



NUMS
NATIONAL UNIVERSITY
OF MEDICAL SCIENCES

**Students' Handbook for
Postgraduate Studies
(Revised Version 2024)**

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



It is an honor for me to head the National University of Medical Sciences (NUMS), which has already earned its place in academia within a short span of its creation. The credit for this goes to senior management, the faculty, and its staff, who accomplished the enormous task of building a national university through professionalism and an extraordinary commitment to achieving what it has in the past six years.

We can all take pride in our research achievements, including our linkages with renowned international universities and the local pharmaceutical industry, strengthening much-needed cooperation between academia and industry.

NUMS is destined to play a vanguard role in medical science by pursuing academics and research and completing mega projects like NUMS Institute of Advanced Studies and Research (NIASR) and Medical City in the I-17 Sector of the Federal Capital. Once accomplished, these projects will further elevate NUMS's position at the national and international levels, besides inspiring others to emulate its example in academics and research.

NUMS is heavily responsible for ensuring the quality of its educational offerings and training,

innovation, and pertinence in its research to serve the country and humanity at large. All those who join NUMS will be provided equal opportunities to grow as rounded individuals, taking merit and transparency as our guiding principles. In our staff and students, a passion is to be of service to humanity while embarking on a challenging but satisfying career.

With our diversely experienced faculty at NUMS constituent and affiliated institutes, our students will be trained to pay attention to detail and become a reference point for healthcare-related studies in the country.

At NUMS, we work hard to push the boundaries of knowledge, investing time and energy in creating a learning environment in all our fields of study and research. We intend to rise to the expectations of our society.

LT GEN WASIM ALAMGIR, 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. It should be read in conjunction with the University's Policies and Regulations.

Students are responsible for familiarizing themselves with this handbook and the university-wide policies and regulations. The information provided in this handbook may help them avoid unnecessary problems. Please do not hesitate to contact the Postgraduate Studies Office with any queries about this handbook.

2. About NUMS

The National University of Medical Sciences (NUMS) was established as a Federal Public Sector University through an Act of Parliament on October 31st, 2015. The honorable 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, and Medical and Nursing Colleges, making it the country's largest healthcare provider in terms of trajectory and patient volume.

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

NUMS envisages achieving its goals by adopting the best international standards and practices in medical education, training, and research and modernizing medical infrastructure. The benefits will have a broad 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 and developing partnerships with several advanced national and international universities and industrial, governmental, and community-based stakeholders through the national vision and plan to create a knowledge-based economy.

3. Vision of NUMS

The National University of Medical Sciences envisions a better quality of life for all by enhancing our contribution to healthcare, education, innovation, and research.

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 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:

- a. Innovation
- b. Integrity
- c. Inclusivity

6. Constituent College/ Institute for Postgraduate Studies

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

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

7. **Advance Studies and Research Office (ASRO).** The University has established the Advance Studies and Research Office (ASRO) 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.

It shall be responsible for the quality of all the graduate degree programs offered by the University and the research conducted under these programs. This office shall prepare a graduate Studies Prospectus describing the complete process for awarding a graduate degree and ensure that the booklet shall be available for the guidance of all graduate students.

It shall monitor the thesis/dissertation progress by the booklet's prescribed time. It includes but is not limited to, the timely approval of the research synopsis, evaluation of the research thesis/dissertation by the HEC guidelines and its submission, and the conduct of the open defense.

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"> • PhD • MPhil • MSc • MSPH • 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	MSN
Biological Sciences	PhD MS
Social Sciences	MPhil

The **Advance Studies and Research Office (ASRO)** provides administrative support for all postgraduate programs, courses, faculty, and students in the college/ institute. Each member of the ASRO 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 student and faculty support; if you have any questions, please do not hesitate to visit the office during the office hours mentioned below. The **NUMS Advance Studies and Research Office (ASRO)** is in NUMS Secretariat, Rawalpindi.

Office Hours: 08:00 AM - 04:00 PM

Tel: 051- 9270676

Email: acad.dte@numspak.edu.pk

8. 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, NIASR and any other constituent college/ institute as may be specified by the competent authority of the University from time to time.

S. #	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 Science of Dental Materials	
7.	Doctor of Philosophy in Pathology	AFPGMI/AFIP Rawalpindi
8.	Doctor of Philosophy in Biological Sciences	NUMS Campus
9.	Doctor of Philosophy in Clinical Psychology	
MPhil/ Master Programs		
10.	Master of Philosophy in Anatomy	AM College, Rawalpindi

11.	Master of Philosophy in Physiology	
12.	Master of Philosophy in Biochemistry	
13.	Master of Philosophy in Molecular Medicine	
14.	Master of Philosophy in Pharmacology	
15.	Master of Philosophy in Community Medicine	
16.	Master of Philosophy in Science of Dental Materials	
17.	Master of Philosophy in Chemical Pathology	AM College, AFPGMI/AFIP Rawalpindi
18.	Master of Philosophy in Microbiology	
19.	Master of Philosophy in Oral Pathology	AFPGMI/AFIP Rawalpindi
20.	Master of Philosophy in Psychology	NUMS Campus
21.	Master of Science in Transfusion Medicine	AFPGMI/AFIT Rawalpindi
22.	Master of Science in Nursing	AFPGMI/College of Nursing Rawalpindi
23.	Master of Science in Public Health	AFPGMI Rawalpindi
24.	Master of Science in Healthcare Administration	
25.	Master of Science in Prosthodontics	AFPGMI/AFID Rawalpindi
26.	Master of Science in Cardiac Anesthesia	AFPGMI/AFIC Rawalpindi
27.	Masters in Health Professions Education	NUMS Campus
28.	Master of Science in Human Genetics	
29.	Master of Science in Microbiology & Immunology	
30.	Master of Science in Biotechnology	
31.	Master of Science in Phytochemistry and Natural products	
32.	Masters of Science in Bioinformatics	
33.	Masters of Science in Nanomedicine	
34.	Master of Science in Clinical Psychology	
Diploma Program		
35.	Diploma in Cardiology	AFPGMI/AFIC Rawalpindi
Certificate Program		
36.	Certificate in Health Professions Education	NUMS Campus
37.	Clinical Certification In Hybrid Imaging (PET-CT Scan)	AFPGMI/ AFIRI
38.	Clinical Certification in General Body & Vascular	

	Interventional Radiology	
39.	Clinical Fellowship in Otolaryngology & Audio-Vestibular Rehabilitation	AFPGMI/ CMH RWP

9. Program Specification

For all NUMS postgraduate academic programs, standardized scheme of studies with the course work requirements is tabulated below:

S. No	Disciplines	NUMS Titles	Programs Requirements	Duration
Doctoral Programs				
1.	Doctorate	Doctor of Philosophy	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	Master of Philosophy	Credit Hours: 34 • Course work: 24 • Research work: 10	1.5-4 years
		MSc Healthcare Administration	Credit Hours: 36 • Course work: 24 • Practicum/Seminar: 06 • Research: 06	2-4 years
		MSPH	Credit Hours: 36 • Course work: 24 • Practicum: 02 • Research: 10	
		MHPE	Credit Hours: 34 • Course work: 24 • Internship: 04 • Research: 06	
3.	Clinical Disciplines	MSc Cardiac Anaesthesia	Credit Hours: 38 • Course work: 30 • Research: 06 • Internship: 02	2-4 years
		MS Transfusion Medicine	Credit Hours: 34 • Course work: 28 • Research: 06	2-4 years
		Diploma in Cardiology	Credit Hours: 33 • Course work: 27 • Internship: 06	2-3 years
4.	Biological Sciences	MS in Human Genetics	Credit Hours: 36 • Course work: 26 • Research work: 10	1.5-4 years
		MS in Microbiology & Immunology		
		MS in Biotechnology		

		MS in Phytochemistry and Natural products		
		Masters of Science in Bioinformatics		
		Masters of Science Nanomedicine		
5.	Psychology	Master of Science in Clinical Psychology	Credit Hours: 46 • Course work: 24 • Internship: 16 • Research work: 06	2-4 years
		MPhil Psychology	Credit Hours: 33 • Course work: 27 • Research work: 06	
6.	Clinical Fellowship	Clinical Fellowship in Otology & Audio-Vestibular Rehabilitation	Credit Hours: 36 • Course work: 30 • Research work: 06	02 years
7.	Clinical Certification	Clinical Certification In Hybrid Imaging (PET-CT Scan)	Credit Hours: 24 • Course work: 18 • Research work: 06	01 year
		Clinical Certification in General Body & Vascular Interventional Radiology	Credit Hours: 24 • Course work: 18 • Research work: 06	
		Palliative Care	Credit Hours: 12	06 Months
8.	Non Clinical Certification	Health care Administration	Credit Hours: 12	06 Months
		Health Professional Education		

10. Faculties at NUMS

Following are the Academic faculties at NUMS:

- a. Basic medical sciences
- b. Medicine and allied sciences
- c. Surgery and allied sciences
- d. Dentistry (dental sciences)
- e. Health management sciences
- f. Pathology
- g. Cardiovascular sciences
- h. Radiology and imaging
- i. Education including health professions education
- j. Multi-disciplinary studies (including humanism and behavioral sciences).

CHAPTER II

REGISTRATION AT NUMS

1. Registration of Student After Admission

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

2. Payment of Dues & Refund of Fees

- a. Fee structure of all PG programs are available on NUMS website.
- 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 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

5. Transfer of Credit Hours

- a. 'Transfer credit' is the granting of credit for academic work completed at any other/ same HEC recognized institution
- b. Inward migration shall be allowed only from such institutions as have been approved or accredited by these authorities
- c. 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
- d. 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
- e. Only relevant/common courses shall be transferred with grades to the opted program.
- f. The credits transferred are counted towards the degree requirement and GPA of the transferred credits shall be counted towards the calculation of CGPA
- g. The transfer of research work is permissible, provided that the host university accepts the research conducted at the parent university prior to

the credit transfer.

- h. For outward migrations from NUMS, no objection certificates, transcripts and other documents shall be issued by the Registrar

6. Change of Program:

- a. 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.
- b. 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.
- c. Transfer will depend on the availability of seat in the opted program.
- d. NUMS reserve the right to reject cases without assigning any reason.

7. Freezing/ Deferment of academic session

- a. 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.
- b. Freezing of first semester or deferment for one year may be requested in first semester under special circumstances, considered after approval of competent authority.
- c. 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)
- d. In case of deferment, student shall take up his / her studies in the following academic year. Subsequent requests for deferred admission will not be considered
- e. 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
- f. Students shall not seek admission to another course/ program at any institute without prior written approval from the concerned Dean
- g. 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

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 Academic Advisor/ 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, HoD of respective department will appoint following faculty members at least one month before the start of each semester.

- a. **Program Coordinator.** He/she will be responsible for liaison & coordination with all concerned.
- b. **Academic Advisor.** He/she is available as a first line of pastoral support and advice to the student. It is the responsibility of a student to inform the Academic Advisor immediately about any problem that are interfering with his/her coursework or progression through the program.
- c. **Course Instructors.** He/she shall also be responsible for:
 - 1) Provision of all the information regarding the course to the students i.e. Course title, code and credit hours, objectives/ outcomes, course content, teaching methodology, assessment type and schedule
 - 2) Conduct of classes as well as continuous assessment i.e quizzes, sessional, mid-semester examinations, practical examination, evaluation of written course related assignments
 - 3) Maintenance of course files
 - 4) Submission of assessment results after approval of HoD to the Examination Directorate.
 - 5) Submission of course file to the concerned HOD at the end of each semester/ academic year for record keeping purpose.

- 7. Supervisor Nomination.** The head of the relevant department shall, on approval from the Dean, nominate a supervisor, preferably within one month of the commencement of the first semester. The supervisor will give confirmation (Form # PG-05) for each student. The supervisor can be changed in case of exigencies or unavoidable circumstances (Form # PG-06).

Co-supervisor: Must be PhD/ FCPS/ Masters qualified and appointed with supervisor consent after approval from FBS. However, MPhil degree holders can be appointed as a Co-Supervisor in the Master Program. He/she must have expertise relevant to the project and support the student. While the main supervisor is the team leader and has overall responsibility, the co-supervisors add additional expertise. Together, they have complementary expertise.

8. Graduate Supervisory Committee for PhD Students (PhD- GSC)

- a. This shall be appointed for each student up to the second semester. This Committee must consist of at least four Ph.D. degree holders in the relevant field. The Committee shall have one internal member from a department other than the Supervisor and two external members from any other institution/research organization. In multidisciplinary research, more than two external members may be appointed
- b. Members of the **PhD- GSC** and even the Supervisor can be changed in case of difficulties or unavoidable circumstances. However, in case of any supervisor, co-supervisor, or committee member change, the change shall be incorporated in the prescribed form (Form # PG-06) accordingly and sent to the Academics Directorate after approval from the Dean
- c. The **Ph.D.- GSC** meetings shall be held at least once every six months during the research phase of the Ph.D. scholar in the department or by conference call for external members. The proceedings of SC meetings shall be recorded, and the Supervisor shall chair their meetings
- d. Supervisor through the concerned HoD shall send six monthly (bi-annual) reports of each PhD scholar, after completion of course work, in prescribed form to the Academics Directorate

9. Graduate Supervisory Committee for Master Programs (MP - GSC).

- a. This shall be appointed for all students during the first quarter of the second semester.
- b. For medical programs to fulfill PM&DC requirements, there shall be four faculty members comprising two internal from the department of the constituent institute, including the student's supervisor, and two external from another institute/university/ research organization. However, in other Master programs, two internal from the department of the constituent institute, including the student's supervisor, and one external member, will constitute the MP - GSC.
- c. Members' qualifications should be a Ph.D. with 3 years post Ph.D. experience or FCPS/MPhil/Master's degree holders in the relevant subject with 4 years post qualification experience.

10. Course Enrolments and Academic Activities

- a. The student will normally be required to submit coursework, attend an

examination, or a combination of both for assessment. In addition to the formal assessment, he/ she may be expected to carry out other assignments, such as class presentations. The concerned faculty will provide details of requirements for particular assessments during lectures.

- 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 occur.

11. Educational Strategy and Information Transfer

For all postgraduate academic programs, the curriculum will allow the students to work collaboratively through collective involvement/ participation. The curriculum has been made more systematic, clearly focusing on predefined learning objectives. Problem-based learning will be used throughout most of the curriculum. Students must complete the core curriculum comprehensively while covering extra topics or subjects they choose in electives.

