix of upper and lower case letters are used.

3. Figures/ Tables/ Charts and Graphs.

Figures, tables, charts and graphs may be presented horizontally or vertically and must fit within the required margins. They should be placed adjacent to the related text (i.e., usually either on the same page or the page immediately following). Labels or symbols are preferred rather than colors for identifying lines on a graph. Colored graphs and pictures can be used as per need. Tables and figures should be numbered consecutively within individual chapters; one sequence for tables (e.g., Table 1.1; Table 1.2; etc.), and a separate sequence for figures (e.g., Figure 1.1; Figure 1.2; etc.). Captions must be as concise as possible. Numbers and captions should appear at the bottom of the figure and top of the table. Single-space line spacing is used for tables, figures and captions. Refer to figures/ tables within the main text as table 1.2, figure 2.3, etc. The top of tables/ figures should align to the left of the page.

4. Page Numbering.

Page numbers should be placed at the center bottom of the page. Page numbers must be in the same font and font size as your text. Except for the title page and cover pages, page numbers must be placed on each page of the thesis. Page numbers for the preliminary pages (e.g. dedications, abstract, acknowledgements, tables of contents, abbreviations and preface) should be numbered consecutively in lower case Roman numerals (i, ii, iii...). All pages starting from introduction to the end of the thesis should be numbered consecutively in Arabic numerals (1, 2, 3...).

5. Binding/ Submission Procedure.

- a. **Electronic format:** All students need to submit an electronic version (PDF) of their thesis or dissertation to the office of the Postgraduate Studies in NUMS' Secretariat. Electronic versions will be checked for structure/ format. They will also be checked with 'Turnitin' for plagiarism before approval.
- b. **Binding of soft bound thesis:** The students will prepare soft bound copies (either spiral or gum-bound) of their thesis for examination. Copies must be printed on one side of white, acid-free A4 paper. All PhD/ MPhil/ Master enrolled students need to make 5 soft bound copies (1 for the University, 1 Supervisor and 3 for Internal /External examiners). The copies must be submitted to the postgraduate studies office of NUMS as aforesaid alongwith the submission form.
- c. **Binding of hard bound thesis:** Five permanent/hard bound copies of thesis will be submitted after successful defense of the thesis (1 for University library, 1 for Exam Branch, 1 for the supervisor, 1 student own copy and 1 for HEC).
- d. **Front cover should bear:** Full title of the thesis, name of the candidate and the name of the Institute/ Department/ Centre/ College through which submitted, in the same order from top to bottom. The lettering may be in boldface and properly spaced. Their font sizes should be: title 24 points, name of the candidate 18 points and the name of the department/ institute/ college/ university 18 points.
- e. **Spine of the thesis** should show 'M. Phil / PhD thesis' on top across the width of spine, name of the candidate in the middle and the year of submission across the width at the bottom.
- f. **The color of binding:** The colour of hard bound cover shall be dark brown.
- g. **Published work:** Published work from the thesis has to be included as appendix (reprints/ proof/ preprint).

6. Structure of Thesis/ Dissertation.

The main structure of thesis/ dissertation should contain the following:

- a. Title Page
- b. Approval Certificate
- c. Dedication (optional)
- d. Abstract
- e. Acknowledgements (optional)
- f. Table of Contents
- g. List of Tables
- h. List of Figures
- i. List of Abbreviations
- j. Introduction
- k. Literature Review
- l. Materials and methods

- m. Results/ findings
- n. Discussion
- o. Conclusions
- p. References (Harvard style)
- q. Appendices

Title Page (Font 20, Regular)

Topic:



By

Dr. _____

(Registration No. _____)

Department of -----

Institute -----

National University of Medical Sciences, Rawalpindi Month
Year

Thesis 2nd Page (Font 20, Regular)

Topic: _____

By

Dr. _____

(Registration No. _____)

A thesis submitted in partial fulfillment of the requirement for the degree of

Master of Philosophy

In

Chemical Pathology

Academic Supervisor

Department of -----

Institute -----

National University of Medical Sciences, Rawalpindi

APPROVAL CERTIFICATE

It is hereby certified that the thesis titled 'Effects of Delta-tocotrienol Supplementation in Nonalcoholic Fatty Liver Disease' submitted by Dr. _____ is accepted in its present form, by the Department of Chemical Pathology & Endocrinology, Armed Forces Institute of Pathology, National University of Medical Sciences, Rawalpindi. The thesis is satisfactory and fulfills the requirements for the award of degree of Master of Philosophy in Chemical Pathology.

1. Supervisor _____

2. Internal Examiner _____

3. External Examiner _____

4. External Examiner _____

Date: _____

DEDICATION (Optional)

To my amazing (children/ siblings, etc.), (names), wise beyond their years

and

To my beloved (family/ parents, husband, etc.) (name, infinitely supportive)

(You can always choose your own wordings this is only a format to be followed for uniformity of all thesis/ dissertation under NUMS).

Begin printing page numbers here, using lower case Roman numerals and continue consecutive Roman numeral numbering throughout the preliminary pages.

ABSTRACT

An abstract is a short summary of a longer work. The abstract concisely reports the aims and outcomes of your research so that readers know exactly about the research. The abstract should be structured and consists of introduction, objectives, methods including study design, sampling, data collection, major results and the conclusions. The final sentences explain the major implications of the work. The abstract should be single spaced. The abstract page is not numbered. Abstracts should not have any citations. A good abstract is concise, readable and quantitative. Length should be limited to a maximum of 1-2 pages.

ACKNOWLEDGEMENT

In the name of Allah, the most Gracious, the most Merciful.

I am extremely thankful to Almighty 'Allah' Who is the entire source of knowledge and wisdom endowed to mankind, for providing me with the acumen and vision to complete this endeavor.

I would like to express my profound gratitude to my supervisor (name) for his wise counsel and encouraging attitude towards this study. I am extremely grateful to him for immensely facilitating me during my study period by ensuring the provision of favorable circumstances and conducive environment. This project would not have been possible without his support and expert guidance.

