

UNIVERSITY OF THE PUNJAB



**General Information, General Standards,
Regulations on the Requirements for the Studies,
Outlines of Curriculum Content and Examinations,
Leading to Postgraduate Degrees of
MD/MS/MDS/M.Phil
of the University of the Punjab**

2001

**Approved by the Vice Chancellor, and
Notified by the Registrar, University of the Punjab.
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General Information, General Standards, Regulations on the Requirements for the Studies, Curriculum Content, and Examinations Leading to Postgraduate Degrees of MD/MS/MDS/M.Phil of the University of the Punjab

INTRODUCTION

University of the Punjab was established in 1882. The University awarded its first medical postgraduate degree of Doctor of Medicine in 1914 and Master of Surgery in 1915. The University of Punjab is oldest and the most prestigious seat of learning, not only in Pakistan but also in whole of the region.

The University runs courses of Undergraduate Education, Postgraduate Diploma Courses, Postgraduate Degree Courses and Ph.D. Courses in Faculty of Medicine and Dentistry.

In this document *Statutes*, and *Regulations* regarding General Information, General Standards, and Requirements for Studies, Outlines of Curriculum and Examinations and of the courses that lead to the Postgraduate Degrees of MD MS MDS/M.Phil of the University of Punjab are presented.

In this document, the words “must” and “should” have been chosen with care. The word “must” indicate absolute necessity and the use of word “should” indicate an attribute to be highly desirable. While recognizing the existence of different circumstances in the various Institutions affiliated with the University of the Punjab, and the need to provide room for innovation to meet changing environment; the University subscribes to the propositions that local circumstances cannot justify recognition/approval of a substandard course.

In addition to these *Statutes* and *Regulations* which apply to all MD MS MDS/M.Phil Courses, specific educational objectives in the form of **curriculum** contents and curriculum organizer (Syllabus and Scheme of Study) of courses in each specialty will be available as a separate documents.

It gives me great pleasure to appreciate the hard work done by the Dean and Members of the “Faculty of Medicine and Dentistry” of the University of Punjab, and assistance that was extended by the members of the “Punjab University Medical Postgraduate Alumni Association” in revising the Curriculum of MD/MS/MDS/M.Phil courses. The contributions made by the Faculty of Science and Institute of Education and Research of the University of Punjab in revising these courses are also appreciate.

I wish success to the Faculty of the University of Punjab in running these new curriculum and welcome new candidates on these modern courses.



Lt. Gen. (Rtd) Arshad Mehmood
Vice Chancellor,
University of Punjab

Statutes

for

M.D./M.S./M.D.S./M.Phil Courses

DURATION OF COURSES.

The minimum duration of MD/MS/MDS/M.Phil courses is four (4) years. Few MD/MS courses are five (5) years. The duration of courses can be further increased by the concerned Board of Studies of Medicine/Dentistry. All courses are divided into two phases

The Phase-I of four (4) year courses is spread over one year where as the phase-I of five year courses is spread over two years. The phase-I and Phase-II are separated by Intermediate Evaluation.

ADMISSION CRITERIA

M.B.B.S. B.D.S.

1. One year House Job.
2. Recommendations of the Supervisor/Entry Test.
3. Credit for Marks in Professional Examinations, Rural – Army Service. Additional Experience and Published Research.

LIST OF COURSES

M.D. (Medicine and Allied Subjects.)

- a. i. MD (Internal Medicine)
- a. ii. MD (Psychiatry)
- a. iii. MD (Neurology)
- a. iv. MD (Paediatrics)
- a. v. MD (Clinical Physiology and Biochemistry)
- a. vi. MD (Clinical Pharmacology and Therapeutics)
- a. vii. MD (Dermatology)
- a. viii. MD (Advanced Pathology and Bacteriology)
- a. ix. MD (Hematology)

For Students: Regulation on the Requirements for the Studies, Curriculum Content and Requirements Degrees of MD/MS/MDS/M.Phil of the University of the Punjab

- (c) ii. MDS (Prosthodontics)
- (c) iii. MDS (Orthodontics)
- (c) iv. MDS (Operative Surgery including Crown and Bridge)
- (c) v. MDS (Oral Medicine and Periodontology)
- (c) vi. Any other subject as approved by the Board of Studies in Medicine/Dentistry from time to time