12. Modes of Information Transfer (MIT)

Information transfer (MIT) modes include structured lectures (SL), small group discussions (SGD), workshops/ seminars/ conferences, journal club meetings (JCM), clinic-pathological conferences (CPC), laboratory work/ skill sessions, 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 to continue the academic program.

13. Award of Degree

All postgraduate students must fulfill all such requirements for the award of degrees as prescribed by the University in their respective chapters.

CHAPTER IV

PhD PROGRAMS

1. Preamble

Doctor of Philosophy (Ph.D.) programs are offered in basic medical sciences and pathology to impart focused research training to scholars and prepare skilled personnel with innovative research capabilities to make meaningful and productive contributions to society's socio-economic development.

2. Program Duration

The Ph.D. program's total duration is 3-8 years. However, under unforeseen circumstances, it may be extended to a maximum of 10 years after approval from AS&RB. The period for completing the Ph.D. will be counted from the date of admission to the final submission of the thesis.

3. General Information

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

4. Conduct of the Program (Annex-B)

- a. The Dean/ Head of the Institute shall be responsible for properly implementing the program curriculum and periodically monitoring students' progress through the HoD and program coordinator.
- b. The head of the concerned Department is responsible for overseeing the program overall and properly complying with NUMS policy regarding the conduct, assessment, and timely submission of semester assessment results to the Academic and Examination Directorates. He/she shall also assign the courses to the faculty members at the commencement of the academic session.
- c. As integral members of the program, scholars are required to submit duly filled PG forms, wherever required, in a timely manner. The guidelines for the timely submission of PG forms, provided in the handbooks, are to be strictly followed. Postgraduate (PG) forms (**Annex-C**) are downloadable from the NUMS website. <https://numspak.edu.pk/upload/media/RevisedPGForms20201603945999.pdf>

5. Degree Requirement

- a. **Residency.** There shall be a residency requirement for a period of one year.
Course Work. The 18 credit-hours coursework for this program consists of;

- 1) **Advanced Courses- Level 8 (09 Credit Hours)** - These post graduate-level courses provide depth in the candidate's area of specialization as well as prepare him/her for research.
- 2) **Elective Courses - Level 8 (09 Credit Hours)** - These post graduate-level courses allow the candidates to broaden his/her knowledge of the general discipline that they are working in. These courses will be covered in second semester. Students will select elective courses and intimate Academics Directorate with the approval of his/ her supervisor one month before the second semester.
- 3) Detail of courses are mentioned in the curriculum
- 4) After completion of course work of 18 CHs with CGPA ≥ 3.00 , scholar shall appear in the doctoral comprehensive examination.

6. Comprehensive Examination

- a. Following the completion of coursework with a CGPA ≥ 3.00 , every Ph.D. student shall be required to pass a comprehensive examination ($\geq 65\%$ marks) to be granted candidacy as a Ph.D. researcher, provided that if the student fails to pass the thorough test, he or she shall be allowed one more attempt to take the test within three years.
- b. It will test the scholar's ability to integrate and assimilate the knowledge obtained relevant to their field of research. The concerned Graduate Supervisory Committee will be responsible for The comprehensive examination in collaboration with NUMS Examination Directorate.
- c. The examination will be conducted in two parts in the following manner:
 - 1) **Part A- Written Comprehensive Examination**
 - a) Panel of examiners from GSC- PhD approved by AS&RB will prepare the written paper. A comprehensive examination consists of 100 marks written paper of 03 hours' duration. Assessment blueprint of Comprehensive Examination is as under:

S No	Topics	Questions	Marks	
1.	04 examination questions, all in the student's subject area, will be distributed as follows			
	A	Core Courses To demonstrate the understanding of advanced research methods and techniques used in the relevant filed	03	03x15
	B	Elective Courses	03	03x15
2.	Research proposal	To check the adequacy of the candidate's background preparation to pursue the proposed research	01	01x10
Total			07	100

The student result will be notified by the Controller of the Examination

2) Oral Examination

- a. It shall be conducted only after the scholar has qualified for Part A of the Comprehensive examination.
- b. Scholars shall submit a research proposal in the prescribed format. After the supervisor and the committee approve the synopsis, the student will submit two hard copies, which will be forwarded to the concerned Dean's Office for the synopsis defense.
- c. The scholars shall present their synopsis before the Ph.D.- GSC with the Dean being the Chair. Approval of the synopsis shall be obtained using the prescribed evaluation score form.
- d. The scholar has to defend their synopsis as Part of this oral examination. The Oral Examination Committee shall determine by majority vote. The assessment will be graded as Pass/ Fail. Only pass scholars will be allowed to proceed to the doctoral research.
- e. Ph.D.- GSC may recommend changes in the synopsis, and the scholar shall repeat the presentation within the stipulated time. A majority vote shall finalize the approval of the synopsis
- f. If any observation/ revision in the research title/ project is needed, the student will resubmit it through the concerned institute with all the above formalities after approval from FBS.
- g. Upon a failure in the oral part, each committee member will submit a duly signed comment page, which will document the reasons for failure, to the Academic and Examination Directorates of NUMS through the concerned Dean. A duplicate copy of these shall also be provided to the student.
- h. IRB approval shall be taken wherever required
- i. A scholar who has passed the comprehensive examination shall be deemed to have become a candidate for the Ph.D. degree.

7. Research

- a. Ph.D. scholars shall start research under their Supervisor and keep the graduate supervisory committee members updated on the progress of the research. They are required to complete 30 credits of Ph.D. research within the stipulated time.
- b. All candidates must produce a Ph.D. dissertation consisting of original research of high impact. They shall write the dissertation in the NUMS-prescribed format. They will submit the draft to their Supervisor, who will review it thoroughly. The Supervisor must conduct a plagiarism test on the dissertation before submitting it for evaluation. The Supervisor shall check the similarity index using Turnitin software, which should be <19% per HEC's guidelines.
- c. If satisfied, the Supervisor will recommend that the thesis be submitted for evaluation. The scholar will then submit the prescribed dissertation verification form (Form #PG-13) with two copies of the soft-bound draft dissertation to the concerned Dean's Office through HOD. NUMS Academic Directorate will be intimated through acknowledgment receipt through the Dean's office.

- d. PhD–GSC shall evaluate the Ph.D. dissertation. The dissertation Evaluation Report, in the prescribed form, shall be sent to the Dean within four weeks.
- e. If any member of the PhD–GSC suggests an amendment, the Supervisor shall ensure that the necessary alterations are properly made in the dissertation.
- f. After the evaluation of the dissertation by The - Graduate Supervisory Committee, the dissertation shall be evaluated by external experts, as approved by the Advanced Studies and Research Board (AS&RB), who may be either
 - PhD faculty member from the world's top 500 universities ranked by the Times Higher Education or QS World Ranking in the year corresponding to the dissertation evaluation year OR
 - Pakistan-based Distinguished National Professors, Meritorious Professors from any national university, professors from top universities ranked by HEC, or professors from any Pakistani University having a minimum H-Index of 30 for Sciences, 15 for Social Sciences, or 8 for Art & Humanities as determined by Web of Science. OR
 - At least one external expert qualifies for any of the conditions mentioned above if the Ph.D. candidate has two W-category papers from their dissertation research in a peer-reviewed journal classified by the HEC in category W for Sciences and X or above for Social Sciences.
- g. Supervisors of all Ph.D. programs shall send names of at least two/ three external experts during the research phase of their Ph.D. students to the Academics Directorate. The following general guidelines shall, at least, be observed while selecting an external evaluator:
 - **Relevance of Expertise:** in the same or related fields as in the dissertation.
 - **No Conflict of Interest:** personal, financial, or professional stakes in a particular decision or outcome.
 - **Objectivity:** capable of making unbiased evaluations.
 - **Diversity:** in terms of geography, culture, professional backgrounds, etc.
 - **Reputation:** must be good in the field, with a track record of fair and thorough evaluations.
 - **Availability:** should have the time and availability to review the dissertation.
 - **Professionalism:** capable of conducting themselves professionally and respectfully throughout the evaluation and defense process (if applicable).
 - **Communication:** capable of providing clear and constructive feedback on the dissertation.
 - **Confidentiality:** capable of maintaining confidentiality and protecting the intellectual property of the dissertation.
 - **Compatibility:** well-versed with the research methodology, approach, and theories used in the dissertation.
- h. The dissertation will be sent through the Dean's office to the Academics Directorate, which will then send it to an external expert approved by AS&RB.
- i. If external experts suggest any amendments, the Supervisor shall ensure that necessary alterations are properly made in the dissertation. If external experts give a satisfactory report, it will be considered approved. However, if the report is not received from external experts within two months, the dissertation shall be sent to a second or third external expert from the approved list.
- j. The Dean shall review and send the external expert/s report through the Academics Directorate for approval by the Advanced Studies & Research Board.

- k. The candidate shall present a research paper in a seminar, national, or international conference and publish an abstract in the conference proceedings. The candidate shall submit evidence of participation to the Academics Directorate.

8. Dissertation/Thesis defense:

- a. There shall be an open defense of the Ph.D. dissertation.
- b. Public Announcements shall be made on the university website so that anyone interested can participate.
- c. The final defense of the dissertation shall be in the presence of the Dean and Ph.D.- GSC
- d. The dissertation will be graded using the prescribed evaluation score form. However, its scoring will not be considered for calculating the CGPA.
- e. The Ph.D.- GSC may approve the dissertation as such, recommend minor or major changes in the dissertation, not approve and repeat the presentation if required.
- f. The final approved bound copies shall be submitted to the HoD through the supervisor within one month after the dissertation/thesis defense. The date of notification of defense will be taken as the degree award date.
- g. Two hard copies and a soft copy will be shared with Acad Dte. After scrutiny, Acad Dte will send one hard copy to the Exam directorate for the degree award and another copy to the library.

9. Research Publication. For the award of PhD degree, a PhD researcher shall be required to publish research articles meeting the following criteria:

- a. At least: Sciences; One research article in W category journal. In Social Science, One research article in X category journal or two research articles in Y category journals
- b. The PhD researcher shall be the first author of these publications.
- c. The research article shall be relevant to the PhD researcher's research work.
- d. The article shall be published after approval of the research synopsis.
- e. The article shall be published in a relevant research journal.

10. Guidelines for Synopsis & Dissertation/Thesis Writing. (Available on NUMS website). Each PhD researcher shall write a doctoral dissertation reflecting the research's relevance, credibility, effectiveness, and legitimacy. The word count of the dissertation shall be min. 30000. The dissertation must be an original and innovative contribution to knowledge that contributes to solving socioeconomic problems. To improve the quality of a doctoral dissertation, some regulations have been suggested in the following areas:

- a. **Selection of Research Area.** The research area of the PhD researcher shall:
 - 1) Correspond to the community needs at regional and local levels and comply with the priority national research agenda.
 - 2) Reflect the basic and pure research.
 - 3) Signify emerging areas of research that coincide preferably with sustainable development goals (SDGs).
- b. **Quality in Reporting.** The quality of presentation and reporting in the dissertation shall reflect the following characteristics:

- a. The document is well written.
 - b. The contents are balanced, well organized, appropriately styled, clearly structured, and well-cohered, and
 - c. The document is free from grammatical and spelling errors and flawed terminology.
 - d. Minor shortcomings have been addressed, such as inaccurate use of acronyms and clumsy-looking sentence structure.
 - e. Quantitative research proposals must include a valid statistical design for data analysis.
 - f. Formatting shall be compatible with international standards.
- c. Methodological Quality.** Ensuring the technical soundness of their PhD dissertations is integral to producing PhD researchers capable of conducting research independently. The following guidelines shall be useful in making the Ph.D. research methodologically sound:
- d. Guidelines ensuring the quality of Qualitative Research:** A Ph.D. research dissertation, grounded in Qualitative Research Methods, must address the following pivotal questions:
- a. “Does the research, as reported, illuminate the subjective meaning, actions and contexts of those being researched?”
 - b. “Is there evidence of the adaption and responsiveness of the research design to the circumstances and issues of real-life social settings met during the course of the study?”
 - c. “Does the sample produce the type of knowledge necessary to understand the structures and processes within which the individuals or situations are located?”
 - d. “Is the description provided detailed enough to allow the researcher or reader to interpret the meaning and context of what is being researched?”
 - e. “How are the different sources of knowledge about the same issue compared and contrasted?”
 - f. “Are subjective perceptions and experiences treated as knowledge in their own right?”
 - g. “How does the research move from a description of the data through quotation or examples to an analysis and interpretation of the meaning and significance of it?”
- e. Guidelines ensuring the quality of Quantitative Research:** A PhD dissertation with Quantitative Research methods should satisfy, at least, the following questions
- a) Reliability - are the results repeatable?
 - b) Validity - does it measure what it says?
 - c) Internal validity - do the research results indicate what they appear to be?
 - d) External validity - can the results be generalized to other settings (ecological validity) and to other populations (population validity)?
 - e) Replicability - are the results of the study reproducible?
- f. Appropriateness of the Methods to the Aims of the Study**

- a) To achieve the research objectives, the alignment of the research approach and methods is necessary. Therefore, a PhD dissertation, at least, shall:
- b) Reflect a fair proportion of latest knowledge of contemporary techniques and methods in relation to study objectives.
- c) Contain detailed and easily comprehensible discussions regarding the applied methods and techniques.
- d) Justify the use of methods and techniques to achieve study objectives.
- e) Show evaluation of obtained results in relation with study objectives.
And:
 - (1) The methods and techniques used should justify the results obtained.
 - (2) The obtained results should support the study objectives.

g. Relevance to the Policy and Practice. The research should have significantly answered questions related to policy and practice in that area, establishing its usefulness and usability. Accordingly, a PhD dissertation, at least, shall:

- a) Reflect judicious evaluation of study results in relation with policy related aims and goals undertaken while starting the research.
- b) Discuss the practical implications of the study results in association with the developing practices in that area.
- c) Establish usefulness of the study results for devising policy as stated in the beginning.
- d) Discuss how the resulting policy would be useful for the organization/society. And:
- e) The study output should be significant enough to be published or patented.
- f) The assessment of the results performed by the author must not be superficial and lacking substance.

11. Award of MS/MPhil Degree During PhD Studies A student who successfully completes coursework and passes the comprehensive examination but is unable to defend a PhD synopsis/research proposal or does not complete the required research for obtaining a PhD degree within the specified timeframe, may be granted a graduate level diploma/certificate/transcripts or another MS/MPhil upon completion of regulatory authority requirements.