In the end, I would like to extend my deepest gratitude to my family members. Without their encouragement, I would not have been able to complete this endeavor. (You can always choose your own wordings; this is only a format/ sample to be followed for uniformity of all thesis/ dissertation under NUMS)

Dr. _____

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ACC	Acyl CoA-Carboxylase
AFIP	Armed Forces Institute of Pathology
AGEs	Advanced Glycation End Products
BMI	Body Mass Index
DNL	de novo hepatic lipogenesis
ETC	Electron Transport Chain
FDA	Food and Drug Administration

(Centered, 16 Bold, Upper-case, all Major Headings)

CHAPTER-1 INTRODUCTION (Centered, 16 Bold)

1.1 Objectives (left aligned, 14 bold)

Main body text (Justified, 12 points)

1.2 Hypothesis (left aligned, 14 bold)

CHAPTER-2 REVIEW OF LITERATURE (Centered, 16 Bold)

2.1 Prevalence

2.1.1 Pathogenesis (left aligned, 14 bold)

2.1.1.1 Evolution of Hypotheses (left aligned, 12 bold)

CHAPTER-3 MATERIAL AND METHODS (Centered, 16 Bold)

3.1 Setting (Left aligned, 14 bold)

3.2 Study design (Left aligned, 14 bold)

CHAPTER-4 RESULTS (Centered, 16 Bold)

4.1 Demographic and Baseline Characteristics (Left aligned, 14 Bold)

4.2 Results-----

CHAPTER-5 DISCUSSION (Centered, 16 Bold)

5.1 Discussion

5.2 Conclusions (Left aligned, 14 Bold)

5.3 Future Study (Left aligned, 14 Bold)

References: References are given in Harvard style i.e. body of the text and take the form of the author's surname followed by the date of the publication, all within parentheses, e.g., (Johnston, 1917). Detail is given in the Appendix E.

CHAPTER VIII

STUDENTS AFFAIRS

1. Attendance.

Every postgraduate student will be required to attend at least 75% of the lectures, seminars, practical and clinical classes of each subject in each class failing which his name will not be forwarded to the Controller of Examinations for the purpose of appearing in the concerned examination

2. Leave.

For more than three days, a student may directly or through his/her parents or guardian send a written application to the Head of the Institution reporting cause of absence. Sick leave will be granted only on production of a medical certificate from an authorized medical officer appointed by the Head of the Institution. In all cases leave taken will be at the student's own risk so far as the percentage of attendance is concerned and even the medical certificate will not condone a deficiency in attendance. A student, who is absent without leave continuously for a period of four weeks, will be struck off the university roll.

3. Correspondence.

The students are forbidden to address any member or person in authority directly. Joint applications are entirely prohibited and will not receive attention. Any student wishing to make a representation on any subject has the right of direct access to the head of the institution during the college hours.

4. Etiquettes and Conduct Norms.

- a. Students are expected to extend highest level of courtesy and respect towards their teachers. Any student misbehaving in the class room shall at once be reported by the teacher to the Head of the College/ Institution for disciplinary action.
- b. No student is allowed to leave the lecture room without prior permission of his teacher or until the class is dismissed. Every student is required to be punctual according to the schedule notified for clinical teaching and ward duty.
- c. Students attending hospitals are required to abide by the hospital rules and while in the hospital, they are under the head of the concerned medical/dental institution for all disciplinary purpose.

5. Social Media Use.

Students are expected to use social media responsibly and be aware of the unexpected and long-term consequences of its irresponsible use. No derogatory/negative discussions about the country, NUMS, or army should be discussed on social media. At campus, use of social media should be restricted to academic purposes only.

6. Student Welfare Services.

A range of services is available to support students during their studies at NUMS. NUMS strives to create a student support system, where every student will be taken care of in terms of personal, emotional, social or in academic terms. Course Coordinator will help you to assist in academic, personal, financial and extra-curricular domains.

7. Student Engagement.

Students shall be required to actively participate in various co-curricular activities for personal and professional grooming

8. Conflict of interest.

Faculty and other Staff with a close personal or familial relationship with a student or a student's family should not be involved in decisions about that student's admission, supervision or academic progress, or the award of any studentships, prizes or other grants to the student.

9. Disciplinary matters.

The disciplinary matters shall be investigated as per Disciplinary policy issued by Registrar Directorate

10. Academic Integrity and Plagiarism.

Referred to NUMS Plagiarism policy available on NUMS website

11. NUMS Grievances Policy

- a. The Grievance Policy applies principally to employees and students of NUMS including faculty and staff. This policy also applies to those who interact with the NUMS or its affiliated programs. Any member of the NUMS community, including but not limited to students, employees, and alumni, has a right to express a grievance.
- b. This policy applies to all university-related activities both on and off campus and applies to all individuals involved in these activities, as well as to the conduct by or directed toward third parties, which are not themselves employees or students of NUMS.
- c. It covers individual grievance of specific nature raised individually by the concerned stakeholder only and not the grievances of general applicability or of collective nature or raised collectively by more than one stake holder.
- d. This procedure does not apply to complaints, grievances or appeals where other policies or procedures are in place like sexual harassment, dismissal or disciplinary action; or where the grievance relates to matters that are already being considered pursuant to another policy or procedure.
- e. It can be changed/amended at any time, when deemed necessary, with the permission of the Vice Chancellor NUMS.
- f. Further details of this policy are available at Registrar Directorate

12. Scholarship policy.

Referred to HEC need based scholarship policy and NUMS scholarship policy

13. Regulations Relating to Expulsion.

- a. The punishment of expulsion whenever imposed on a student mean a loss of a specific duration of studies as determined by the authority concerned and will mean his being debarred from the university examination during the period of his/ her expulsion.
- b. A student expelled from the university will not be readmitted before the expiry of the period of his expulsion.
- c. All cases of expulsion should be reported to the Academics Directorate by the concerned College/ Institution concerned for registration and notification.

Annex-A**Postgraduate (PG) Forms**

S. No	Form No	Title
i.	PG-01	Post-graduation Registration Form
ii.	PG-02	Migration/Transfer of Credit Application Form
iii.	PG-03	Request for Freezing of Semester
iv.	PG-04	Appointment of Supervisor/Co- Supervisor
v.	PG-05	Willingness of the Supervisor/Co-Supervisor
vi.	PG-06	Appointment of Supervisory Committee
vii.	PG-07	Petition for Change in Supervisory Committee
viii.	PG-08	Semester Assessment/Examination Results
ix.	PG-09	Improvement/Repeat Course Form
x.	PG-10	Bi-annual Progress Report
xi.	PG-11	Report of Qualifying Examination Comprehensive Exam
xii.	PG-12	Synopsis Submission Form
xiii.	PG-13	Institutional Review Board Approval Letter
xiv.	PG-14	Schedule for Synopsis Presentation
xv.	PG-15	Synopsis Evaluation Request
xvi.	PG-16	Synopsis Evaluation Report
xvii.	PG-17 (a)	Synopsis Approval/ Qualifying Examination (B) Report
xviii.	PG-17 (b)	Change of Synopsis Title/ Project
xix.	PG-18	Publication Record
xx.	PG-19	Thesis/Dissertation Submission/ Verification
xxi.	PG-20	Acknowledgement Receipt of Thesis/ Dissertation
xxii.	PG-21 (a)	Thesis Evaluation Request for Master programs
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xxiv.	PG-22	Thesis/Dissertation Evaluation Report
xxv.	PG-23	Dissertation Foreign Evaluation Report
xxvi.	PG-24 (a)	Schedule for Thesis/Dissertation Presentation
xxvii.	PG-24 (b)	Abstract Submission
xxviii.	PG-25	Final Thesis/Dissertation Grading Report
xxix.	PG-26	Final Thesis/Dissertation Approval Report
xxx.	PG-27	Check List for Approval of Degree