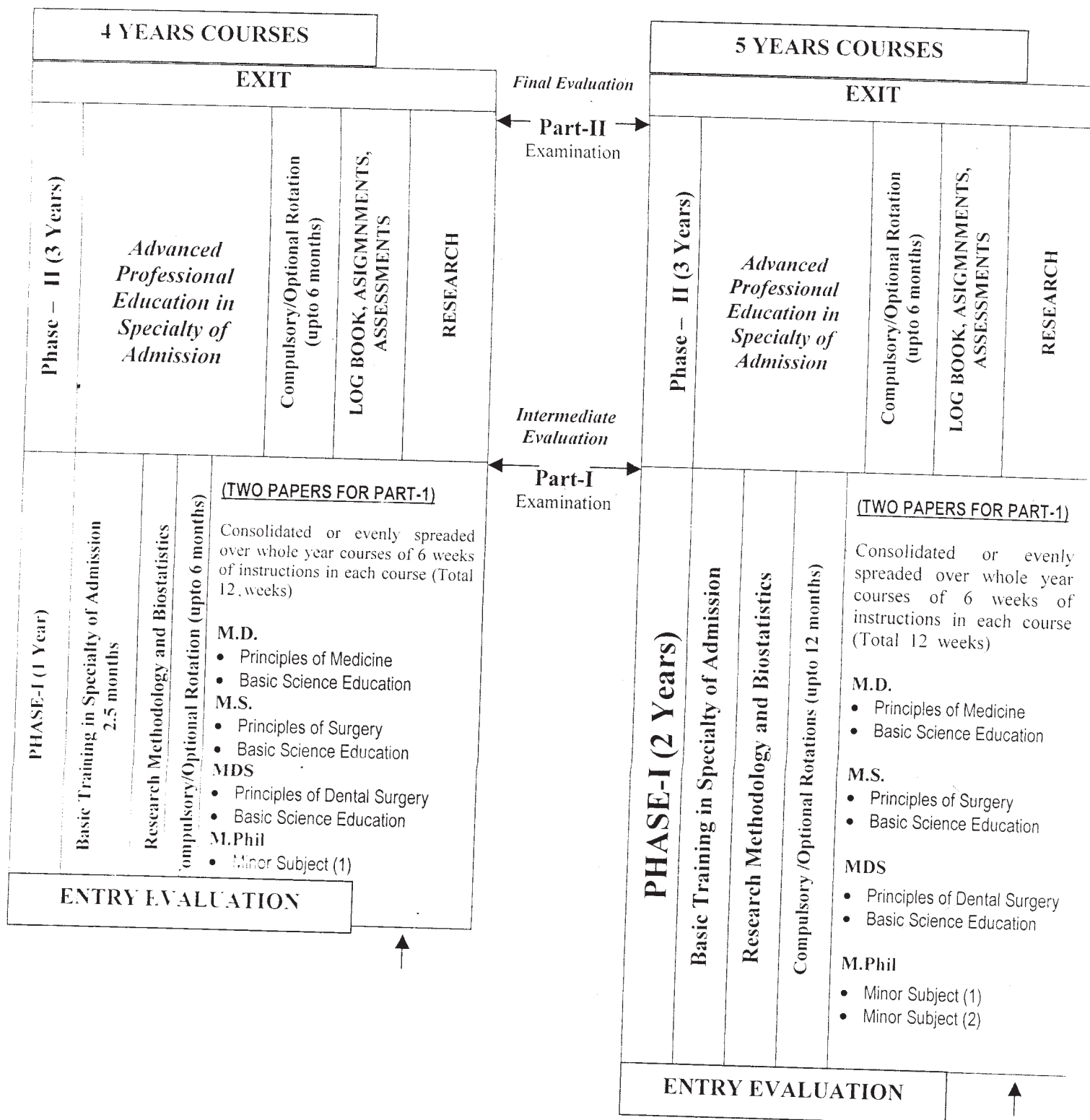
(d) M.Phil – Basic Sciences.