12. Award of Doctoral Degree: A PhD 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. Passed comprehensive examination
- c. Research work of 30 CHs
- d. Research paper(s) as its first author during his or her doctoral studies in an HEC approved W category in all disciplines except social sciences (1X or 2Y category) in HEC Journal Recognition System (HJRS)
- e. Satisfactory dissertation evaluation report/s from external expert/s

f. Successful open defense of dissertation

13. Reporting Requirements. The following documents shall be submitted to the HEC after the completion of studies:

- a. A soft copy of PhD Dissertation for inclusion in PhD Country Directory and attestation of degree by the HEC.
- b. PhD Country Directory Proforma, signed by the Principal Supervisor, Controller of Examination and the Vice Chancellor.

CHAPTER V

MASTER PROGRAMS

1. Preamble

NUMS offers Master's programs in different disciplines of basic medical, clinical, biological, and social sciences at its constituent institutions, with the aim of creating high-quality human resources in the country.

Students shall be required to submit duly filled PG forms, wherever required, in time for the smooth running of the program. Guidelines for the timely submission of PG forms, given in handbooks, shall be followed. Postgraduate (PG) forms (Annex-C) downloadable from the NUMS website:

<https://numspak.edu.pk/upload/media/RevisedPGForms20201603945999.pdf>

Through the concerned HoD, the supervisor shall send six monthly (bi-annual) reports of each student, after completion of course work, in a prescribed form to the Academics Directorate.

2. Program Duration

The duration of all Master programs is 1.5-4 years. The period will be counted from the commencement date of classes to the final submission of the thesis.

3. Graduate Supervisory Committee for Masters Programs

This shall be appointed for all students up to the semester. It shall consist of four members (two internal from the department, including the student's supervisor, and two external members from another institution/research organization) for medical programs to fulfill the PM&DC requirement. However, in other Master programs, one external and two internal members will constitute the MP–GSC.

In the case of multidisciplinary research, the Pro Vice-Chancellor (Academics) may approve more than one external supervisor.

4. Conduct of Program

- a. The Dean/ Head of the Institute shall be responsible for properly implementing the program curriculum and periodically monitoring students' progress through the HoD and program coordinator. The head of the concerned Department is responsible for the overall supervision of the program and proper compliance with NUMS policy for the conduct, assessment, and timely submission of semester assessment results to the Academic and Examination Directorates. He/she shall also assign the courses to the faculty members at the commencement of the academic session.
- b. Students shall be required to submit duly filled postgraduate forms (**Annex-A**) downloadable from the NUMS website: <https://numspak.edu.pk/upload/media/RevisedPGForms20201603945999.pdf> to be used for doctoral studies
- c. Students will submit their feedback at the end of each semester.
- d. The course-related assignments shall be given to the students by the faculty

members, and quizzes, sessional, and mid-semester examinations shall be conducted internally by the HODs through faculty members. Proper course files shall be maintained. Internal assessment results shall be compiled and furnished to the Examination Directorate. A student may improve or repeat the courses as per NUMS policy.

- e. The Examination Directorate shall conduct end-semester examinations. The supervisor, through the concerned HoD/ Dean, shall send a bi-annual report of each student in a prescribed form to the Academics Directorate by the end of the third semester and fourth semester if research work still needs to be completed.
- f. **Guidelines for Synopsis & Dissertation/ Thesis Writing.** Available on NUMS website/ PG Students handbook.

5. Degree Requirement

- a. **Course work.** Minimum course work requirement for Master program is 24 CHs. Details of course work of each program is mentioned in the curriculum
 - b. **Research.** 6 -10 CHs depending on program requirement. However, in clinical subjects, student may opt for research or article publication
 - c. **Synopsis Approval.**
 - 1) Every student is required to submit a research synopsis after approval from supervisory committee, (Form # PG-09) in first month of the third semester to the department.
 - 2) **Guidelines for Synopsis & Dissertation/ Thesis Writing.** Scholar shall submit a research proposal on prescribed format. These are available on NUMS website
 - 3) The students shall present their synopsis before the MP-GSC chaired by Head of Institution/Dean and its approval shall be done on prescribed evaluation score form. (Form # PG-10)
 - 4) The MP-GSC may recommend changes in the synopsis and student shall repeat presentation within stipulated time. The approval of synopsis shall be finalized by a majority vote. (Form # PG-11)
 - 5) 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
 - 6) IRB approval shall be taken wherever required
5. **Research Bench fee.** NUMS will pay Rs. 100,000/—to MPhil/ MS students for research purposes on a case-to-case basis after recommendations from FBS.
- ## 6. Research Work.
- a. The research work will be carried out under the direct guidance and supervision of the supervisor, who will keep the members of the MP-GSC abreast of the progress of the research work as per the procedures prevalent in the institution.
 - b. Research work should be completed within the stipulated time. However, the committee may extend the time for concurrence from the Academics Directorate, provided the supervisor certifies that a student has completed 50% of the research work.

- c. All students shall write the thesis in the NUMS-prescribed format.
- d. The word count of the thesis shall be a minimum of 15000.
- e. **Thesis Preparation/ Submission.** Every student should write their thesis in the prescribed manner and format; after careful review and similarity index check using Turnitin software, which should be <19% per HEC's guidelines, the concerned supervisor will recommend the thesis for final evaluation. The student will submit the prescribed thesis verification form (Form #PG-13) with two copies of the softbound draft thesis to the concerned Dean's Office through the concerned departmental head.
- f. **Thesis Evaluation.** MP–GSC will review and send the thesis evaluation report in the prescribed form to the Dean's office within four weeks. If MP–GSC gives a satisfactory report, the student will be allowed to proceed with the defense of the thesis examination. If the examiners suggest changes/ amendments, they will be incorporated into the thesis.

7. Thesis Defense.

- a. After receiving a satisfactory thesis evaluation report, the Dean will schedule a date for the final defense of the thesis under intimation to the Academics Directorate/ Controller of Examinations/ Director QA and Heads of the concerned College or Institute.
- b. The student will be allowed to go for thesis defense only if they have completed 24 CH of coursework with CGPA \geq 2.50.
- c. The final defense of the thesis shall be in the presence of the Dean and MP–GSC. The grading of thesis research shall be done using the prescribed evaluation score form. However, its scoring shall not be considered for CGPA calculation.
- d. The examiners may approve the thesis as such, recommend minor or major changes in the dissertation, and not approve and repeat the presentation if required.
- e. The final approved bound copies shall be submitted to the HoD through the supervisor within one month after the thesis defense. The date of signatures by the Dean will be taken as the degree award date.
- f. Two hard copies and a soft copy shall be shared with Acad Dte. Acad Dte, in turn, will send, after scrutiny, one hard copy to the Exam directorate for the award of the degree and one copy to the library.
- g. The Academics Directorate will check the documents required for the degree award and forward the dossier, result, and bound copies of the thesis to the Examination Directorate for record and gazette notification.

8. Research Paper.

In MPhil, MS, and MHPE programs, each student must submit one research paper acknowledging the concerned journal to the corresponding author in any of the PM&DC/HEC-approved journals.

Two Master's students may be allowed to fulfill the publication requirement after approval of FBS.

9. Practicum (On-the-job Assignment).

The 02 CH practicum is offered in MSPH and MSc HCA. The goal of the practicum is to provide a structured and supervised

opportunity for the student to apply the theories, principles, knowledge, and skills learned in the classroom in a practice setting. The practice experience occurs in a carefully selected health services organization approved by the Programme Coordinator and is supervised by faculty and an immediate supervisor/mentor. This takes into account the transition from education to professional practice.

a. Prerequisites and Requirements:

- Students must have completed all the coursework and defended their dissertations before registering for the practicum.
- In consultation with the practice site or organization, the student must develop a short, formal proposal of the work or project to be accomplished by the student during the assignment.
- The student will complete the assigned hours of practicum experience with the selected organization.
- The student will write a well-constructed report (10-15 pages, excluding appendices) detailing their experience.
- An immediate supervisor/mentor of the participating organization will evaluate the student.

b. Role of Immediate Supervisor/Mentor

- Responsible for the student's learning during the practicum.
- Serves as a role model for the student and advises the student routinely.
- Periodically consults responsible faculty on students' progress.
- Completes a student evaluation form at the end of the practicum.

10. Award of Master's degree.

The student must have completed total credit hours of coursework with a CGPA > 2.50 and research work of 06 - 10 credit hours followed by a successful thesis defense. In MPhil/MS/ MHPE, one research paper was submitted to any of the PM&DC / HEC-approved journals with acknowledgment of the concerned journal to the corresponding author. However, in Master of Clinical Programs, students may conduct 06 credit hours of research followed by a thesis or submit one research paper in any of the PM&DC / HEC-approved journals.

11. MPHIL PROGRAM

a. Introduction.

This program aims to create high-quality human resources in the country's diversified medical and social sciences fields. NUMS offers MPhil programs in multiple disciplines of basic medical sciences and pathology. Well-qualified and experienced faculty are available at our constituent institutions.

b. General Scheme of Studies of MPhil Program.

Semester Duration	18 weeks
Course Duration	2-3 years
Regular Semesters	04
Course Load per Semester	12 Credit Hours
Core Courses	24 Credit Hours

Research	10 Credit Hours
Total	34 Credit Hours

c. Conduct of MPhil Course.

1) 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	Research Work	04 Credit Hours
Summer Semester	Any deficient course/ improvement	
4th Semester	Research Work	06 Credit Hours

2) Details of courses for each MPhil program is mentioned in its curriculum

3) Course instructor will maintain the results of quizzes, sessional, mid semester and practical exam. Exam and Academics directorate will be intimated before end semester exam

4) **Noncredit course.** Student may take additional elective course as a noncredit course with permission of HoD for acquisition of knowledge

5) 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

12. MASTER PROGRAMS

Master of Science in Public Health

a. Introduction

MSPH curriculum emphasizes basic public health sciences and 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 consists of individual fieldwork, group fieldwork, field visits, assignments, and class exercises in all semesters.

b. General Scheme of Studies of MSPH Program

Points	Details
Degree Offered	MSPH
Duration	2-3 Years
Total Credit Hours	36 Credit Hours
1. Core Course	24 Credit Hours
2. Practicum	02
3. MSPH Thesis Research	10 credit Hours

b. Details of courses is mentioned in its curriculum

MSc Healthcare Administration

a. Introduction

Effective management in health care is the key to success in implementing programs in the health sector. The significance of MSc Healthcare Administration is much higher in the 21st century than in previous years. MSc

Healthcare Administration will be a two-year program providing in-depth education in managing healthcare problems. The qualified faculty of health management at Armed Forces Post Graduate Medical Institute (AFPGMI) Rawalpindi will carry out the instructional and training components. The course award will require evidence of satisfactory course completion and research. All students will be assessed during the course and through end-semester examinations per the 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
Total Credit Hours		36 Credit hours

c. Details of courses is mentioned in its curriculum

MSc in Cardiac Anesthesia

a. Introduction

The National University of Medical Sciences (NUMS), Islamabad offers this program. The two-year training will be done at the Department of Cardiac Anesthesia & 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 for acquiring the knowledge and developing the technical skills necessary to provide superb clinical care and cultivate high-quality research.

b. Duration of Program & Scheme of study

The MSc in Cardiac Anesthesia is a 24-month program consisting of core courses and clinical training in the wards. Four regular semesters of 16 weeks and 38 credit hours must be completed. Successful completion of the MSc will require a minimum CGPA of 2.50.

c. Details of courses are mentioned in its curriculum.

d. Log Book. The program coordinator will help maintain proper logbooks of clinical procedures and cases and written reflections by all students. The supervisors will comment on and endorse the reflections.

Degree Offered	MSc in Cardiac Anesthesia
Duration	24 months
Total semesters	04
Course load per semester	09-12 hrs
Core courses	24 hrs
Elective courses	06 hrs
Research thesis/ article publication	06 hrs

Internship	02 CH
Total CHs	38 Hrs

Masters in Health Professions Education (MHPE)

MHPE is a two-year program that aims to develop medical educationists who will help improve healthcare delivery quality through improvements in health professional education with an emphasis on inter-professional education (IPE).

The program aims to improve patient care by producing leaders who, via understanding the interrelationship of theory, research, and clinical practice, can ensure continuous use of evidence-based insights while making informed decisions in the education of all health professions at national and international levels.

Scheme of Study

Details	Masters
Program Duration	02 years
Number of Semesters (excluding Summer semester)	04
Course Load per Semester (excluding Summer semester)	09 CH
Core Courses	24 CH
Internship	04 CHs
Remedial (summer semester)	
Thesis / Research	06 CH
Total Credit Hours	34 CH

Master Programs in Biological Sciences

Duration of the Program & Scheme of Study

Degree Offered	MS
Duration	2-3 Years
Total Credit Hours	36 Credit Hours
Course Work	26 Credit Hours
➤ Core Course	➤ 12 Credit Hours
➤ Elective Course	➤ 12 Credit Hours
➤ Seminar	➤ 2 credit hours
MS Research Work	10 CHs

MS in Human Genetics

The vision behind this post-graduate program is to produce highly skilled professionals who will be actively engaged in research in human genetics. Pakistan is facing the challenge of the ever-increasing burden of genetic disorders due to the high incidence of consanguineous marriages, cancer, and other non-communicable diseases. Our graduates will contribute towards mitigating these challenges by undertaking basic and translational research using the latest tools and techniques in molecular biology. The Department of Biological Sciences faculty members are highly qualified and experienced PhDs with diverse research expertise and backgrounds. This set of highly competent faculty members will provide an educational program in human genetics at par with any internationally recognized university. The emphasis of this post-

graduate program will be problem-solving research for the benefit of our patients and the community at large. The program aims to nurture confident individuals who contribute to the nation's growth.

MS in Microbiology & Immunology

The MS program in Microbiology & Immunology will provide exceptional avenues for graduate training in advanced concepts of Microbiology and immunology at the MS level.

In line with the department faculty's diverse expertise, core research areas include bacteriology, virology, environmental microbiology, microbial ecology, microbial physiology, immunology, bacterial and viral-based infectious diseases, antimicrobial resistance, microbiomes, and antimicrobials. Particular emphasis is placed on tackling scientific problems with a multidisciplinary approach.

In this regard, the department's primary focus is on national and international research collaborations with major research groups and industries. Our graduate program will provide a strong foundation in microbiology and a strong scientific background to research basic, applied, advanced, and emerging areas of the field.

MS in Biotechnology

The vision behind the post-graduate program in Biotechnology is to produce competent Biotechnologists who can employ quality processes and applications, which will profoundly influence the existing paradigm of agricultural, industrial, healthcare, and environmental Biotechnology by providing a sustainable competitive edge to society. The Department of Biological Sciences faculty members obtained Ph.D. and post-Ph.D. experience from various technologically advanced countries and diverse research and teaching expertise. This diverse skill set of highly competent faculty members will provide the Biotechnology Educational Program with the impetus to generate a quality workforce. The post-graduate program will also create awareness about the potential of Biotechnology with economic and socio-ethical implications.