ANNEX-PG-01

POSTGRADUATION REGISTRATION FORM

1. Name: _____ 2. Father's/ Husband's Name: _____
 3. Date of Birth (dd/ mm/ yyyy): _____ 4. Gender: _____
 5. Nationality: _____ 6. District of Domicile: _____
 7. CNIC Number: _____ 8. PM&DC Registration No: _____

9. Mailing Address (mention all relevant information like House No., Street No., Sector, etc.): _____

10. Telephone/Mobile Number: _____ 11. Email address: _____

12. Academic Data/ Qualification

	School/ College/ University	From	To	Division GPA/ Grade	Marks obtained (%)	Major subjects taken
• Matric • O'Level/ Other						
• F.A./ F.Sc. • A'Level/ Other						
• MBBS/ BDS • BS/ Other						
• MPhil/ MSc/ • Equivalent						

Department: _____ College/Institute: _____

Program: Diploma _____ MSc/ MPH _____ MPhil _____ PhD _____

CERTIFICATE BY THE APPLICANT

I, hereby, solemnly declare that the information provided and statements made by me in this form are true and correct to the best of my knowledge and belief. I fully understand that any false statement of mine shall render me liable for termination from the college/institute/program.

Date: _____ Student Signature: _____

Head of Department: _____ Head of Institute/ Dean: _____

Date: _____ Date: _____

FOR REGISTRAR OFFICE USE ONLY

Registration No. issued _____

Checked by**Registrar**

Signature: _____

Signature: _____

Name: _____

Name: _____

Date: _____

Date: _____

INSTRUCTIONS

1. Attach Following:
 - a) Two 1" x 1" size photographs of the candidate with sky blue background attested on the back
 - b) Photocopies of the certificates of Matric/ Intermediate or equivalent (including equivalence certificates)
 - c) Photocopy of Entry Test result of NUMS/ NTS/ GAT
 - d) Original NOC to be attached, if migrating from other Board/ University/ Institution
 - e) Photocopy of Passport/ (_____)
 - f) Photocopy of CNIC/Form 'B'
2. The Principal/ Dean of all Colleges/ Institutions shall submit the Registration Form along with attested copies of Academic Record and Registration Fee at prescribed rates to the Registrar within 20 days of admission
3. The form, photocopies of Academic record and Photographs must be attested by the Principal/ Dean or applicant's duly authorised nominee
4. In case of a student migrating from any other University/ Board, Migration Certificate/ NOC in original should also be submitted
5. If any student is struck off from the rolls of a College/ Institution/ Department, migrates/ shifts to another College/ Institution/ Department, rusticated or expelled or is readmitted, such facts shall be reported to the Registrar within seven days
6. In case of a student already registered with University, getting admission to another course at the same/ another College/ Institution/ Department, the Principal/ Dean/ Head of the College/ Institution/ Department shall forward a fresh registration form dully filled from all respects quoting the registration number of such student along with the prescribed registration fee for the course.

Distribution:

- 1 x copy to be maintained in the concerned Institute, Registrar Office/ Academics Directorate & Controller of Examinations.

ANNEX-PG-02

APPLICATION FORM FOR MIGRATION/ TRANSFER OF CREDIT HOURS

1. Name: _____ 2. Registration No: _____
 3. Date of Birth (dd/ mm/ yyyy): _____ 4. Gender: _____
 5. Nationality: _____ 6. District of Domicile: _____
 7. CNIC Number: _____ 8. PM&DC Registration No: _____
 9. Mailing Address (mention all relevant information like H. No., St No., Sector, etc.): _____

10. Telephone/ Mobile Number: _____ 11. Email address: _____

12. Academic Data/Qualification

	Name and Location of School/ College/ University	From	To	Division GPA/ Grade	Marks obtained (In%)	Major subjects taken
• Matric						
• O'Level/ Other						
• F.A./F.Sc.						
• A'Level/ Other						
• MBBS/ BDS						
• BS/ Other						
• MPhil/ MSc/ • Equivalent						

Academic Achievements

Distinctions, awards paper published and other recognitions of academic achievements (please indicate the basis of selection and date of each listing).

13. Current Academic Program

Program (currently studying): _____

Institution/ university: _____ Entry date: _____

Semesters completed: _____ Credits earned: _____ CGPA: _____

14. Reason of Transfer

(Be specific and to the point. Clearly indicate changes in circumstances, which render it difficult for you to continue education in your present institution)

15. Undertaking: I have read the details given in application form for Transfer of Students. I, hereby, apply for admission to the MPhil/ PhD Program at NUMS as a Transfer student and certify that, to the best of my knowledge, all the above statements are complete and correct. I

also declare that I have never been involved in any illegal activity. I understand that any attempt to influence the admission process or providing false or incomplete information would result in my disqualification or dismissal from the program at any stage.

Date: _____ Applicant's Signature: _____

16. (TO BE FILLED BY CONCERNED NUMS' COLLEGE / INSTITUTE)

Details of Accepted Courses / Credits Course Code

Course Code	Course Title	Credits	Grade

Details of Deficient Courses

Course Code	Course Title	Credits	Grade

The case for migration from above mentioned institution to our College/ School/ Institute has been critically examined by faculty and it is recommended that Migration/ transfer of credits of student be accepted to join _____ semester with _____ credit hours _____ of course work.

Recommended/ Not Recommended

Dated: _____ Signature of Head of Department: _____

Approved/ Not Approved

Dated: _____ Signature Head of Institute/ Dean: _____

Please attach the following documents with the migration form:

- Official transcript of semesters studied at Parent University.
- Photocopy of mark sheets of Matric and FSc/ equivalent examinations (equivalence certificates from IBCC, Pakistan in case of O/ A level/ equivalent exams).
- Detailed courses outline of courses already studied.
- No Objection Certificate (NOC) from Parent University.
- Character certificate
- Bank Draft amounting to Rs. 5000/- (Rupees five thousand) in favour of NUMS as processing fee (non-refundable).