- ✓ (d) i. M.Phil (Anatomy)
- (d) ii. M.Phil (Morbid Anatomy and Histopathology)
- (d) iii. M.Phil (Microbiology)
- (d) iv. M.Phil (Physiology)
- (d) v. M.Phil (Biochemistry)
- (d) vi. M.Phil (Forensic Medicine and Toxicology)
- (d) vii. M.Phil (Pharmacology)
- (d) viii. M.Phil (Medical Virology)
- (d) ix. M.Phil (Immunology and Serology)
- (d) x. M.Phil (Hematology)
- (d) xi. M.Phil (Chemical Pathology)
- (d) xvii. Any other subject as approved by the Board of Studies in Medicine/Dentistry from time to time

Dental Sciences

- (d) xii. M.Phil (Community Medicine)
- (d) xiii. M.Phil (Science of Dental Materials)
- (d) xiv. M.Phil (Oral Anatomy, Physiology and Histology)
- (d) xv. M.Phil (Oral Pathology)
- (d) xvi. M.Phil (Community Dentistry)
- (d) xvii. Any other subject as approved by the Board of Studies in Medicine/Dentistry from time to time

4. SCHEME OF THE COURSES



5. EXAMINATIONS

Part-I (After Phase-I Education) Intermediate Evaluation.

M.D.

- Paper-1 Principles of Medicine
- Paper-2 Basic Science Education

M.S.

- Paper-1 Principles of Surgery
- Paper-2 Basic Science Education

M.D.S.

- Paper-1 Principles of Dental Surgery
- Paper-2 Basic Science Education

M. Phil

Paper-1 Minor Subject (1)

Paper-2 Minor Subject (2)

Part-II (After Phase-II Education) Final Evaluation.

- Log Book Evaluation
- Thesis Evaluation
- Practical and Oral Examination
- Theory Papers

MD/MS/MDS

- i. Paper-1 of Special Subject
- ii. Paper-2 of Special Subject
- iii. Paper-3 Pathology of Special Subject

M.Phil (Basic Sciences)

- i. Paper-1 of Special Subject
- ii. Paper-2 of Special Subject
- iii. Paper-3 of Elective Basic Science

✓ 6.

DEGREE AWARDING

After successful completion of the course the MD/MS/MDS/M.Phil Degrees with title of Specialty in the parenthesis will be awarded. eg. M.D. (Cardiology). M.S. (Orthopaedics), MDS (Prosthodontics), M.Phil (Anatomy) etc.

Regulations
for
M.D./M.S./M.D.S./M.Phil Courses

The respected Things are

SECTION-1

GENERAL INFORMATION CONCERNING MD / MS / MDS / M.Phil COURSES

1.1- GENERAL INSTRUCTIONAL OBJECTIVES.

To improve the quality of postgraduate medical education at the University of Punjab, the general instructional objectives of MD /MS / MDS / M.Phil courses have two major objectives.

- i. To assist the supervisors of the MD/MS/MDS/M.Phil courses to conduct the courses and maintain educational quality of their courses.
- ii. To provide a means for objective assessment of the courses, the sites of education and the candidates

1.1 Aims and Objectives of MD / MS / MDS / M.Phil Courses

The aims and objectives of the higher medical educational programs must be,

1. That the student accepts his/her special subject of education in its full sense as a life long activity and that he/she is prepared to invest time and effort to acquire, maintain and further improve his/her own knowledge and skills.
2. A critical appreciation of techniques, procedures carried out in his/her special subject of education; an understanding of scientific methods, reliability and validity of observations and the testing of hypothesis.
3. The ability and willingness to adopt a problem solving approach to manage clinical situations included in the definition of his/her special subject of education.
4. The ability to plan and interpret a management program with due regard to the patients' comfort and economic factors.
5. His / her awareness of the role of specialists of his/her special subject of education in health / rehabilitation / welfare teams and his/her willingness to work cooperatively within such teams.
6. The awareness that he/she has to create his/her own professional impact as a capable Specialist/ Teacher / Scholar of his specialty in the world.
7. To pursue and develop the basic scientific pursuits and guideline for scientific discoveries to strengthen knowledge further about human body requirements.