Moreover, this program is designed to instill the spirit of innovation and creativity in young minds with sound research aptitude. The program aims to nurture confident individuals who contribute to the nation's growth. This program in our department will not only increase the employability of students but will also increase the potential of biotechnology-related startups and entrepreneurship in Pakistan.

MS in Photochemistry and Natural Products

Our graduate program will provide a new generation of scientists with a solid, broad-spectrum background in the chemical, biological, phytochemical, and technological aspects of drug discovery from natural sources. This program aims to train students in the methods used to analyze and characterize medicinal natural products and ethno-pharmaceutical uses of plants from traditional systems of medicine.

Masters of Science in Bioinformatics

This program has been conceived in light of the Higher Education Commission,

Pakistan, for the MS Bioinformatics program framework. The degree program is designed to provide our postgraduates (PGs) an opportunity to acquire advanced bioinformatics knowledge required for a researcher to interpret and decipher the information embedded in complex biological processes. Our program will provide a research-based educational platform for researchers, providing them with state-of-the-art research facilities and opportunities to meet research standards nationally and internationally.

Masters of Science in Nanomedicine

This cross-disciplinary program will provide robust scientific understanding and exceptional opportunities for graduate students at the MS level in Nanomedicine, an exciting and emerging discipline. This new Master's degree program is the first of its kind offered in Pakistan and will produce highly qualified academicians, researchers, and future leaders in the field of Nanomedicine. The course will focus on the application of nanotechnology in the medical field to develop nanomaterials for diagnosis, monitoring, control, prevention, and treatment of diseases.

MS CLINICAL PSYCHOLOGY

a. General Scheme of Studies of Diploma Program.

Semester Duration	18 weeks
Course Duration	2 Year
Number of Regular Semesters	04
Coursework	24
Internship	16 Credit Hours
Research	06 Credit Hours
Total Credit Hours	46 Credit Hours

Master of Science in Nursing (MSN)

a. Introduction

The duration of the Master of Science in Nursing(MSN)program is two years, countable from the commencement of classes to the submission of the thesis; however, extendable for a further one year. The program is focused on various specialties. Four semesters comprise three semesters of clinical-based coursework and research. The students must complete at least 38 credit hours of coursework, including 6 credits for their thesis. The practicum//research work may be carried out in hospitals, research/healthcare, or community health work organizations.

b. General Scheme of Studies of Diploma Program.

Semester Duration	18 weeks
Course Duration	2 Year
Number of Regular Semesters	04-06
Course Load per Semester	09-12 Credit Hours
Course work	32 Credit Hours
Electives	04
Practicum	06

Thesis	06
Total Credit Hours	48 Credit Hours

13. POSTGRADUATE DIPLOMA IN CARDIOLOGY (DIP CARD)

a. Aim

This program aims to train medical graduates with professional skills in the clinical fields so that they can apply their acquired expertise in the 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	06 Credit Hours
Total Credit Hours	36 Credit Hours

c. Log Book.

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

14. CERTIFICATE IN HEALTH PROFESSION EDUCATION

a. Duration of Program & Scheme of Studies.

Duration of Program is 6 months during which 1 x Contact Session of 5 days' duration each will be held, at the beginning of program

b. Frequency. Once a Year

c. Credits: 12 Credit Hours

d. No of Courses: 04

e. Description of Course & Scheme of Study.

The Course will be hybrid, with a face to face and online self-study components. Each course will be of 05 to 06-week duration

f. Overview of Learning and Instruction.

1) One face to face sessions of a 5 days near the start of program

2) Distance Learning

Distance learning will use Moodle software customized for the program. Students and faculty will use it to access learning materials, discuss topics, and assess each course.

Assessment Plan: Assessment will be continuous, end-of-course summative, and certification exams.

15. Clinical Certification in Hybrid Imaging (PET-CT SCAN)

a. Introduction

This program will train the diagnostic radiologists from the Armed Forces and

civil sectors in the sub-specialty of hybrid imaging. The trained doctors with this clinical fellowship will be able to work independently and more efficiently in the PET/ CT scan and Radiology Departments. Emerging hybrid imaging techniques and their evolving roles have created opportunities and challenges for nuclear medicine practitioners and changes in traditional professional relationships with other healthcare disciplines.

b. General Scheme of Studies

Course Duration	12 months
Number of Regular Semesters	03
Course Load per Semester	06-09 Credit Hours
Course work	18 Credit Hours
Research	06
Total Credit Hours	24 Credit Hours

16. Clinical Certification in General Body & Vascular Interventional Radiology

a. Introduction

This Clinical Fellowship program provides a firm foundation in the practice of General Body & Vascular Interventional Radiology to radiologists who wish to enhance their careers in this field. Since Pakistan is still far behind the developed world in the field of General Body & Vascular Interventional Radiology, this program will serve as an ice breaker to provide the country with much-needed support in this field and a perfect career opportunity for the program participants.

b. General Scheme of Studies

Course Duration	12 months
Number of Regular Semesters	03
Course Load per Semester	06-09 Credit Hours
Course work	18 Credit Hours
Research	06
Total Credit Hours	24 Credit Hours

17. Clinical Fellowship in Otolaryngology & Audio-Vestibular Rehabilitation

a. Introduction

With the growing noise pollution and the growing use of ototoxic medicines, hearing loss is becoming a much bigger and growing hazard than it ever used to be. Otolaryngology and Audiovisual Rehabilitation are now full clinical sciences concerned with the treatment and Audiovisual Rehabilitation of individuals with Audiovisual disorders. Most developed countries run post-fellowship courses in Otolaryngology and audiology for a duration ranging from one to five years. Unfortunately, this science is not so well developed in Pakistan.

The only courses offered so far are BSc/MSc Audiology, which can be done even

by a non-doctor and is limited to hearing evaluation and fitting of hearing aids. In the Armed Forces, hearing loss is a disease included among a soldier's professional hazards. Every soldier involved in a combat operation and exposed to high-intensity noise of firearms or military vehicles has some hearing loss, depending on the duration of exposure. The incidence of auditory injury among soldiers is rising by 13 percent to 18 percent a year. This is in addition to the conductive deafness caused by ear drum perforation due to the pressure effect of firearms.

Clinical Fellowship in Otology & Audio-Vestibular Rehabilitation is the first program in Pakistan. It is structured to provide the theoretical, scientific, clinical, research, and vocational skills necessary to practice enhanced Otology, audio-vestibular medicine, and audiology. The program is designed for ENT surgeons who have successfully completed the qualification of FCPS (or equivalent) and wish to develop or enhance their careers or specialize in the important aspect of Otology and hearing Rehabilitation.

b. General Scheme of Studies

Course Duration	02 years
Number of Regular Semesters	04
Course Load per Semester	09-12 Credit Hours
Course work	30 Credit Hours
Research	06 Credit Hours
Total Credit Hours	36 Credit Hours

CHAPTER VI

ASSESSMENTS & EXAMINATIONS

1. NUMS shall follow a semester-based examination system for all postgraduate and non-medical undergraduate academic programs, each having two regular semesters in the academic year: The Spring semester from January to May and the Fall semester from August to December. However, in special circumstances, the program can be started at a time other than the mentioned above with VC's approval. Each regular semester shall be for 18 weeks (16 weeks of teaching & learning and 2 weeks for examination). There is an additional summer semester of 09 weeks with weekly contact hours for a course being double the regular semester.
2. At the beginning of each semester, the teacher of each course guides the students through the successful completion of the course requirements.
3. Attendance at a minimum of 75% (85% for Nursing) in each course is mandatory. In case of deficient attendance, the student must repeat the course either in the summer semester or whenever it is offered. Where required, the course instructor shall report the student's absences to the HoD.
4. Students may opt for deficient/ improvement courses in the summer semester or whenever the course is offered. However, in deficient/ improvement courses, the student is required to complete all formalities applicable to repeating a course, i.e., sessional, mid-semester examination, project, assignments, quiz, etc., and End-Semester Examination.
5. **Taking Alternative Elective/Optional Course.** A student may take an alternative elective for repetition with the Dean's or HOD's approval. A student's transcript shall show the grades of both the courses. However, a better grade will be used to compute the CGPA.
6. **Noncredit courses.** Courses may be taught as noncredit courses as well. The assessment marks of these courses shall not contribute towards CGPA.
7. **Assessment Management**
 - a. **NUMS Examination Directorate:**
 1. The Controller of Examinations shall prepare the examination calendar and conduct all examinations during an academic year.
 2. The date sheet of all examinations shall be prepared by the Controller of Examinations in consultation with the constituent and affiliated institutions at least three months before the commencement of the final examination.
 3. The University will publish the examination schedule for written and practical examinations on the NUMS website and send a copy to the concerned institution.
 4. End Semester examinations in semester-based programs shall be held in the 18th week of semester initiation.
 5. In case of unforeseen circumstances, the Controller of Examinations may change the date sheet and assessment modalities (online)
 6. Examination Directorate NUMS will be responsible for collecting all exam

- questions/cases, scheduling and conducting moderation of written question papers, marking practical exams for the final examination, and compiling results as per NUMS and regularity authority guidelines.
7. The Examination Directorate will conduct post-hoc exams and schedule Post-Hoc meetings with members of the NDHPE Team before the results are announced.
 8. The exam Directorate shall share the template prepared by NDHPE with the faculty for the construction of MCQ, SAQ, SEQ, and OSCE/ OSPE.
 9. The Exam Directorate will maintain, enhance, and periodically review the NUMS Question Bank.
 10. Examination Directorate NUMS shall ensure that the candidates' documents are correct and forward admit cards to the institutions at least two weeks before the commencement of the examination for issuance to individual students.
 11. Declaration of Result: Every effort shall be made to declare the result of the annual-based examination within one month of the last practical examination and within two weeks of the semester-based examination after the post-doc.
- b. Institutional Examination Cell:** Every institution will establish an Institutional Examination Cell (IEC) headed by an Institutional Deputy Controller (IDC) of Examinations, who will be responsible for the following:
1. Ensuring the development of MCQs and SAQs/SEQs/OSCE/OSPE by the concerned faculty and their maintenance in the institutional bank.
 2. Ensuring conduct of pre and post-exam quality assurance measures in collaboration with institutional DHPE/Assessment Cell
 3. Maintenance of record of internal assessment of continuous assessment in semester-based programs
 4. Maintenance of record of attendance of each candidate (minimum 75 % except in Nursing programs where it is 85 %)
 5. Submission of internal assessment of each student at least 2 weeks before end semester examination to Examination Date NUMS
 6. Submission of the examination application form and prescribed fee to the Examination Date NUMS at least 6 weeks before the commencement of the examination
 7. End Semester Examination: Maintenance of papers secrecy, conduct of annual/ end semester examination, and onward submission of papers to the Examination Date NUMS
- c. Departmental Board of Studies.** Departmental Board of Studies will be responsible for:
- 1) Development of Table of Specification (TOS) and assessment blueprint
 - 2) Ensuring quality of assessment of each program through pre per and post exam measures
 - 3) Monitoring the internal/ continuous assessment, and finalization of result ensuring transparent scoring of NUMS.
 - 4) Ensuring that course files/ dossiers of students are properly maintained.

- 5) Recommendation of examiners to the Examination Dte NUMS for final professional/ end semester examination as per NUMS and regulatory authority guidelines.

8. Policy Guidelines

- a. NUMS considers student assessment to refine its academic programs and improve student learning and performance.
- b. Multiple assessment methods are necessary to capture all or most aspects of clinical competency, but more than any single method is needed to do the job. Therefore, the following assessment tools may be selected by the faculty:
 - i. For knowledge, concepts, and application of knowledge ('Knows' and 'Knows How' of Miller's conceptual pyramid for clinical competence): context-based MCQ, short answer questions, and Essay Questions.
 - ii. For 'Shows How": multi-station OSCE/ OSPE, Long case (observed and structured) and Short case
 - iii. For performance-based assessment ('does'): portfolio or logbook
- c. All assessment blueprints shall clearly explain the educational rationale for adopting proposed assessment forms. However, the number of questions may vary from program to program.
- d. All assessment blueprints of PG programs shall be submitted to the Academic Directorate through the respective Dean for further approval from AS&RB and UG programs from the NUMS Coordination Committee. The template for the assessment blueprint is attached (**Annexure-G**)
- e. Assessment tools shall be appropriate and match the learning outcome being assessed.
- f. The difficulty level of all questions shall be mentioned as Recall and/or Application.
- g. All information regarding scheduling and the nature of examinations shall be known to the students in time
- h. Each student's performance in a course will be assessed periodically throughout the semester to check how well the student's learning outcomes are being achieved and how effectively the teaching standards are being maintained.
- i. **Semester-Based Programs:** Continuous/Internal assessment (60%) and End Semester Examination (40%) shall be cleared separately with a minimum of 50% marks. However, the cumulative result shall be calculated per the NUMS Grading Policy.
- j. As given below, these assessments will have different weights, contributing to the overall evaluation in percent marks.

Nature of Examination	Weightings	
Quizzes	5%	60 %
Sessional examination	10%	
Mid semester examination	25%	
Practical/Assignments/Presentation	20%	
Final semester examination	40%	40 %
Total	100%	

- a. Ratio of theory and practical will be adjusted as per their credit hours division e.g. in case of course 4(3+1), the weightage of practical shall be 25%
- b. **Quizzes/ Sessional Tests/ Mid-Semester Examinations**
- 1) Assessment tool for quizzes, sessional and mid semester exams shall be decided by the course instructor
 - 2) Quizzes, sessional exams and Mid-Semester examination of each course shall be evaluated by the respective course instructor. Results will be sent to the Controller of Examination through Institutional Examination Cell
 - 3) Whenever a student misses mid-semester examination/ sessional test due to reasons acceptable to the Departmental Board of Studies, make up test may be arranged within the 04 weeks
- c. **Practical/Assignments/Presentation**
- 1) Practical examination is the responsibility of the course instructor and DBS
 - 2) Assessment tool for practical exams shall be decided by the course instructor as per the course requirement. Proposed assessment tools for different programs are:

For PG Programs (Basic Sciences & Pathology)		
Assessment	40	20%
▪ Critical Appraisal of Article/ Assignment	10	05%
▪ OSPE/ Practical/Viva/Assignments/ PPTs	30	15%
For Clinical Sciences Programs		
Assessment	40	20%
▪ Portfolio/ Log book	10	05%
▪ OSCE (at least 07 stations)/ Short case/ Assignments/ Presentations etc	30	15%

- d. **Final Semester Examinations:**
1. The end-semester theory paper for each course shall be prepared and evaluated by the panel of examiners approved by the Controller of Examinations.
 2. The Departmental Board of Studies shall develop a paper as per the requirement of their subject based on the NUMS template out of two options as per the subject requirement.
 3. There will be no supplementary/ special examination for the semester exam, and if a student fails a course, they must repeat it.
 4. Whenever a student misses the End-of-Semester Examination for a reason acceptable to the Dean/ HoD, provided his/her attendance is not less than the program requirement, he/ she can appear in the examination whenever it is offered.
 5. The HoD and Institutional Deputy Controller of Examinations shall supervise and oversee the conduct of examinations in the departments.