Distribution:

- 1 x copy to be maintained in the concerned Institute, Registrar Office/ Academics Directorate & Controller of Examinations.

ANNEX-PG-03

REQUEST FOR FREEZING OF SEMESTER (PhD & Master Programs)

Name: _____ Registration No: _____

Department: _____ Institute: _____

Cell No: _____ E-mail: _____

Freezing Requested for: Semester _____ Date _____

Will rejoin: Semester _____ Date _____

Reasons for freezing (Tick (✓))
a. Domestic / Personal b. Medical Reason
c. any other reason: _____

Present Postal Address _____

Date _____ Student's Signature _____

1. Previous record of freezing _____

2. Copy of Fee Challan attached Amounting to Rs. _____

3. Remarks of Head of Department _____

Date _____ Signature of Head of Department _____

Recommendation of Dean/ Head of Institute

Recommended/ Not Recommended

Date _____ Signature _____
Dean/ Head of Institute

(For Registrar Office use only)

1. Freezing semester:

2. Will rejoin: Date _____ Semester _____

Approved/ Not Approved

Date _____ Registrar _____

Notes: Freezing period will be counted toward overall allowed duration for completion of PG program.

- a) Applicant will be charged registration fee @ of 25% of tuition fee per month for the freezing period.
- b) Copy of approved form will be sent to Registrar/Academics Directorate & Controller of Examinations.

ANNEX-PG-04

**APPOINTMENT OF SUPERVISOR/ CO-SUPERVISOR
(PhD & Master Programs)**

Professor _____

Department _____

Dear Sir/ Madam,

The Head of Department of _____, (College/ Institute) _____ is pleased to appoint you as the Supervisor/Co-Supervisor for the following Student:

Student's Name: _____

Registration No: _____

Program/ Subject: _____

During the period of research work, you are requested to supervise the course work, synopsis, thesis defense and to send us the progress report on the prescribed form. You will also be required to be present at the time of thesis defense. Kindly send us your acceptance in writing or through an email _____ (signed scanned copy), so that we may formally intimate your name to the Academics Directorate, NUMS.

I hope the student will greatly benefit from your valuable experience towards completing his/ her degree in time.

Date: _____

(Head of Department)**Countersigned**

Date: _____

Dean/ Head of Institute**Distribution:**

- 1 x copy to be maintained in the concerned Institute, Academics Directorate & Controller of Examinations.

ANNEX-PG-05

**WILLINGNESS OF THE SUPERVISOR/ CO-SUPERVISOR
(PhD & Master Programs)**

Professor (HoD) _____

Department _____

Dear Sir/ Madam,

I am willing to supervise (Mr./ Ms.) _____ Registration
No. _____ throughout the enrolled degree program _____

I will facilitate the student in all steps of his/ her degree program including completion of his/ her
research work in time and will intimate any change in supervisor-ship during the enrolled program.

Date: _____

(Supervisor/Co-supervisor)**Distribution:**

- 1 x copy to be maintained in the concerned Institute, Registrar Office/ Academics Directorate & Controller of Examinations.

ANNEX-PG-06

**POSTGRADUATE SUPERVISORY COMMITTEE (SC)
(PhD & Master Programs)**

Name: _____ Registration No: _____

Department: _____ Institution: _____

Subject: _____ Date of Admission: _____

Contact No: _____ Email: _____

Date: _____ Student's Signature: _____

Supervisory Committee Members

1. Supervisor: _____ Signature: _____

Qualification/ Dept./ Institute: _____

2. Internal member: _____ Signature: _____

Qualification/ Dept./ Institute: _____

3. External member: _____ Signature: _____

Qualification/ Dept./ Institute: _____

4. External member: _____ Signature: _____

Qualification/ Dept./ Institute: _____

5. Co-Supervisor (if any): _____ Signature: _____

6. Qualification/ Dept./ Institute: _____

Recommended/ Not Recommended

Dated: _____ Signature of Head of Department: _____

Approved/ Not Approved

Dated: _____ Signature Head of Institute/ Dean: _____

Distribution:

- 1 x copy to be maintained in the concerned Institute, Academics Directorate & Controller of Examinations.

ANNEX-PG-07

PETITION FOR CHANGE IN THE SUPERVISORY COMMITTEE (PhD & Master Programs)

Name: _____ Registration No: _____
 Department: _____ Program/ Subject: _____
 Contact no: _____ Email: _____
 Student' Signature: _____ Date: _____

COMMITTEE MEMBERS CHANGES

Delete**Add**

Name: _____	Name: _____
Department: _____	Department: _____
Signature: _____	Signature: _____
Name: _____	Name: _____
Department: _____	Department: _____
Signature: _____	Signature: _____

SUPERVISOR/ CO-SUPERVISOR CHANGES

Delete**Add**

Name: _____	Name: _____
Department: _____	Department: _____
Signature: _____	Signature: _____

Recommended/ Not Recommended

Dated: _____ Signature of Head of Department: _____

Approved/ Not Approved

Dated: _____ Signature Head of Institute/ Dean: _____

Distribution:

- 1 x copy to be maintained in the concerned Institute, Academics Directorate & Controller of Examinations.

ANNEX-PG-08

**SEMESTER ASSESSMENT/ EXAMINATION RESULTS
(PhD & Master Programs)**

Faculty/ Course Instructor: _____

Program: _____ Department: _____

Institution: _____ Semester: _____

Course Code: _____ Course Title: _____ Credit Hour: _____

Internal Assessment

S. No.	Registration No.	Name	Quizzes (5 %)	Sessional Examination (10%)	Mid Semester Examination (25 %)	Assignments/ Presentations / Practical/ OSCE/ OSPE (20%)

Date _____ Faculty/ Course Instructor Signature: _____

Distribution:

- 1 x copy to be maintained in the concerned Institute, Academics Directorate & Controller of Examinations.