1.2 ORGANIZATION OF THE UNIVERSITY OF PUNJAB WITH RESPECT TO MD/MS/MDS/M.PHIL COURSES.

- a. Board of the Faculty of Medicine and Dentistry
- b. Board of Studies of;
 - i. Medicine, and
 - ii. Dentistry
- c. Committee of the Specialty Faculty of each Course. (Subject).
 - i. Curriculum Sub-Committee.
 - ii. Accreditation Sub-Committee.
- d. The Principals / Deans of the affiliated Colleges/Institutes/Hospitals.
- e. The Director Postgraduate Education of the affiliated Colleges/Institutes/Hospitals.
- f. The Supervisors of the Course at each Department/Unit.

1.3 APPROVED EDUCATION SITES.

The Dean Faculty of Medicine and Dentistry will maintain an updated list of all approved educational sites in the Colleges/Institutes/Hospitals affiliated with the University of the Punjab where MD/MS/MDS/M.Phil Courses are conducted. The Dean of the Faculty of Medicine and Dentistry of the University of the Punjab will provide the Vice Chancellor of the University of the Punjab with a copy annually or upon request.

SECTION-2

GENERAL STANDARDS

2.1. GENERAL STANDARDS APPLICABLE TO THE UNIVERSITY AND AFFILIATED INSTITUTIONS.

2.1.(a) University Structure.

1. The Dean Faculty of Medicine and Dentistry, through Associate Dean of the Postgraduate Medical Education is responsible for the overall conduct and supervision of Postgraduate Medical Education within the University of the Punjab.
2. The Board of Studies in Medicine and Dentistry are responsible for development and review of all aspects of MD/MS/MDS/M.Phil Courses. The Associate Dean of Postgraduate Medical Education will be ex-officio member of these Boards and will be member of all Committees and Subcommittees on Postgraduate Medical Education. The Boards of Studies in Medicine and Dentistry are responsible to:
 - a) establish general policies of Postgraduate Medical Education;
 - b) conduct internal reviews of all courses of MD/MS/MDS/M.Phil;
 - c) establish supervising policies for selections, evaluation, promotion and dismissal of candidates in all programs;
 - d) establish policies to ensure adequate supervision of candidates in order to protect and preserve the best interest of the patient, the students of the undergraduate courses, the attending physicians and the candidates. The components of the supervision of the candidates include:
 - i) the candidates are involved in applied work in their special subject including patient care/teaching of students.
 - ii) assurance of progressive competence of the candidates for graded independent performance.
 - iii) policies regarding the physical presence of the attending physicians during act or procedures performed by the candidates.
 - e) ensuring that all MD/MS/MDS/M.Phil courses address the required general skills of medical practice/teaching.

3. The function of the Committee of each Specialty Faculty in which MD/MS/MDS/M.Phil courses are run may be facilitated by means of Subcommittees (e.g. Curriculum Committee, Accreditation Committee etc.). The Committees and Subcommittees, if any, must meet regularly and minutes must be kept.
4. The Faculty of each Specialty should be made up in such a way as to avoid being unduly large and yet provide representation for following groups:
 - a) Supervisors
 - b) Administrators of affiliated institutions
5. The Principals/Deans of affiliated Institutions must appoint Director of Postgraduate Medical Education in their Institutions.

2.1.(b) **SITES FOR POSTGRADUATE MEDICAL EDUCATION.**

1. In all educational sites, the staff involved in Postgraduate Medical Education must hold appointment acceptable to the University and to the Institution.
2. All educational sites, existing at the time of notification of this document will be considered affiliated/approved for running respective MD/MS/MDS/M.Phil courses. All new educational sites will be visited and approved by the Faculty of the Specialty of the University of Punjab.
3. All educational sites will undergo inspection every three years by the Faculty of the relevant Specialty of the University of the Punjab.
4. A list of minimum acceptable facilities which are required for training of candidates for a specific course will be developed by the Committee of the Faculty of the same Specialty. The educational sites will provide these facilities for training of candidates.
5. At all educational sites, accurate and complete medical records of all patients must be kept. Institutions must ensure that candidates take part in completion of charts.
6. All educational sites must be actively involved in a formal quality assurance/improvement program, including reviews of deaths and complications.
7. The Specialty departments/units, in private / public sector, that have supervisors with qualifications and experience which are acceptable to the

University of Punjab; and where the quantity and quality of technical work will be found satisfactory by the Affiliation Committee of the University of the Punjab will be approved for running a specific course. The number of candidates which can be admitted/enrolled in these education sites will be fixed by the Faculty of same Specialty.