CHAPTER VII

NUMS GRADING POLICY

1. Grade Point Average

- a. The student's final assessment shall be done by Grade Point Average (GPA).
- b. For calculation of GPA, absolute grading on the scale of 4.00 points shall be used
- c. Following grade calculations are used as per HEC policy for use by all concerned:

S No	Percentage	Grade Points	Grade	S No	Percentage	Grade Points	Grade	
1	85 & above	4.00	A	23	63	2.22	C	
2	84	3.93	A-	24	62	2.11		
3	83	3.86		25	61	2.00		
4	82	3.80		26	60	1.88	C-	
5	81	3.73		27	59	1.77		
6	80	3.66		28	58	1.70		
7	79	3.60	B+	Below 58			0.00	F
8	78	3.52						
9	77	3.46						
10	76	3.40						
11	75	3.33	B					
12	74	3.24						
13	73	3.16						
14	72	3.08	B-					
15	71	3.00						
16	70	2.88	C+					
17	69	2.77						
18	68	2.66						
19	67	2.58						
20	66	2.50						
21	65	2.42						
22	64	2.33						

- d. **Computation of GPA/ CGPA and degree award:** GPA is a figure ranging from 0.00 to 4.00 used to indicate the performance of a student in the semester. It is calculated as follows:

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

$$\text{Cumulative Grade Point Averages (CGPA)} = \frac{\text{Sum over all courses in all Semester (Courses Crd Hrs x Grade Point Earned)}}{\text{Total Semester Credit Hours}}$$

- e. Minimum qualifying CGPAs for PhD and MPhil/ Master programs shall be 3.00 and 2.50 respectively and for Undergraduate programs shall be 2.00

2. Academic Deficiencies.

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

- a. Semester GPA less than 2.00 for PG programs and 1.70 for UG programs
- b. CGPA less than 3.00 for PhD, 2.50 for MPhil/Masters programs and 2.00 for UG programs *in any semester other than first semester* or after completion of the coursework
- c. 'F' grade in any course
- d. 'I' (incomplete) grade in any course.
 - 1) **Award of Grade "F"**. "F" grade is awarded on the basis of:
 - a) Academic failure i.e. below 1.70 GPA in any course of PG programs and below 1.00 in any course of UG programs
 - b) Attendance less than 75% in any course (85% for Nursing programs)
 - 2) **Incomplete "I" Grade**. An incomplete "I" grade will be awarded by the faculty only in exceptional cases only when where beyond the control of a student such as serious accident, family tragedy, serious health ailment, etc. The grade will be approved by the concerned Dean provided the attendance of a student is not less than 75% (and 85% in case of nursing program). The student will be given a proper 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, s/he will be awarded an "F" grade

3. Recommendations for Academic Deficiencies

The cases of academically deficient students shall be discussed in the Departmental Board of Studies meeting and issue one of following recommendations where applicable, as mentioned below:

- a. Warning - issued to the student by the concerned HOD
- b. Probation.
- c. Withdrawal.

For probation and withdrawal, recommendations shall be sent to Controller of Examination NUMS who will notify it in the result.

- a. **Warning**. A PG student should be placed on warning under the following condition at the time of declaration of semester result by Controller of Examination of the University:
 - 1) Semester GPA less than 2.00
 - 2) CGPA 2.50-3.00 for PhD and between 2.00 - 2.50 for MPhil/Masters programs
 - 3) Failing in any paper(s)
 - 4) While on warning, a student is to:
 - a) Contact concerned faculty for guidance.
 - b) Improve semester work comprising home assignments, laboratory reports, quiz, mid semester and the marks obtained
- b. **Probation**. A PG student should be placed on academic probation under the following conditions:
 - 1) CGPA less than 2.00

- 2) Maximum two probations
- 3) While on probation, a student is to:
 - a) Contact concerned faculty for guidance.
 - b) Improve semester work comprising home assignments, laboratory reports, quiz, mid semester and the marks obtained
- c. **Withdrawal:** A student is recommended for withdrawal from the University on the recommendation of the Dean/ HOD by Registrar Directorate NUMS subject to any of the conditions listed below:
 - 1) Earns four F grades or more in the first semester only.
 - 2) Cannot complete their degree requirements within the maximum stipulated time, even if s/he utilizes the summer semester.
 - 3) A student who remains absent for more than 45 days continuously without valid reasons
 - 4) Withdraw from a Particular Course
 - 5) 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 four weeks after the start of classes.
 - 6) More than two academic probations.
 - 7) Students with a CGPA less than 1.70 in two consecutive semesters of the program, even after attending the summer semester. However, he will be eligible to seek readmission if applied for in the next available admission season. Readmission will be allowed only once on payment of the full admission fee.
 - 8) If a Ph.D. student fails twice in the comprehensive examination or fails to qualify for coursework requirements, including the comprehensive examination, within 03 years.
 - 9) Consistent unsatisfactory academic performance when reported by the supervisor of the PhD students
 - 10) A student can seek withdrawal from any program at any stage of his degree on his request duly recommended by his supervisor and for Ph.D. students by the Supervisory Committee of the Institute/ College and take readmission within two years from the stage on which withdrawal was taken.

Note: *If a student is likely to be withdrawn because of academic deficiencies, he or she will be duly warned and counseled.*

d. Repeating Courses

1. If a student gets an 'F' grade, he will be required to repeat the course or its recommended alternate, if any. However, the transcript will also record an "F" grade obtained earlier. For a student who fails in a subject and after repeating fails again, the number of F's counted in this case will be one "F" only.
 2. The students are responsible for clearing the failed / dropped courses, subject to the availability of resources at the respective institution and approval of the Dean / Associate Dean / HoD.
- 4. Improvement of CGPA.** A student may repeat a course, within the maximum permissible duration, to improve their CGPA subject to the following provisions:

- a. The course may be repeated/improved in the summer semester or when the course is offered.
- b. The student should register for the course(s) to be repeated after formal permission from the respective HoD.
- c. The student shall not be allowed to improve their CGPA after completing the degree.
- d. The terms and conditions of repeat courses shall be the same as those of regular classes.
- e. Students may repeat a course with a grade of "C" and below; however, if a Ph.D. student's CGPA is less than 3.00, they may repeat the course/s with a grade of "B—" and below to qualify for the comprehensive examination.
- f. A student may repeat up to three (03) courses in the PG program. In such a case, the course and the grade obtained will be recorded on the transcript; however, only the better grade will be calculated in the CGPA. In the case of CGPA improvement, it would be recorded with (Imp) on the transcript.
- g. A student can repeat the course twice to improve the grade.

5. Indiscipline in Examinations

- a. Any candidate found guilty of the following matters: their case will be submitted to the Unfair Means Cases Committee constituted by the University. This committee will comprise 02 senior faculty members and the director of student affairs, headed by a senior Professor of the University.
 1. Removes a leaf from their answer book; the answer book shall be canceled.
 2. Submits forged or fake documents in connection with the examination.
 3. Commits impersonation in the examination.
 4. Copies from any paper, book, or notes.
 5. Mutilates the Answer Book.
 6. Possesses any material which may be helpful to them in the examination.
 7. Does anything immoral or illegal in connection with the examination that may be helpful to them in the examination?
 8. Refuses to obey the invigilation staff or refuses to follow the instructions issued by the University in connection with the examination.
 9. misbehaves or creates any disturbance in or around the examination center.
 10. Uses abusive or obscene language on the answer script.
 11. Possesses any weapon in or around the examination center.
 12. Possesses any electronic device that may be helpful in the examination
 - a. His/her case shall result in penalties keeping in view the nature and intensity of offence.
 - 1) Cancellation of paper
 - 2) Suspension from programme for one semester.
 - 3) Heavy and light Fine
 - 4) Expulsion forever from the University.
 - 5) Any other.
- b. All serious cases of indiscipline shall be subjected to an inquiry by the Unfair Means Cases Committee, which will decide that the student will have to appear in the summer semester/with the regular semester for the canceled

paper provided that nothing will restrict the inherent powers of the Vice Chancellor to award any suitable punishment in any disciplinary case without reference to the said committee

- c. The principles of natural justice shall not be compromised under any circumstances when dealing with student disciplinary cases, even when such cases are decided on a summary basis.
- d. If a student is not satisfied with the decision of the Unfair Means Cases Committee, s/he can submit their appeal within a week after the conclusion of the Committee to the Vice Chancellor, whose decision will be final.

6. Rechecking of Examination Script

The answer book of a candidate shall not be re-assessed under any circumstances.

- a. Rechecking does not mean re-assessment/re-evaluation/re-marking of the answer book. The Controller of Examination can arrange for rechecking the examination script by any faculty member from the relevant discipline on the complaint/request of students. The Controller of Examination or any officer or rechecking committee appointed shall see that:
 - 1) There is no computational mistake in the grand total on the title page of the answer book
 - 2) The total of various parts of a question has been correctly made at the end of each question
 - 3) All totals have been correctly brought forward on the title page of the answer book
 - 4) No portion of any answer has been left un-marked
 - 5) Total marks in the answer book tally with the marks sheet
 - 6) The hand-writing of the candidate tally in the questions/answer book.
- b. The candidate or anybody on his behalf has no right to see or examine the answer books for any purpose
- c. The marks of a candidate could even decrease in light of (a) (3) above. In the event of reduction of marks, the record shall be corrected accordingly and revised transcript will be issued.

7. Medical Certificate

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

8. Permission of Writer for Special Students:

- a. A visually impaired student may be allowed to attempt examinations using Braille, a computer, or any other specialized facilitation means.
- b. In case a student is physically disabled/visually impaired, he may in advance apply to HoD with acceptable proof of disability or impairment at least two weeks before the start of the examination for permission to engage a writer in tests/examinations. Students shall be allowed 45 minutes (maximum) extra time for a question paper.
- c. The qualification of the person who acts as a writer for a handicapped student must be at least one step lower than that of the student.

9. Damaged/ Lost Answer Script:

In an exceptional case where an answering script is damaged, lost, or destroyed due to unavoidable circumstances, the student concerned may be given the following options:

- a. Average marking shall be awarded to the student in that subject/ course
- b. In case of the final examination, if the candidate desires so, s/he shall be given another chance as a special case to take the examination in that subject/ course in the next examination, and no examination fee shall be charged from the student
- c. In case of internal assessment, if the candidate desires so, s/he shall be given another chance as a special case to take the makeup assessment in that subject/ course in the same academic session

10. Matters Related to Degree/Transcript Award**a. Transcript.**

- 1) Examination Directorate may issue two types of transcripts i.e. interim and final.
- 2) Interim transcript shall be issued to such students who have not completed their programs. It will show the grades of all semesters which a student has completed along with GPA/ CGPA. It will show program status as well. In MBBS/BDS, it will show marks/ percentage of all subjects in every professional examination
- 3) Final transcript shall be issued to the students who have completed their degree requirements showing complete academic record of the students along with GPA/ CGPA in semester based programs and show marks/ percentage of all subjects in every professional examination. It will show program status as well with academic honor, if any.
- 4) The final transcript shall at least cover the following information:

b. Front:

- 1) Name of student, father's name, date of birth, registration number/ roll number.
- 2) Name of the program.
- 3) Date of admission into degree program.
- 4) Semester wise break-up with dates.
- 5) Subjects detail along with credit hours.
- 6) Type of enrollment - full time or part time.
- 7) Picture of the applicant be printed on transcript date of completion of degree requirements.
- 8) Date of completion of degree requirements.
- 9) Mode of study - regular or private or distance learning.
- 10) Online result verification key/ID (front side at the end of the transcript).
- 11) GPA/CGPA and overall percentage against earned CGPA (at the end of the front side of transcript) for semester based programs.

c. Back

- 1) Basic Admission Requirement of the Programme

- 2) Previous Degree held by the Student along with Institution Name
 - 3) Credit Hours Exempted/ Transferred if any/ applicable.
 - 4) CNIC No. for Pakistani and Passport No. for Foreign Students
 - 5) Grading System must be mentioned on Back Side of the Transcript
 - 6) Charter Date of the University/ DAI may be mentioned
 - 7) Name of Campus/ College be mentioned along with HEC Permission Date
 - 8) Signature of Issuing Officer(s) (Front and Back Side at the end of the Transcript)
 - 9) The degree/ diploma/ transcript must have the water-mark seal on it.
- d. **Duplicate Transcripts.** The students may request for additional or duplicate copies of transcripts on payment of prescribed fee. Each type of transcript shall depict transcripts definition and legend of grades on its reverse side.

11. Award of Degree

Degrees shall be issued against payment of a prescribed fee.

- a. An urgent degree can be issued upon the request of the student upon payment of a special fee, if any.
- b. The duplicate degree may be issued (with completion of all requirements) to a student in case the original degree is lost/damaged, or there is a change in the candidate's name. The duplicate degree shall be signed by the Controller of Examinations only.

12. Standing Committee - Use of Unfair Means in University Examinations

Composition

- 1) President : Director Academics
- 2) Members : Director Legal
- 3) Secretary : Dy Controller of Examination

Terms of Reference

To investigate and make recommendations about any disciplinary matter/complaint against students in the jurisdiction. The Secretary of the committee is to convene the meeting whenever required and submit the report to the competent authority for approval within seven days of the occurrence of the incidents.

CHAPTER VIII

GUIDELINES FOR SYNOPSIS & THESIS WRITING

Synopsis Writing

1. Introductory

This compilation aims to guide NUMS Ph.D., MPhil, and Masters students in writing research proposals of reasonable quality. The Postgraduate Studies Office is always pleased to provide guidance and support for postgraduate students in completing and timely submitting their synopsis and thesis. Students are expected to be fully aware of their responsibilities to meet all deadlines, formatting requirements, and paperwork needed to complete and submit their synopsis/ thesis.