ANNEX-PG-09

IMPROVEMENT/ REPEAT COURSE FORM (PhD & Master Programs)

Name: _____ Registration No: _____

Department: _____ Institution: _____

Program: _____ Subject: _____ Admission Date: _____

S. No.	Course Code	Course Title	Credit Hrs	Core/ Elective	Grade	Grade Points
1.						
2.						
3.						
4.						

GPA Semester-I: ____ GPA Semester-II: ____ GPA Semester-III: ____ GPA Semester-IV: ____ CGPA: ____

FOR REPEAT/ IMPROVEMENT

Current Semester CGPA: _____ Course grade for repeat/ improvement:

Code _____ Course Title: _____ Credit Hour: _____

Code _____ Course Title: _____ Credit Hour: _____

Chances availed: 1st/ 2ndCourse offer in Semester: Spring/ Summer/ Fall _____

Date: _____ Student's Signature: _____

Recommended/ Not Recommended

Date: _____ Supervisor' Signature: _____

Countersigned

Head of Department: _____ Head of Institute/ Dean: _____

Approved/ Not Approved

Date: _____ Controller of Examinations: _____

Distribution:

- 1 x copy to be maintained in the concerned Institute, Registrar Office/ Academics Directorate & Controller of Examinations.

ANNEX-PG-10

BI-ANNUAL PROGRESS REPORT (PhD & Master Programs)

Name: _____ Registration No: _____

Department: _____ Institution: _____

Subject: _____ Admission Date: _____ Date of Registration: _____

Degree completion date: _____ Semester: ____ Duration of progress report: _____

Coursework

S. No.	Course Code	Course Title	Credit Hrs	Core/ Elective	Grade	Grade Points
1.						
2.						
3.						
4.						

GPA Semester-I: ____ GPA Semester-II: ____ GPA Semester-III: ____ GPA Semester-IV: ____ CGPA: ____

Research work:

Research Topic: _____

Date of Approval from SC (MPhil)/ AS&RB (PhD) _____

Research Progress: _____

Academic Achievements:

S. No.	Descriptions	During Reporting Period	Total
a	Number of Publications in HEC recognised Journals (Please attach E-Copy of Papers)		
b	Presentations in Conferences/ Seminars/ Workshops Participated (Please attach details)		
c	Any other significant achievements (Please attach details)		

Supervisory Committee remarks on student's progress:

Date: _____

Supervisor's Signature: _____

Countersigned

Head of Department: _____ Head of institute/ Dean: _____

Distribution:

- 1 x copy to be maintained by the concerned Institute, Academics Directorate & Controller of Examinations.

ANNEX-PG-11

REPORT OF QUALIFYING EXAMINATION COMPREHENSIVE EXAM (PhD)

Name: _____ Registration No.: _____

Department: _____ Institution: _____

1st Attempt☐

Date: _____ CGPA of Course work: _____

Exam	Date of Examination	Marks obtained (%)	Grade

Date: _____

Signature of Supervisor: _____

Date for next exam: _____

2nd Attempt☐

Date: _____ CGPA of Course work: _____

Exam	Date of Examination	Marks obtained (%)	Grade

Supervisor's Remarks _____

Date: _____

Signature of Supervisor

Recommended/ Not Recommended

Dated: _____

Signature of Head of Department: _____

Approved/ Not Approved

Dated: _____

Signature Head of Institute/ Dean: _____

Distribution:

- 1 x copy to be maintained in the concerned Institute, Academics Directorate & Controller of Examinations.

ANNEX- PG-12

SYNOPSIS SUBMISSION FORM (PhD & Master Programs)

Name: _____ Registration No: _____

Department: _____ Institution: _____

Subject: _____ Date of synopsis submission: _____

Research Work

1. Topic:

2. Academic Policies Awareness/ Proposed Timeline:

Check list	YES	NO
Are you aware of the NUMS academic policies for Masters/ MPhil/ PhD programs?		
Is synopsis prepared according to NUMS' guidelines?		
Are you aware of the plagiarism policy?		
Proposed timeline for completion of research work/ thesis	Date: _____	

Date: _____ Student's Signature: _____

Date: _____ Supervisor's Signature: _____ Head of Department: _____

Note: Attach the copy of synopsis with this form.

Distribution:

- 1 x copy to be maintained in the concerned Institute, Academics Directorate & Controller of Examinations.

ANNEX - PG-13

**INSTITUTIONAL REVIEW BOARD APPROVAL LETTER
(PhD & Master Programs)**

Name: _____ Registration No: _____

Department: _____ Institution: _____

Subject: _____

Dear _____
(Student/ Principal Investigator)

We are pleased to inform you that your proposed study entitled

_____ vide your
application received on _____ was reviewed on _____ by _____ IRB&EC.The board has approved/ approved with minor changes in the protocol/ informed consent form
vide IRB&EC No. _____ date _____ for period from _____ to _____.

You are reminded to submit reports in a timely manner as per our IRB&EC policy.

Date: _____
Signature of Secretary IRB&EC**Distribution:**

- 1 x copy to be maintained in the concerned Institute, Academics Directorate & Controller of Examinations.

ANNEX-PG-14

**SCHEDULE FOR SYNOPSIS PRESENTATION
(PhD. & Master Programs)**

Name: _____ Registration No: _____

Department: _____ Institute: _____

Subject: _____ CGPA of coursework: _____

Research Topic:_____
_____**Synopsis Evaluation Committee:**

1. Chairperson: _____

2. Supervisor: _____

3. Internal Member: _____

4. External Member: _____

Proposed date of Synopsis Presentation: _____

Date: _____ Supervisor' Signature: _____

Date: _____ Head of Department Signature: _____

Dean Office:

Faculty: _____

Final date of Schedule for Synopsis Presentation/ Approval: _____

Dean Name: _____ Signature: _____

Date: _____

Distribution:

- 1 x copy to be maintained in the concerned Institute, Academics Directorate & Controller of Examinations.

ANNEX-PG-15

**SYNOPSIS EVALUATION REQUEST
(PhD & Master Programs)****A: Formulation of Synopsis Evaluation Committee:**

1. Chairperson: _____
2. Supervisor: _____
3. Internal Member: _____
4. External Member: _____
5. External Member: _____

Dean/ Head of Institute: _____

B: Request for Synopsis Evaluation for PhD/Master Program:

Dear Sir/Madam,

Subject: Request for Synopsis Evaluation for PhD/ Master Program

1. I am pleased to forward you the synopsis of Mr./ Ms. _____ Registration No. _____ for your assessment/ evaluation. The student is registered in MPhil/ PhD Program in the department of _____ of the Institute _____, NUMS. Title of Synopsis is as follows:

2. You are requested to attend the synopsis presentation Scheduled on _____ at _____ and provide your valuable assessment on attached Form No. PG-16.