8. The specialty departments/units in private or public sector that have facilities and faculty that are acceptable to the University of the Punjab, for enrollment of the candidates; but cannot enroll candidates, due to the reason that these centers do not have approved Supervisors; can enroll the candidates under supervision of the Supervisor of the already affiliated Department / Unit. In this case, the Professor or the Head of the department/unit will act as the Supervisor for the candidates admitted in these hospitals.
9. The date for the visit of the Accreditation Committee are proposed by the Principal/Dean of the Institution with consultation of the Head of the Department/Unit.
10. All new educational sites departments/units are visited and inspected by the Accreditation Sub-Committee of the Committee of the Specialty Faculty.

2.2. GENERAL STANDARDS APPLICABLE TO ALL MD/MS/MDS/M.PHIL COURSES.

2.2.(a) Administrative Structure.

1. There must be a Supervisor, with the qualifications that are acceptable to the University of Punjab, responsible for the overall conduct of the integrated Postgraduate Medical Education. The change in Supervisor can be allowed by the concerned Board of Studies in Medicine or Dentistry.
2. There must be Co-supervisors appointed by the Supervisor. The Co-Supervisors will have qualifications equal to the Supervisors but shall not Professor/Head of Department. There must be active liaison between the Supervisor and the Co-supervisor.
3. There must be Director of Postgraduate Medical Education in each Institution appointed by the Principal/Dean of the Institution.

4. There must be a Committee of each Specialty Faculty of the University of the Punjab; to assist the supervisors of their course in the planning, organization and supervision of the course. The Committee of each Specialty Faculty is responsible to revise its curriculum every five (5) years, and re-inspect approved education sites every three (3) years.
5. The members of each Committee of Specialty Faculty will be appointed by the Board of Studies in Medicine/Dentistry. The Members must be working as Supervisors/Co-Supervisors in the same Specialty and should have MD/MS/MDS/M.Phil Degrees in the same Specialty. The Convenor of each Committee of Specialty Faculty should have MD/MS/MDS/M.Phil Degrees in the same Specialty, and must be actively functioning as Supervisor in his Specialty.

2.2.(b) Goals and Objectives.

1. There must be a statement of the overall goals of the course.
2. There must be specific education objectives with respect to knowledge, skills, and attributes for each module/rotation or other educational experience.
3. The statement of goals and objectives should be reviewed periodically by the Committee of the same Specialty Faculty.

2.2.(c) Organization of the Course.

1. There must be an organized program of rotations and other educational experience, designed to provide each resident with the opportunity to fulfil the educational requirements and achieve competence in the Specialty.
2. The course must be organized such that candidates are given professional responsibility, under appropriate supervision, according to their level of training, ability and experience.
3. At some point in the course, under appropriate supervision, each candidate must assume the role to educate his junior candidates.
4. Service responsibilities and on-call duties must be assigned in a manner which ensures that candidates are able to attain their educational objectives. Service demands must not interfere with the ability of the candidates to follow the academic program.

2.2.(d) Resources.

(The Committee of the Specialty Faculty is responsible to determine the resources for its respective course)

1. There must be a sufficient number of qualified teaching staff to provide appropriate teaching and supervision of the candidates.
2. The number and variety of patients of both sexes must be sufficient to meet the educational needs.
3. The teaching staff must exercise double responsibility of providing high quality, ethical patient care or laboratory work and excellent teaching.
4. There must be an experience-based learning process.
5. There must be easy access to a major Library. There should be access to a collection of appropriate texts and journals during evenings and weekends.
6. The physical and technical resources available to the program must be adequate to meet the needs of the course.

2.2.(e) Academic and Scholarly aspects of the Courses.