2. Synopsis Contents/ Structure

A synopsis outlines the proposed research project for postgraduate studies at the university. It highlights a clear research question, approaches to solving the problem, and 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 to facilitate the supervisory committee's assessment of the originality of the idea, background information, methodology, outcome, and feasibility of the research project. It should be structured as explained from now on.

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 and specific and reflect the study's main objectives. It should not be too short or too long, not exceeding 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 the study, a 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 find 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 three well-written 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 a precise manner. The problem under study must apply 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 Pakistan's basic biomedical field/ healthcare system. It should further describe the critical analysis of the issue being studied in precise and clear terms based on the review of recent scientific literature. In this paragraph, the research question for which the proposed investigation aims to find an answer is explicitly formulated. The third, the final section, should highlight the proposed objectives and justification for the conduct of the study. An explanation of its significance should be used to demonstrate that research has not been conducted/ performed before and that the proposed project will add something new to the existing scientific literature.

8. Objectives of the Study

All research projects should have 'SMART' objectives (Specific, Measurable, 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 the temptation to put too many 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 the 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. In the null hypothesis, the researcher states that there is no difference from an expected outcome. In the alternate hypothesis, the researcher states that a true difference does exist between expected and obtained outcomes. However, it must be remembered that descriptive studies do not carry or involve any hypothesis.

10. Significance/ Impact/ Benefits of Study.

It emphasizes the significance/ importance of the research work/ study, the vital contribution of the study's results, and who will benefit from it. Convince the reviewers that the proposed research will significantly contribute to increasing knowledge in the particular subject/area /literature. In most cases, it should be possible to predict the specific and general benefits for people and policy-makers

upon completion of the proposed research.

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

Reviewing the literature in a synopsis helps the reviewer assess the researcher's knowledge. It familiarizes the reviewers with the problem under study and the work done by other researchers at local or international levels on similar subjects. A comprehensive and up-to-date literature review highlights the existing gaps. It assists in identifying various variables in the research project and conceptualizes their relationship. The researcher's research methodology can be structured and modified after reviewing the literature. It helps the researcher understand the difficulties others face and the corrective steps taken or modifications made by them. The reviewer can assess the work the researcher has put in, assisting in the feasibility and justification of the proposed research project to address national needs. Using 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).

Students should specify the research methodology chosen for the study and justify the specific approach selected to substantiate the proposed research project. This section should also include the following:

- a. **Setting:** State where research will be undertaken and data will be collected. This may be a hospital and/or its department(s)/ labs, the community, or both.
 - b. **Study Design:** Mention the name of the appropriate study design, which should preferably relate to the objectives (qualitative or quantitative research). A single study design or a combination can be selected, e.g., a cross-sectional study or survey, observational analytical designs, prospective studies, experimental designs, or clinical or field trials.
 - c. **Sample Size:** The sample size should be adequate to apply all relevant statistical significance tests and have appropriate power. The sample size depends on the study design. The sample size must be justified scientifically based on how it was calculated. The parameters used for sample size calculations must be mentioned and referenced.
 - d. **Sampling Technique:** The study population can be healthy people, patients, or recipients of certain treatments, animals, or medical devices. There are many methods for sampling, such as simple random, systemic, and stratified sampling, cluster sampling, etc. The sample should be representative of the population and reliable, which minimizes sampling errors. The type of sampling employed for each category of subjects under study should be mentioned.
- 1) **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.

- 2) **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, the institute's Ethical Committee's approval must be obtained and attached to the synopsis. Ethical approval is required in all human and animal studies. As approved by the Institutional Review Board, consent should invariably be used.

14. Analytical Methods/ Data Collection Procedure.

Complete details of the data collection procedure should be mentioned. The researcher must describe the data collection method, including 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 proprietary names, chemical composition, dose, and frequency of drug administration 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.

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 the 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 the proposed project should be reported as follows:

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 the 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 study duration.

19. References:

References are given in Harvard style, i.e., the body of the text, and take the form of the author's surname followed by the publication date, 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.***

- a. Covering letter (subject: consideration of synopsis)
- b. Ethical Approval letter from the concerned Institution Review Board (IRB)
- c. Informed consent form Consent form taken must also be attached
- d. 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.

SYNOPSIS

Title:

Dr.

PhD Trainee in -----

(Registration No. -----)



NUMS
NATIONAL UNIVERSITY
OF MEDICAL SCIENCES

Academic Supervisor

Department of -----

Institute -----

**National University of Medical Sciences (NUMS)
Rawalpindi**



NUMS
 NATIONAL UNIVERSITY
 OF MEDICAL SCIENCES

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., the body of the text, and take the form of the author's surname followed by the publication date, all within parentheses, e.g., (Johnston, 1917).

References book. The standard reference format for a book is the author(s) or editor(s) surname (s)/ and the initial(s) of their first name(s), year of publication, the title of the book (*italicized*), 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... OR (Costanzo, 2006).	Costanzo L. (2006). <i>Physiology</i> , Philadelphia: Saunders Elsevier.
Book: 2 authors	Pears & Shields (2008) OR (Pears & Shields, 2008).	Pears, R. and Shields, G. (2008). <i>Cite them right: The essential referencing guide</i> , 3rd ed. New York: Springer Publishing Co.
Book: 3 authors	Simon, Lipman and Jacox (2002) OR (Simon, Lipman and Jacox, 2002)	Simon, L.S., Lipman, A.G. and Jacox, A.K. (2002). <i>Pain in Osteoarthritis, Rheumatoid Arthritis and Juvenile Chronic Arthritis</i> , 2nd ed. Glenview, IL: American Pain Society.
Book: more than 3 authors	(Darlow et al., 2013).	Darlow, B., Dowell, A., Baxter, G.D., Mathieson, F., Perry, M. and Dean, S, (2013). 'The enduring impact of what clinicians say to people with low back pain', <i>Annals of Family Medicine</i> , 11 (6), pp.527-534.
Book: no author	Black's medical (1979).	Black's medical dictionary, (1979). 32nd 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.) Neurodegeneration: The Molecular Pathology of Dementia and Movement Disorders, Switzerland: Neuropath Press, pp.342-348.
eBook	Veletsianos (2010) stated that....	Veletsianos, G. (2010). Emerging technologies in medical education, London: Routledge. Retrieved from: eBrary database. [Accessed 29 September 2015].
eBook: chapter in an eBook	(Resnick, 2001). stated that. ...	Resnick, N.M. (2001). Geriatric medicine. In: Braunwald, E., A.S. and Isselbacher, K.J. (eds.) Harrison's Online. Based on: Braunwald, E., Hauser, S.L., Fauci, A.S., Kasper, D.L., Longon, D.L. and Jameson, J.L. (eds.) Harrison's Principles of Internal Medicine. New York: McGraw-Hill. Retrieved from: http://www.hslls.pitt.edu/resources/documentation/harrisonsinfo.html . [Accessed 6 December 2015]. 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), the article's title, and the journal's name (in italics, capitalize the first letter of each word). Mention the volume of the journal and issue (in parentheses). Write pages of articles at the end with a hyphen between the first and last page of the 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 Organization,(2010)	World Health Organization. (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.

A thesis aims to produce quality research work that should be creative and innovative. The guidelines given from now on for preparing an MPhil thesis and Ph.D. dissertation of reasonable quality are binding on all NUMS' enrolled postgraduate students. The 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**

1) PhD - Minimum 30000 words.

2) MPhil/ Masters - Minimum 15000 words

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

c. **Text:** should be in a single column and black in color

d. **Page Size:** Page size should be A4 to be used as guided below:

1) **Margins:** The left margin should measure 1.5 inches and the right, bottom and top margins should each measure 1 inch.

2) **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.

3) **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.

4) **Major headings and sub-headings:**

a) **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.

b) **Sub-headings**

(1) **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.

(2) **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 over colors for identifying graph lines. Colored graphs and pictures can be used as needed. 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 the top of the table. Single-space line spacing is used for tables, figures, and captions. Refer to figures/ tables within the main text, such as Tables 1.2 and 2.3. 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 size as your text. Page numbers must be placed on each thesis page, apart from the title and cover pages. Page numbers for the preliminary pages (e.g., dedications, abstract, acknowledgments, tables of contents, abbreviations, and preface) should be numbered consecutively in lowercase Roman numerals (i, ii, iii...). All pages, from the 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 must submit an electronic version (PDF) of their thesis or dissertation to the Postgraduate Studies in NUMS' Secretariat office. Electronic versions will be checked for structure/ format. Turnitin will also check them 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 Ph.D./ MPhil/ Master enrolled students must make two soft-bound copies (one for the University library and one for the exam branch). The copies must be submitted to the postgraduate studies office of NUMS as aforesaid, along with the submission form.
- c. **Binding of hard-bound thesis:** After a successful thesis defense, two permanent/hard-bound copies of the thesis will be submitted (one for the University library and one for the Exam Branch).
- d. **The front cover should bear:** Full title of the thesis, the candidate's name, and the Institute/ Department/ Centre/ College through which it is submitted, in the same order from top to bottom. The lettering may be in boldface and properly spaced. Their font sizes should be the title of 24 points, the name of the candidate 18 points, and the name of the department/ institute/ college/ university 18 points.
- e. **The spine of the thesis** should show 'M. Phil / Ph.D. thesis' on top across the spine's width, the candidate's name in the middle, and the year of submission across the width at the bottom.

- f. **The color of binding:** The hardbound cover shall be dark brown.
- g. **Published work:** Published work from the thesis (reprints, proofs, preprints) must be included as an appendix.

6. Outline for Thesis/ Dissertation.

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

Part-I: Consisting of:

- (a) Title page with the name of the student and the programme they are working under, i.e. name and MSPH with year.
- (b) Declaration duly signed by the Advisors/Supervisors
- (c) Acknowledgements
- (d) Table of Contents
- (e) List of Tables/Figures with page numbers
- (f) List of Abbreviations used

All pages are to be given Roman numerals before the summary.

(g) Summary/Abstract

The first part of the dissertation write-up should include a structured summary: Introduction, Objectives, Material, and Methods: Study design, duration, sample population including sampling techniques, sample size and sample selection, and statistical analysis. Brief results and conclusions. Keywords: 3-5 words best describing the study.

Part-II

1. Introduction

It shall cover:

- (a) Establish importance of topic
- (b) Conceptual model/relationship of independent and dependent variables
- (c) Summary of what is/is not known
- (d) What gap the study is filling
- (e) Statement of research purpose(s)

2. Literature Review

It shall cover:

- (a) General overview
- (b) Theoretical models/conceptual frameworks
- (c) Relationships among variables
- (d) Other relevant literature

3 Aims and Objectives (or research questions)

4 Material and Methods

- a. Study design
- b. Duration of study
- c. Conceptual models/conceptual frameworks
- d. Study population
 - 1) Sampling techniques
 - 2) Sample size/power
 - 3) Sample recruitment: Inclusion and Exclusion criteria

5 Data Collection Procedure*

Identify the recruitment of the population to the collection of:

- 1) Variables: how measured
- 2) Measurements: how performed?
- 3) instruments*: questionnaires etc.
- 4) reliability
- 5) validity

*include copies of relevant instruments (surveys, etc.) as appendices.

6 Data analysis plan

How was the data analyzed? Procedures for statistical application and statistical software/s used should be clearly outlined.

7 Ethical Considerations

The consent form must be attached as an Annexure. The IRB's ethical clearance should also be attached. Informed Consent Procedures: Consent Form.

8 Results

This chapter includes the presentation of results as tables, figures, etc., based on the statistical applications and not as computer outputs. The results should be described in adequate detail, indicating the major findings. They should be in line with the objectives of the study. The results should be on separate pages, with one table/figure on one page. The same tables cannot be replicated as figures.

9 Discussion

In this chapter, a detailed discussion of the results and comparisons with other studies concluding in accordance will be made.

10 Conclusions

The conclusions should be in line with the objectives and the results.

11 References

The reference list consists of published articles under 5 years unless required. References from books are not the preferred method. The pages should be numbered from (Introduction to References) in Arabic numerals.

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 (NUMS)
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 the Master of Philosophy in Chemical Pathology degree.

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/dissertations under NUMS.)

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

ABSTRACT

An abstract is a 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 contain an introduction, objectives, and methods, including study design, sampling, data collection, major results, and conclusions. The final sentences explain the major implications of the work. The abstract should be single-spaced. The abstract page needs to be 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 giving me the acumen and vision to complete this endeavor.

I would like to express my heartfelt gratitude to my supervisor (name) for his invaluable guidance and unwavering support throughout this study. His wisdom and encouragement have been instrumental in my academic growth, and I am truly indebted to him for creating a conducive environment for my research.

Ultimately, I want to express my deepest gratitude to my family. Without their encouragement, I would not have been able to complete this endeavor. (You can always choose your wording; this is only a format/ sample to be followed for uniformity of all thesis/dissertations under NUMS).

Dr. _____

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LIST OF ABBREVIATIONS (On new page)

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

CHAPTER IX

STUDENTS AFFAIRS

1. Attendance.

Every postgraduate student shall be required to attend class lectures, seminars, and practical and clinical classes of each course with attendance of at least 75% (85% for nursing) or as per the regulatory authority of the concerned program.

2. Leave.

For over three days, a student may directly or through their parents or guardian send a written application to the Head of the Institution reporting the cause of absence. Sick leave will be granted only on the 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 absent without continuous weeks will be struck off the university roll.

3. Correspondence.

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 college hours.

4. Etiquettes and Conduct Norms.

- a. Students are expected to extend the highest courtesy and respect towards their teachers. The teacher shall immediately report any student misbehaving in the classroom to the Head of the College/ Institution for disciplinary action.
- b. Students can only leave the lecture room with the teacher's permission or until the class is dismissed. Every student must be punctual according to the schedule notified for clinical teaching and ward duty.
- c. Students attending hospitals must abide by the hospital rules; for all disciplinary purposes, they are under the head of the concerned medical/dental institution while in the hospital.

5. Social Media Use.

Students are expected to use social media responsibly and be aware of its irresponsible use's unexpected and long-term consequences. No derogatory or negative discussions about the country, NUMS, or army should be discussed on social media. On campus, the 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 academic terms. The Course Coordinator

will help you to assist in academic, personal, financial, and extracurricular domains.

7. Student Engagement.

Students must 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 per the Disciplinary policy issued by the Registrar Directorate.