3. The University is thankful to you for sparing your precious time for the required assessment.

Dated: _____

Dean/ Head of Institute

ANNEX-PG-16

SYNOPSIS EVALUATION REPORT (PhD & Master Programs)

Name: _____ Registration No: _____

Department: _____ Subject: _____

Supervisor: _____ CGPA of Course work: _____

Thesis/ Dissertation Topic: _____

Part A-Synopsis Evaluation (75 Marks)

Evaluation Criteria	Marks*				Comments
	2	3	4	5	
I. Introduction/ Review					
1. Project Summary					
2. Introduction/ Problem Statements					
3. Literature Review					
4. Research Question/ Hypothesis					
5. Research Objectives/ Originality					
Total Marks in (I)					_____ / 25
II. Research Methodology					
6. Study site/ design					
7. Sampling techniques/ size					
8. Methods and data collection					
9. Statistical analysis					
Total Marks in (II)					
III. Feasibility/ Outcome of Study					
10. Plan of work/ Gantt Chart					
11. Practicality to conduct research					
12. Application/ relevance					
13. Estimated cost/ budget					
Total Marks in (III)					
IV. Structure of synopsis					
14. References, language, grammar & annexes					
15. Overall Quality & Clarity of synopsis					
Total Marks in (IV)					_____ / 10
Total Marks in Part - A					_____ / 75

* 2 = unsatisfactory, 3 = satisfactory, 4 = Good, 5 = Excellent

Part-B Presentation & QA session (25 Marks)

Presentation skills/ slides	____/10
Q&A session/ Viva	____/15

Overall Performance

Part-A ____ out of 75 Marks) Part-B ____ out of 25 Marks) Total (100 Marks) ____

Overall Rating

Overall Rating by Evaluators			
Accepted <input type="checkbox"/>	Accepted with conditions		Rejected <input type="checkbox"/>
	Minor Revisions <input type="checkbox"/>	Major Revisions <input type="checkbox"/>	

Remarks:

Name of Examiner: _____ Institute _____

Date: _____ Signature: _____

Grading Scale:

Excellent >80% (A)	<i>An excellent performance, clearly outstanding. The candidate demonstrates excellent knowledge/skills</i>
Good 68-80% (B)	<i>The candidate demonstrates sound knowledge and a very good degree of independent thinking and research methods.</i>
Satisfactory 60-67% (C)	<i>The candidate demonstrates a reasonable degree of knowledge and application/ research</i>
Unsatisfactory Below 60% (D)	<i>The candidate demonstrates a very limited degree of knowledge/ presentation skills</i>

Rating Scale:

Accepted with Minor/Major Correction	<i>The synopsis conditionally approved , subject to corrections, as outlined in comments report</i>
Rejected	<i>Synopsis requires major, substantive amendment in objectives and methods, and submission for re-examination within the time frame specified.</i>

Distribution:

- 1x copy to be maintained in the concerned Institute, student file and Academics Directorate

ANNEX- PG-17 (a)

SYNOPSIS APPROVAL/ QUALIFYING EXAMINATION (B) REPORT (PhD & Master Programs)

Name: _____ Registration No: _____

Department: _____ Institute: _____

Subject: _____ Date of Synopsis Meeting: _____

Title: _____

Synopsis Evaluation Committee

First Attempt: _____ Second Attempt: _____

1 _____ Supervisor	_____ Signature
-----------------------	--------------------

2 _____ Internal Examiner	_____ Signature
------------------------------	--------------------

3 _____ External Examiner (1)	_____ Signature
----------------------------------	--------------------

4 _____ External Examiner (2)	_____ Signature
----------------------------------	--------------------

Head of Department _____ Signature _____

Committee Chair/ Dean remarks _____

Approved/Not Approved _____

Date _____

Dean/ Head of Institute**Distribution:**

- 1 x copy to be maintained in the concerned Institute, Academics Directorate & Controller of Examinations.

**CHANGE OF SYNOPSIS TITLE / PROJECT
(PhD & Master Programs)**

ANNEX- PG-17 (b)

Name: _____ Registration No: _____

Department: _____ Institute: _____

Subject: _____ Date of Approved Synopsis Defense: _____

Approved Title: (Please attach already approved title of synopsis as Annex-A)

Reason of revision:

Revised Title: (Please attach approval of revised title of synopsis as Annex-B)

Synopsis Evaluation Committee

1 _____	_____
Supervisor	Signature

2 _____	_____
Internal Examiner	Signature

3 _____	_____
External Examiner	Signature

4 _____	_____
External Examiner	Signature

Head of Department _____	Signature _____
--------------------------	-----------------

Committee Chair/ Dean remarks _____

Approved / Not Approved _____

Date _____

Dean/ Head of Institute

Distribution:

- 1 x copy to be maintained in the concerned Institute, Academics Directorate & Controller of Examinations.

Note: In case of change of title of synopsis/ Project, student will resubmit the title/ project through concerned institute with all formalities of synopsis after approval from FBS.

ANNEX - PG-18

**PUBLICATION RECORD
(MS/ MPhil/ PhD Program)**

Name: _____ Registration No: _____

Department: _____ Subject: _____

Certificate of Research Paper Submission/ Acceptance

1. MPhil/ MS

It is certified that the manuscript entitled _____
_____ has been submitted/accepted in journal _____
on _____ and likely to be published within six months. The copy of
submitted/ accepted manuscript and acknowledgment is attached.

Student' Signature: _____ Supervisor' Signature: _____

2. PhD

The paper titled _____
has been published in Journal Name: _____
Issue: _____ Volume: _____ Pages: _____
DOI (if any): _____
Journal Impact factor: _____ Category journal as per HEC: _____

Student's Signature: _____ Supervisor' Signature: _____

Dated: _____ Signature of Head of Department: _____

Dated: _____ Signature of Head of Institute/ Dean: _____

Distribution:

- 1 x copy to be maintained in the concerned Institute, Academics Directorate & Controller of Examinations.

ANNEX- PG-19

THESIS/ DISSERTATION SUBMISSION/ VERIFICATION

(PhD & Master Programs)

Full Name: _____ Registration No: _____

Department: _____ Institute: _____

Degree Program: _____ Date of Submission: _____

Thesis Title: _____

1. Student's Declaration:

- a. I declare that the contents/ research presented in this thesis/ dissertation is my own work, which was done at NUMS unless otherwise stated/ acknowledged in text/ references. The research work/ thesis has not been previously submitted for any other degree.
- b. My thesis is as per guideline of NUMS and has been reviewed by the Supervisor.
- c. At any time, if my statement is found to be incorrect even after my Graduation, the university has the right to withdraw my MPhil/ PhD degree.

Date: _____ Name/ Signature of student _____

2. Endorsement by Supervisor:

- a. I, hereby, confirm that (Name) _____ has completed the course work of _____ credit hours with CGPA _____ required for the program _____.
- b. I have screened the thesis by using Turnitin Software and similarity index is _____% report is attached.
- c. I am satisfied with the quality of the research work presented and therefore, have no hesitation in recommending that the thesis be submitted for examination.

Date _____ Name/ Signature of Supervisor _____

3. Head of Department:**Recommended/ Not Recommended**

Dated: _____ Signature of Head of Department: _____

For Dean Office:

Check List	YES	NO
Whether the thesis submitted is on prescribed NUMS' format?		
Turnitin report attached/ similarity index is acceptable as per HEC?		
Approved copy of Synopsis is attached?		
Five (5) copies of soft binding thesis are submitted?		
Soft-copy of the thesis is provided in CD/ USB?		
Data on Thesis submission form is as per the University record?		
Examination Fees Receipt is attached?		

Name of Staff (received the document) _____

Dated: _____

COUNTERSIGNED

Dated: _____ Signature Head of Institute/ Dean: _____

Distribution:

- 1 x copy to be maintained in the concerned Institute, Academics Directorate & Controller of Examinations, IRB&EC & Dean Office.

ANNEX- PG-20

ACKNOWLEDGEMENT RECEIPT OF THESIS/ DISSERTATION**(PhD & Master Programs)**

This is to acknowledge that Mr./ Ms. _____

Registration No. _____ has submitted five (5) hard copies and one softcopy of the thesis to the department. The other pertinent details are as follows:

Title of Thesis/ Dissertation	
Degree	
Program	
Faculty/ Subject	
College/ Institute	
Date of Admission	
Due Date of Submission	

*where applicable

(Supervisor)

Date: _____

(Head of Department)

Date: _____

Distribution:

- 1 x copy to be maintained in the concerned Institute, Academics Directorate & Controller of Examinations.

ANNEX- PG-21 (a)

THESIS EVALUATION REQUEST
(Master Programs)**A: Formulation of Thesis Evaluation Committee**

1. Chairperson _____
2. Supervisor _____
3. Internal Examiner _____
4. External Examiner _____
5. External Examiner _____

B: Request for Thesis Evaluation for Master Program

Dear Sir/ Madam,

Subject: Request for Thesis Evaluation for Master Program

1. I am pleased to forward you the thesis of Mr./ Ms. _____ Registration No. _____ for your assessment/ evaluation. The student is registered in ----- Program in the faculty of _____ at the _____ (College/ Institute).

Other pertinent details are as follows:

a. Title of Thesis _____

2. You are requested to provide your valuable assessment on the form attached herewith.

3. The University is thankful to you for sparing your precious time for the required assessment.

Date: _____

(Dean/ Head of Institute)

NOTE: One hard copy of the Thesis, One Digital Copy, Thesis evaluation Form.

Distribution:

- 1 x copy to be maintained in the concerned Institute, Academics Directorate & Controller of Examinations.

ANNEX- PG-21 (b)

DISSERTATION EVALUATION REQUEST
(PhD Program)

Dear Sir/Madam,

A. Formulation of Dissertation Evaluation Committee

1. Chairperson _____
2. Supervisor _____
3. Internal Examiner _____
4. External Examiner _____
5. External Examiner _____

B. Request for Thesis Evaluation for Master Program**Subject: Request for Thesis Evaluation for PhD Program**

I am pleased to forward you the thesis of Mr./Ms. _____ Registration No. _____ for your assessment/evaluation. The student is registered in PhD Program in the faculty of _____ at the _____ (College/Institute). Other pertinent details are as follows:

- a. Title of Thesis _____

You are requested to provide your valuable assessment on the form attached herewith. The University is thankful to you for sparing your precious time for the required assessment.

Date: _____

(Dean/Head of Institute)

NOTE: One hard copy of the Thesis, One Digital Copy, Thesis evaluation Form.

Distribution:

- 1 x copy to be maintained in the concerned Institute, Academics Directorate & Controller of Examinations.

ANNEX-PG-22

THESIS/DISSERTATION EVALUATION REPORT **(PhD & Master Programs)**

(To be used by Individual Examiner)

Student Name: _____ Registration No. _____

Degree enrolled: _____ Department: _____

Thesis Topic: _____

Evaluation Criteria	Observations/ Comments
Introduction/ Review	
1. Abstract	
2. Introduction / statement of problem	
3. Research objectives/ originality	
4. Literature review (relevant and clearly phrased)	
Research Methodology	
5. Experimental design/Sampling	
6. Research methods and techniques	
7. Statistical analysis	
Results	
8. Enough data to achieve objectives	
9. Research findings/originality of results	
10. Clarity of results descriptions (graphs, tables & figures)	
Discussions/ Conclusion	
11. Scientific interpretation of results & comparison with published literature	
12. Original contribution to knowledge/ application	
13. Conclusions/recommendations	
Structure of thesis	
14. References, annexures language and grammar	
15. Overall Quality & Clarity of thesis	

Select ONE:

- The thesis is ready to proceed to the Oral Defense
- Minor revisions before to proceed to the Oral Defense
- Major revisions before to proceed to the Oral Defense

☐
☐
☐

Date: _____

Evaluator' Signature: _____

NOTE: Report must include a description of the shortcomings /observations you would expect the student to address in order for the thesis to be and proceeded to the Oral Defense. (please use separate sheet for comments if required)

Distribution:

- 1 x copy to be maintained in the concerned Institute, Academics Directorate & Controller of Examinations.

ANNEX-PG-23

**DISSERTATION FOREIGN EVALUATION REPORT
(PhD Program)**

I hereby, recommend that the dissertation prepared under my supervision by Mr./Ms.

_____Registration No. _____

entitled _____

may be submitted for AS&RB approval.

Reports of the following External Evaluators are attached:

External Evaluator 1: Name: _____

Institute: _____Country _____

External Evaluator 2: Name: _____

Institute: _____Country _____

1. Supervisor: _____Signature: _____

Date: _____

Recommended/ Not Recommended

2. Dean: _____Signature: _____

3. AS&RB Approval/Meeting No./Date _____

Distribution:

- 1 x copy to be maintained in the concerned Institute, Academics Directorate & Controller of Examinations.

ANNEX-PG-24 (a)

**SCHEDULE FOR THESIS/DISSERTATION PRESENTATION
(PhD & Master Programs)**

Name: _____ Registration No: _____

Department: _____ Institute: _____

Subject: _____ CGPA of Coursework: _____

Research Topic:_____

Proposed dates of thesis Presentation: _____

Date: _____ Supervisor Signature: _____

Date: _____ Head of Department Signature: _____

Dean Office:

Faculty _____

Final date of Schedule for thesis Presentation/Approval: _____

Dean Name: _____ Signature: _____

Date: _____

Distribution:

- 1 x copy to be maintained in the concerned Institute, Academics Directorate & Controller of Examinations.