10. Academic Integrity and Plagiarism.

NUMS Plagiarism Policy

a. Introduction:

1. Originality, genuineness, and integrity are the fundamental principles of research work. NUMS rightly condemns plagiarism and always endeavors to discourage and combat plagiarism in academic and research domains. Keeping in view the guidelines, instructions, and policies of the Higher Education Commission, NUMS has been making efforts to enlighten its faculty and students and to avoid infringements of intellectual originality in their academic and research efforts. NUMS unconditionally rejects intellectual dishonesty in all its forms and manifestations.
2. Based upon its strong determination to foreclose all possibilities of the commission of any plagiarism-related offense, NUMS has developed this plagiarism policy (which is primarily embedded in an anti-plagiarism outlook) for strict compliance with immediate effect. The principal purpose is to ensure that ethical and academic standards of intellectual integrity are met at NUMS (HEC plagiarism policy is available on their official website).

b. Aim:

This policy aims to apprise the students, teachers, researchers, and staff of NUMS about plagiarism, enabling them to avoid it under all circumstances. It also aims to prevent plagiarism by authorizing and regulating preventive and punitive actions against those found guilty of being deliberately involved in plagiarism.

c. Applicability:

1. All enrolled students and those who have graduated, faculty members, researchers, and staff of the university, including its constituent and affiliated colleges and institutes, as well as its teaching hospitals.

2. Any person listing his/her CV on the NUMS website containing any current publication or applying for any benefit based on published or presented plagiarized work will be liable to be penalized as per prescribed rules.

d. Definition of Plagiarism:

Plagiarism may take place in many forms, including but not limited to the following:

1. Wholly or partly reproducing someone else's past work with or under one's name.
2. Paraphrasing a source and material exactly from books under one's name.
3. Making a mash-up, mixture, or fusion of sources of already published work and publishing under one's name.
4. Word-for-word or word-by-word copying portions of another author's research work or from reports by citing but not differentiating what text has been copied (e.g., not applying quotation marks correctly) and /or not citing the source correctly.
5. The re-use of significant, identical, or nearly identical portions of one's work without acknowledging that one is doing so or citing the original work.

e. HEC's Definition:

HEC has quoted the definition of plagiarism from the Concise Oxford Dictionary: "taking and using the thoughts, writings, and inventions of another person as one's own." HEC has, however, emphasized that plagiarism manifests in various forms. These usually include but are not limited to the following:

1. Verbatim copying, near-verbatim copying, or purposely paraphrasing portions of another author's paper or unpublished report without citing the exact reference.
2. Copying elements of another author's paper, such as equations or illustrations that are not common knowledge, or copying or purposely paraphrasing sentences without citing the source.
3. Verbatim copying portions of another author's paper or from reports by citing but not differentiating what text has been copied (e.g., not applying quotation marks correctly) and /or not citing the source correctly.
4. The unacknowledged use of computer programs, mathematical/computer models/algorithms, computer software in all forms, macros, spreadsheets, web pages, databases, mathematical derivations and calculations, designs /models / displays of any sort, diagrams, graphs, tables, drawings, works of art of any kind, fine art pieces or artifacts, digital images, computer-aided design drawings, GIS files, photographs, maps, music / composition of any sort, posters, presentations and tracing.
5. Self-plagiarism is the verbatim or near-verbatim re-use of significant portions of one's own copyrighted work without citing the original source.

f. Responsibility of the Colleges/Institutes of NUMS:

1. All colleges and institutes of NUMS to whom this policy applies are responsible for ensuring that their students, teachers, researchers, and staff members are aware of the definition of plagiarism, its implications, and the penalties for committing

- plagiarism-related contraventions/violations.
2. These colleges and institutes should invariably educate their staff and students regarding research ethics. NUMS will host workshops on research ethics and plagiarism to raise awareness among all its colleges and institutes on a regular basis. Still, the ultimate responsibility of ensuring that all papers/articles/reports/manuscripts/theses/synopses/patents/abstracts/books submitted for publication attain the highest ethical standards lies with the authors, including the coauthors and supervisors.
 3. The students' supervisors in these colleges and institutes shall be responsible and accountable for the originality and integrity of their synopses/theses/research papers. Therefore, they must ensure that any work submitted by their students is clear of plagiarism before submission to NUMS-ORIC.
 4. In case any complaint is launched in any college or institute or if any thesis/report/paper submitted to NUMS-ORIC has a similarity index > 19 or a similarity index of $\geq 5\%$ from a single source without citation, then an allegation report (Refer to "Guidelines on 'Ethics of Using Turnitin for Instructors'") will be generated by NUMS ORIC and processed in PSC as per the rules and procedures mentioned in this policy.
 5. As a general rule, anonymous complaints are not to be entertained. However, if overwhelming evidence of plagiarism is found, even anonymous complaints will be considered and dealt with per the plagiarism policy with the approval of the Competent Authority. (Refer "to Time-bound SoPs" for Plagiarism cases.)
 6. The case about the period before the announcement of the HEC Plagiarism Policy on September 27, 2007, will be investigated/evaluated for plagiarism 'only' if the accused has drawn some benefit based on the plagiarized work because academic dishonesty has never been acceptable at any point in time. However, if the accused claims that they have not drawn any benefit from the plagiarized work, the following actions are to be taken:
 - a. The authors will withdraw the research paper from the journal and remove its mention from their resume.
 - b. The corresponding authors(s) will send a letter of apology to the publisher.
 - c. The authors will submit affidavits on stamp papers stating that they have not claimed credit for the plagiarized work and will not claim credit in the future. (Reference: HEC letter DD-QA/HEC/2015/153, dated September 5, 2017.

g. Launching of complaint:

A complaint of plagiarism should be launched in writing to the NUMS ORIC with the following details:

- 1) A complete citation of the original idea/paper/patent etc., which is alleged to have been plagiarized.
- 2) Citation of the alleged plagiarized paper.
- 3) Copies of both papers/documents mentioned above.

- 4) Any other related information which can establish a case for plagiarism.
- 5) Name, designation, organization, address, email and contact number of complainant along with attested copy of the CNIC.
- 6) Name, designation, organization, address, email and contact number of the accused.

h. Investigation:

- 1) Upon receipt of a complaint containing an allegation of plagiarism, the NUMS ORIC will immediately carry out a discrete investigation through the Plagiarism Standing Committee (PSC) according to the guidelines of HEC.
- 2) The PSC will determine the authenticity of the allegation, consult experts, provide the accused author(s) a chance to clarify or justify their position and, if required, to the complainant as well as the author(s) whose paper is deemed to have been plagiarized. During the investigation process, the members will not disclose any details of the investigation until the Committee reaches its final conclusion.
- 3) On completion of investigation, not later than sixty days of the receipt of complaint, the PSC will present its comprehensive report to the Vice Chancellor.
- 4) The final decision which may contain appropriate preventive or punitive actions will be made by the Vice Chancellor after affording opportunity of hearing to the concerned person or persons as and if deemed necessary.
- 5) The final outcome of the case shall be intimated to HEC as per procedure in vogue.
- 6) All investigation proceedings, their outcome and consequential actions shall be treated “confidential” and kept away from the access of persons not authorized or concerned with implementation of plagiarism policy.

i. Composition of NUMS Plagiarism Standing Committee:

The Vice Chancellor has constituted the NUMS Plagiarism Standing Committee under the chair of Pro Vice Chancellor Academics along with internal/external member and 1 x nominee of HEC.

j. Penalties for Plagiarism:

- 1) For faculty members, staff and researchers, plagiarism is a very serious offense and is punishable by sanctions ranging from letter of warning to termination/dismissal from service.
- 2) Students are also expected and required to do their own original work on each assignment and research work. A student who recycles his/her course/research work from one class/project to another may face an allegation of academic/research dishonesty. An instructor who believes that a student has committed an act of plagiarism should take immediate appropriate action, including the issuing of a “penalty grade” for academic dishonesty.
- 3) When plagiarism allegation has been proven in any investigated case, the PSC is required to recommend to the Vice-Chancellor to take necessary penal action depending on the nature and gravity of the offense against the faculty/staff/student.

- 4) Keeping the above in view, the penalties for plagiarism have been divided into two separate categories, i.e. those for 'Faculty Members, Researchers and Staff' and those for the 'Students' as per table given below.

k. Table of Penalties

1) For Teachers, Researchers and Staff:

S#	Penalty	Nature/Extent of Offence	Penal Action
1	Major Penalty	Plagiarism has been proven to be > 60%) of the content (or key results) have been exactly copied from any published work of other people without giving/quoting reference of the original work.	<p>a) dismissal/termination from service OR</p> <p>b) Ineligibility for employment in academic/ research organization at NUMS for any cadre.</p> <p>c) Blacklisting on HEC & NUMS websites (if approved by VC)</p>
2	Moderate Penalty	Plagiarism has been proven to be 35-60% of the content including some key results have been copied without citation.	<p>a) Demotion to next lower grade OR</p> <p>b) Stoppage of promotion or annual increment(s) in time scale or otherwise</p> <p>c) Freezing of research/ travel grant(s) in time scale or otherwise</p> <p>d) Permanent or time-specific disqualification for supervision of PhD/MS/MPhil/Equivalent students</p>
3	Minor Penalty	Plagiarism has been proven to be 20-35% of the content without giving reference of the original work.	<p>Anyone or a combination of following:</p> <p>a) Warning letter</p> <p>b) Freezing of research/travel grant (s) in time scale or otherwise</p> <p>c) Stoppage of promotion/ annual increment(s) in time scale or otherwise</p> <p>d) Permanent or time-specific disqualification for supervision of PhD/ MS/ MPhil/ Equivalent students</p>

2) For Students:

S#	Category	Characteristic	Action
----	----------	----------------	--------

1	esis	mplete or partial plagiarism in any case	For Moderate and Minor plagiarism: Anyone or a combination of following: a) The offender may be expelled /rusticated or relegated to lower class and notified to all concerned b) Failure in the relevant discipline/subject c) Imposition of fine as deemed appropriate d) Written warning (in case of minor offense) e) Specific or general debarring from scholarship, travel grants, fellowship or any other funded project as deemed appropriate. For Major Plagiarism: a) Withdrawal of degree/certificate in case of major plagiarism in the thesis b) In case plagiarism in thesis is found, the role of the supervisor in the commission of the offence will be investigated for fair determination of his/ her responsibility.
2	blication		
	y content/published (online or in print) under NUMS		

l. Additional Actions:

In addition to the above penalties, the following additional common actions may also be taken in situations where the offense of plagiarism stands proved and established:

- 1) If the plagiarized paper is accessible on the web, its access should be removed. The paper itself will be kept in the database for future legal purposes.
- 2) The author(s) will be asked to write a formal letter of apology to the authors of the original paper/ work that was plagiarized, including an admission of plagiarism. In case of refusal, harsher penalty may be inflicted by the Vice Chancellor as deemed appropriate.
- 3) If the paper is submitted but not published, the chief editor/editor of the journal shall be informed for the paper to be retracted at once.

m. Responsibilities of the Principal Author:

- 1) The principal author shall, in addition to his/ her other responsibilities along with the co-authors, follow and observe all ethical responsibilities of research and authorship.
 - 2) He/she will be responsible for the originality and genuineness of the contents of his/her articles, writings, compositions and other similar products. He/she shall not make any false claims for anything which is not a result of his/her own work or efforts.
 - 3) While submitting his/ her manuscript to ORIC, he/ she shall furnish a personal certificate with his/her own and co-authors' signatures, about the originality and genuineness of the contents and every such certificate shall be countersigned by the Head of the Department (HoD) and in his/her absence by the Dean concerned.
 - 4) The principal author should give authorship to others only if they have made significant contribution. He shall be responsible for ensuring that all co-authors have played their role in the manuscript preparation and have consensus on the order of authorship.
- n. Responsibility of Co-Authors:**
- 1) All co-authors will be deemed and treated to be equally responsible for any plagiarism committed in a published paper in any journal or presented at a conference.
 - 2) The co-authors will be liable to the same penal actions as are applicable to the principal author.
- o. General Responsibilities of Authors:**
- 1) References to all sort of data and reported researches must be given. It is authors' duty to submit original work and give due credit to others' work. Material quoted verbatim must be given in quotation marks.
 - 2) The author can publish the work which was previously published only in abstract form. He/she can republish previously published research work if it is significantly different from the previous research due to value addition on account of more data.
 - 3) Authors must acknowledge all persons, institutions or organizations who have helped in the research work or research process.
- p. Responsibility on the Supervisor of a Plagiarized PhD/MS/MPhil/Equivalent Program Thesis:**
- If the plagiarism is established in the thesis of a PhD/MS/MPhil scholar, then the supervisor shall also be held responsible for this act and black listed for 05 years and the information will be uploaded on the NUMS and HEC websites. Besides, a disciplinary action shall also be initiated against such supervisor. (Refer HEC letter No. 1-22 (NQAC)/QAD/2017/HEC/07-364 dated March 24, 2017)
- q. Black Listing of Complaints of False Allegation by NUMS/HEC:**
- The complainant of false allegation of plagiarism shall be blacklisted for the 05 years and the information will be uploaded on the NUMS and HEC websites.
- (Refer HEC letter No. 1-22 (NQAC)/QAD/2017/HEC/08-365 dated March 24, 2017.)

r. Appeal against penalties:

The affected person(s) will have the right to appeal to the Vice Chancellor / Chairman HEC for a review of the findings or may submit a mercy petition within 30 days from the date of issuance of the impugned decision. All such appeals and petitions will be processed and finalized according to HEC guidelines.

s. Anti-Plagiarism Measures:

- 1) IT Readiness: use of Turnitin shall be considered and made mandatory before submitting material for publication.
- 2) Awareness of research and academic ethics shall be promoted on regular basis as an essential institutional management feature.
- 3) Dissemination of plagiarism policy among students and faculty shall be conducted as a regular feature of the overall academic and research policy.

t. Over-rider:

- 1) In case of any discrepancy between this policy and the policies/guidelines/instructions of HEC on any aspect of plagiarism, the latter shall prevail.
- 2) This policy will be reviewed every three years and revised & updated if required.

11. NUMS Grievances Policy

- a. The Grievance Policy applies principally to employees, including faculty, staff, and NUMS students. However, any member of the NUMS community, including but not limited to students, employees, and alumni, has a right to express a grievance. This policy also applies to those interacting with the NUMS or its affiliated programs.
- b. This policy applies to all university-related activities both on and off campus and to all individuals involved in these activities. It also applies to the conduct by or directed toward third parties who are not themselves employees or students of NUMS.
- c. It covers individual grievances of a specific nature raised individually by the concerned stakeholder only, not grievances of general applicability or of a collective nature or raised collectively by more than one stakeholder.
- 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 already being considered under another policy or procedure.
- e. Academic matters shall be dealt with as per HEC/ PMC policy.
- f. Referred to NUMS Student Grievances Policy available at Registrar Directorate.