ANNEX-PG-24 (b)

**ABSTRACT SUBMISSION
(PhD & Master Programs)**

Name: _____ Registration No: _____

Department: _____ Subject: _____ Institute: _____

Abstract:

Supervisor Name: _____ Signature _____

Date: _____

Distribution:

- 1 x copy to be maintained in the concerned Institute, Academics Directorate & Controller of Examinations _____

ANNEX-PG-25

THESIS/ DISSERTATION EVALUATION REPORT
(PhD & Master Programs)
 (To be used by Individual Evaluator)

Name: _____ Registration No: _____

Department: _____ Subject: _____

Supervisor: _____ CGPA of Course work: _____

Thesis/ Dissertation Topic: _____

A-Internal/ External Thesis Evaluator (75 Marks)

Internal/ External Thesis Evaluator (15 marks)					Comments
Evaluation Criteria	2	3	4	5	
I. Introduction/ Review					
1. Abstract					
2. Introduction / statement of problem					
3. Research objectives/ originality					
4. Literature review (relevant & clearly phrased)					
Total Marks in (I)					____ / 20
II. Research Methodology					
5. Experimental design/ Sampling techniques					
6. Research methods and techniques					
7. Statistical analysis					
Total Marks in (II)					
III. Results					
8. Enough data to achieve objectives					
9. Research findings/originality of results					
10. Clarity of results descriptions (graphs, tables etc					
Total Marks in (III)					
IV. Discussions/ Conclusion					
11. Scientific interpretation of results & comparison with published literature					
12. Original contribution to knowledge/ application					
13. Conclusions/recommendations					
Total Marks in (IV)					
V. Structure of synopsis					
14. References, annexures language, grammar					
15. Overall Quality & Clarity of thesis					
Total Marks in (V)					____ / 10
Total Marks in Part - A					____ /75

* 2 = unsatisfactory, 3 = satisfactory, 4 = Good, 5 = Excellent

RECOMMENDATION BY THE EXAMINER

I recommend the thesis to be accepted /accepted subject to suggest correction are incorporated in the thesis and duly certified by the supervisor before the conduct of defense/viva-voce thesis examination

Accepted <input type="checkbox"/>	Accepted with conditions		Rejected <input type="checkbox"/>
	Minor Revisions <input type="checkbox"/>	Major Revisions <input type="checkbox"/>	

Remarks:

Note: attach additional page for comments.

B- Defense of thesis (25 Marks)			
Presentation & QA session			
	Total Marks	Marks obtained	Comments
1. Presentation skills/ slides	(10 Marks)		
2. Q&A session	(15 Marks)		

C- Overall Performance

Part-A (75 Marks) _____ **Part-B (25 Marks)** _____ **Total (100 Marks)** _____ (**___ Grade***)

Name of Examiner: _____

Qualification: _____ Institute _____

Date: _____ Signature: _____

*** Grading Scale:**

Excellent ≥80% (A)	<i>An excellent performance, clearly outstanding. The candidate demonstrates excellent knowledge.</i>
Good 79-70 % (B)	<i>A very good performance. The candidate demonstrates sound knowledge and a very good degree of independent thinking.</i>
Satisfactory 69-60% (C)	<i>A good performance in most areas. The candidate demonstrates a reasonable degree of knowledge.</i>
Unsatisfactory Less than 60% (D)	<i>A performance that meets the minimum criteria, but no more. The candidate demonstrates a very limited degree of knowledge.</i>

Distribution:

- 1 x copy to be maintained in the concerned Institute, Academics Directorate & Controller of Examinations

ANNEX-PG-26

FINAL THESIS/ DISSERTATION APPROVAL REPORT (PhD & Masters Programs)

We hereby, recommend that the thesis/ dissertation prepared under supervision of _____ by _____

Registration ID No _____ entitled _____

be accepted as fulfilling in part of Masters/ MPhil/Doctor of Philosophy Degree.

THESIS/ DISSERTATION APPROVAL COMMITTEE

1 _____ Supervisor	_____ Signature
-----------------------	--------------------

2 _____ Internal Examiner	_____ Signature
------------------------------	--------------------

3 _____ External Examiner	_____ Signature
------------------------------	--------------------

4 _____ External Examiner	_____ Signature
------------------------------	--------------------

Examiner 1: -----/100	Examiner 2: -----/100	} Total Marks 400
Examiner 3: -----/100	Examiner 4: -----/100	

*Final Average Score _____ (_____% , Grade _____)

Head of Department _____ Signature _____

Committee Chair/ Dean remarks _____

Approved/Not Approved

Date _____

Dean/ Head of Institute

* Calculation of Final score: Add score of all examiners, divide by 400 and multiply by 100

Distribution:

- 1 x copy to be maintained in the concerned Institute, Academics Directorate & Controller of Examinations.

ANNEX-PG-27

CHECK LIST FOR AWARD OF DEGREE

Name: _____

Registration No: _____

S. No.	List	Yes/ No
1.	Admission check list, admission response	
2.	Registration Form (Form No. PG: 1), Migration Form & Freezing of semester (Form No. PG: 2 & 3)	
3.	Supervisor Appointment and willingness (Form No. PG: 04/ 05)	
4.	SC formulation form (Form No. PG: 6/ PG:7)	
5.	Semester internal assessment form (Form No. PG :08)	
6.	Semester reports form (Form No. PG :10)	
7.	Report of Qualifying exam (course work) (Form No. PG:11)	
8.	IRB&EC approval letter (Form No. PG:13), Synopsis Defense Evaluation Report (Form No. PG:16)	
9.	Synopsis approval/ Qualifying exam-B) (Form No. PG :17)	
10.	Publication record form (Form No. PG:18)	
11.	Thesis/ Dissertation submission/ verification form (Form No. PG:19)	
12.	Dissertation foreign evaluation report (Form No. PG: 23)	
13.	Schedule of thesis defense & Abstract submission, evaluation report (Form No. PG:24, 24 (b) & 25)	
14.	Plagiarism report	
15.	Final Approval Report (Form No. PG-26)	
16.	Thesis/ Dissertation is written according to NUMS' guidelines (title, writing styles, references, etc.)	
17.	Certificate of approval and NOC for award of degree submission and to Controller of Examinations.	

Date: _____ Reviewed by: _____ Signature _____