12. Scholarship policy.

As per HEC scholarship policies

13. Teaching Assistantships and Research Assistantships:

- a. The university departments may offer Teaching and Research Assistantships to outstanding PhD enrolled students at various stages of their enrollment.

- b. Teaching assistantship provides an opportunity to PhD students to assist professors in preparing teaching and research materials for groups of students enrolled in their classes.
- c. Research assistantships are paid fellowship stipends for outstanding research scholars for assisting a professor, who pays the research assistant out of the research grant s/he has received. The stipend varies based on the level of effort and budget available to the Principal Investigator
- d. The University may have named scholarships to promote quality research by philanthropic donors based on priority themes and topics on the national research agenda.

14. Regulations Relating to Expulsion.

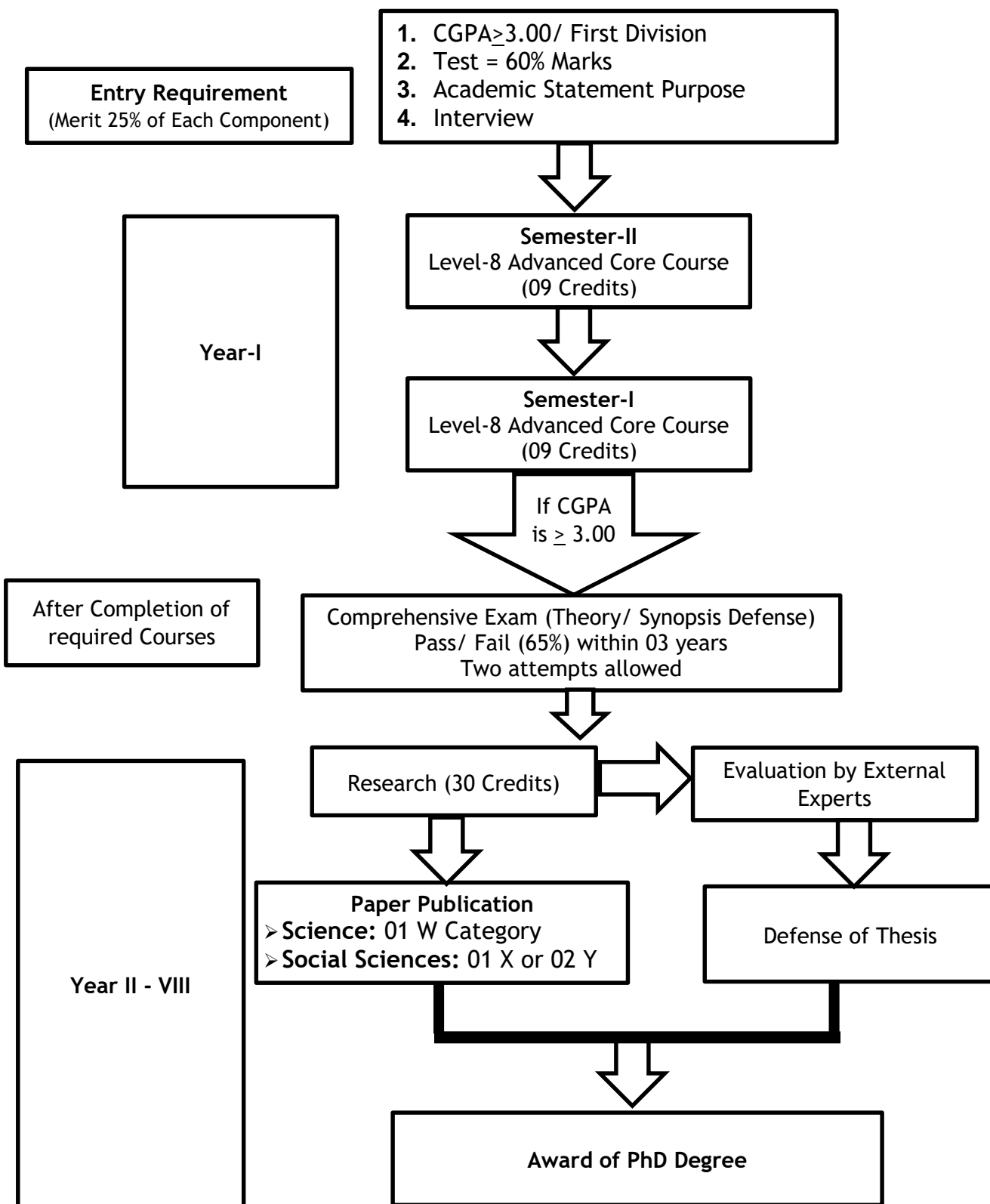
- a. The punishment of expulsion whenever imposed on a student mean a loss of a specific duration of studies as determined by the authority concerned and will **mean his being debarred from the university examination during the period of his/ her expulsion.**
- b. A student expelled from the university 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.

15. **Over-riding effect.** Where on any matter, issue or question, there is any conflict or divergence between any of the provisions of this policy instrument and any of the provisions of NUMS' statutes, regulations or rules, the provisions of the statutes, regulations or as the case may be, rules shall prevail.

Repeal - On commencement of NUMS Policy for Post Graduate Academic Programs 2024 (Revised), Academic policy for PG Studies 2018 is hereby repealed.

CONDUCT OF PhD PROGRAM

ANNEX-A



**ANNEX-B****STUDENTS' FEEDBACK PROFORMA**

Academic year **2021** Semester **First** Date of feedback _____

Please mark appropriate column by ✓

(Rating: **1** - Excellent, **2** -Very good, **3** - Good, **4** - Fair, **5** - Below average)

Name of Course:		Course Code:				
Core Questions: Course		1	2	3	4	5
1.	Course outcomes/contents were clearly mentioned & provided at the start of course					
2.	Course contents were aligned with learning outcome					
3.	Teaching and learning methods encouraged your participation					
4.	Time allocated to the course was sufficient and manageable					
5.	Learning environment was comfortable and conducive to learning					
6.	Learning resources were relevant & helpful					
7.	The provision of learning resources in the library was adequate and appropriate					
8.	The course stimulated my interest and thought on the subject area					
9.	Assignments were helpful for learning of core concepts					
10.	Practical / skill development sessions were helpful for learning of core concepts					
11.	Assessment was in line with the provided Table of Specifications					
12.	Methods of assessment were appropriate					
13.	Satisfied with over all conduct of the course					
Core Questions: Faculty		1	2	3	4	5
1.	The Instructor is prepared for each class					
2.	The Instructor demonstrates knowledge of the subject					
3.	The Instructor has completed the whole course					
4.	The Instructor provides additional material apart from the textbook					
5.	The Instructor communicates the subject matter effectively					
6.	The Instructor shows respect towards students and encourages class participation					
7.	The Instructor maintains an environment that is conducive to learning					
8.	The Instructor is punctual					
9.	The Instructor is fair in examination					
10.	The Instructor was responsive to student's need and problems					
11.	The Instructor dealt effectively with my problems					
Comments/ Suggestions:						
Name & Signature of the student (Optional): _____						

Annex-C**Postgraduate (PG) Forms****POSTGRADUATE (PG) FORMS (Downloadable from NUMS website)**

S. No	Form No	Title
i.	PG-01	Post-graduation Registration Form
ii.	PG-02	Application Form for Migration/Transfer of Credit
iii.	PG-03	Request for Freezing of Semester
iv.	PG-04	Appointment of Supervisor/Co- Supervisor
v.	PG-05 (a)	Graduate Supervisory Committee (GSC) (PhD Program-GSC)
vi.	PG-05 (b)	Graduate Supervisory Committee (GSC) (Master Program - GSC (Medical Programs))
vii.	PG-05 (c)	Graduate Supervisory Committee (GSC) (Master Program - GSC (Non-medical Programs))
viii.	PG-06	Petition for Change in Graduate Supervisory Committee
ix.	PG-07	Improvement/Repeat Course Form
x.	PG-08	Bi-annual Progress Report
xi.	PG-09	Synopsis Submission Form
xii.	PG-10	Synopsis Evaluation Report
xiii.	PG-11	Synopsis Approval/ Qualifying Examination (B) Report
xiv.	PG-12	Change of Synopsis Title/ Project
xv.	PG-13	Thesis/Dissertation Submission/ Verification
xvi.	PG-14	Thesis/Dissertation Evaluation Report
xvii.	PG-15	Publication/ Article Submission
xviii.	PG-16	Thesis/ Dissertation Oral Defense Report
xix.	PG-17	Final Thesis/Dissertation Approval Report
xx.	PG-18	Check List for Award of Degree

ANNEX-PG-01

POSTGRADUATION REGISTRATION FORM

1. Name _____ 2. Father's Name _____
 3. Date of Birth _____ 4. Gender _____
 5. Nationality _____ 6. District of Domicile _____
 7. CNIC Number _____ 8. PM&DC Registration No _____
 9. Mailing Address _____
 10. Telephone/Mobile Number _____ 11. Email address _____

12. Academic Data/ Qualification

	School/ College/ University	From	To	Division GPA/ Grade	Marks obtained (%)	Major subjects taken
<ul style="list-style-type: none"> • Matric • O'Level/ Other 						
<ul style="list-style-type: none"> • F.A./ F.Sc. • A'Level/ Other 						
<ul style="list-style-type: none"> • MBBS/ BDS • BS/ Other 						
<ul style="list-style-type: none"> • 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 I made 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 authorized 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 the application form for the Transfer of Students. I hereby apply for admission to the MPhil/Ph.D. 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 provide 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 faculty critically examined the case for migration from the above-mentioned institution to our College/ School/ Institute. It is recommended that the Migration/ transfer of credits of the 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/Assistant Professor _____ (HoD) _____

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: _____

You are requested to supervise the coursework, synopsis, and thesis defense during the research work period and send us a progress report on the prescribed form. You will also be required to be present during thesis defense. Kindly send us your acceptance in writing so we can formally intimate your name to the NUMS Academics Directorate.

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

Date: _____

(Head of Department)

I am willing to supervise above mentioned student

Date: _____

(Supervisor)

Countersigned

Date: _____

Dean/ Head of Institute

Distribution:

1 x copy to be maintained in the concerned Institute, Acad Dte & Controller of Examinations

ANNEX-PG-05 (a)

**GRADUATE SUPERVISORY COMMITTEE
(PhD Program–GSC)**

Name: _____ Registration No: _____

Department: _____ Institution _____

Subject: _____ Date of Admission: _____

Contact No: _____ Email: _____

Date: _____ Student's Signature: _____

Graduate 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: _____

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-05 (b)

**GRADUATE SUPERVISORY COMMITTEE
Master Program - GSC (Medical Programs)**

Name: _____ Registration No: _____

Department: _____ Institution _____

Subject: _____ Date of Admission: _____

Contact No: _____ Email: _____

Date: _____ Student's Signature: _____

Graduate 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: _____

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-05 (c)

**GRADUATE SUPERVISORY COMMITTEE
Master Program - GSC (Non-Medical Programs)**

Name: _____ Registration No: _____

Department: _____ Institution _____

Subject: _____ Date of Admission: _____

Contact No: _____ Email: _____

Date: _____ Student's Signature: _____

Graduate Supervisory Committee Members

1. Supervisor: _____ Signature: _____

Qualification/ Dept./ Institute: _____

2. Internal member: _____ Signature: _____

Qualification/ Dept./ Institute: _____

3. External member: _____ Signature: _____

Qualification/ Dept./ Institute: _____

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

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-06

**PETITION FOR CHANGE IN THE GRADUATE 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-07

**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-08

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)		

Supervisors' 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-09

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-10

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)					_____ / 20
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)					_____ / 20
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>

Distribution:

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

ANNEX-PG-11

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

Name: _____ Registration No: _____

Department: _____ Institute: _____

Subject: _____ Date of Synopsis Meeting: _____

Title: _____

Graduate Supervisory Committee Members

First Attempt: _____

Second Attempt: _____

1 _____
Supervisor_____
Signature2 _____
Internal Examiner_____
Signature3 _____
External Examiner (1)_____
Signature4 _____
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.

ANNEX-PG-12

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

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)

Graduate Supervisory Committee Members

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-13

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?		
Two (2) 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?		
Word count		

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-14

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

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:

1. The thesis is ready to proceed to the Oral Defense
2. Minor revisions before to proceed to the Oral Defense
3. 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-15

**PUBLICATION/ ARTICLE DETAILS
(PhD & Master Programs)**

Name: _____ Registration No: _____

Department: _____ Subject: _____ Institute: _____

Name of Author(s)	
Title of paper	
Subject discipline	
Name of HEC recognized journal	
Category of the Journal at the time of Publication	
ISSN of journal (print)	
ISSN of journal (online)	
URL of paper/article	
Volume, number, and year	
Page(s) no. in journal	
Date of Publication Online (DD-MM-YY)	
Date of Publication Print (DD-MM-YY)	

Supervisor Name: _____ Signature _____

Date: _____

Distribution:

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

ANNEX-PG-16

THESIS/ DISSERTATION ORAL DEFENSE 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)

Evaluation Criteria	Marks*				Comments
	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)					_____ / 20
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)					_____ / 15
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)					_____ / 10
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-17

**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.

Graduate Supervisory Committee Members

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-18

CHECK LIST FOR AWARD OF DEGREE

Name: _____

Registration No: _____

S. No	Name of the Document	Evidence Attached		
		YES	NO	NA
PG-01	Post-graduation Registration Form			
PG-02	Application Form for Migration/Transfer of Credit			
PG-03	Request for Freezing of Semester			
PG-04	Appointment of Supervisor/Co- Supervisor			
PG-05	Graduate Supervisory Committee (GSC)			
PG-06	Petition for Change in Graduate Supervisory Committee			
PG-07	Improvement/Repeat Course Form			
PG-08	Bi-annual Progress Report			
PG-09	Synopsis Submission Form			
PG-10	Synopsis Evaluation Report			
PG-11	Synopsis Approval/ Qualifying Examination (B) Report			
PG-12	Change of Synopsis Title/ Project			
PG-13	Thesis/Dissertation Submission/ Verification			
PG-14	Thesis/Dissertation Evaluation Report			
PG-15	Publication/ Article Details			
PG-16	Thesis/ Dissertation Oral Defense Report			
PG-17	Final Thesis/Dissertation Approval Report			
PG-18	Check List for Award of Degree			

Date: _____ Reviewed by: _____ Signature _____