The academic and scholarly aspect of the course must be commensurate with the concept of a University Postgraduate Education. The quality of Scholarship in the course will, in part, be demonstrated by a spirit of enquiry during discussions, seminars, rounds, and conferences. Scholarship implies an in-depth understanding of basic mechanisms of normal and abnormal states and the application of current knowledge to practice. After submitting the research thesis, the candidate is expected to have acquired the ability to develop a research proposal, review the Literature, construct relevant forms to gather data, to analyze the results and derive conclusions, discuss them and write a report.

1. Organized scholarly activities such as journal clubs, research conferences and seminars must be a regular part of every course.
2. The academic program must include organized teaching in the basic and clinical sciences relevant to the specialty.
3. The candidates must be given opportunities to develop effective teaching skills by teaching junior colleagues and students, as well through

conference presentations, clinical and scientific papers and patient education.

4. A satisfactory level of research and scholarly activity must be maintained among the faculty identified with the course.

5.

To promote skills in self-assessment and self-directed life-long learning, the candidates should be provided opportunities to attend conferences outside the University of the Punjab.

2.2.(f) Evaluation of Performance of Candidates.

1. The in-training evaluation system must be based on the goals and objectives of the course and must clearly identify the methods by which residents are to be evaluated.
2. Knowledge should be assessed using appropriate written and oral examinations as well as direct observations.
3. Clinical/teaching skills should be assessed by direct observation.
4. Communication skills should be assessed by direct observation of candidate interactions with patients, students, their families, and colleagues.
5. Interpersonal skills should be assessed in collaboration with all other members of the patient care team.
6. Teaching skills should be assessed by written student evaluation, and by direct observation of the resident in seminar, lectures and case presentations.
7. Attitudes should be assessed by interviews with the peers, supervisors, allied health personal, and patient and their families.
8. There must be helpful and honest feedback to the candidate.
9. A final in-training report must be provided by the Supervisor to the University for each candidate who is eligible to sit the final examination of the University.

SECTION-3

REQUIREMENTS FOR TRAINING IN MD/MS/MDS/MPhil COURSE OF THE UNIVERSITY OF PUNJAB.

3.1. LENGTH OF THE COURSE.

- 3.1.(a) Minimum duration course of each specialty in the MD/MS/MDS/M.Phil, will be four (4) years. The duration can be further increased on the recommendations of the Committee of the Specialty Faculty of each subject, by the concerned Board of Studies in Medicine/Dentistry.
- 3.1.(b) Up to one year of experience in the specialty of admission, that has been obtained in a recognized institution by the candidate, will be acceptable, and will be adjusted in Phase-II of the MD/MS/MDS/M.Phil courses.
- 3.1.(c) The supervisor determines the timing of the rotations and postings and their educational content.
- 3.1.(d) Candidate enrolled in MD/MS/MDS courses, for research can spend a maximum of 12 months in basic science/animal laboratory, and candidates enrolled in M.Phil can spend maximum of 12 months for research in the clinical departments during the whole course.

3.2. TRAINING ORGANIZATION AND RESPONSIBILITIES

3.2.(a) Qualifications of the Supervisor.

The Supervisor of M.D./M.S./M.D.S./M.Phil Courses course must have qualifications of M.D./M.S./M.D.S./ M.Phil, respectively, and must be working as Professor or Head of the Department or Unit; or have qualification and experience equivalent to them as considered by the University of Punjab. All Professors / Head of the departments working in institutions affiliated with the University of Punjab will apply (through Principal/Dean) for approval to become the Supervisor, to the Board of Studies of Medicine of the University of the Punjab.

3.2.(b) Qualifications of Co-Supervisors.

The Co-Supervisors will have same academic qualifications as those of the Supervisors. They must work as trainer under the Supervisor in the same department/unit or in a department/unit which is affiliated to the department of the Supervisor who is located in a Teaching Institution. The Co-Supervisors will be assigned candidates by the Supervisor.

3.2.(c) Responsibilities of the Institutions of Training.

1. The Institution has a regular Director of the Postgraduate Medical Education to assist the Dean / Principal to run the postgraduate education in the institution.
2. The Institution / Departments have their Training Review Committee, to sort out the complaints and blames of the Trainees.
3. The Institutions/ Departments must make all possible efforts to arrange salaries/stipends/ honorarium to the Trainees as the reward for the work they do in the department.
4. The Institutions / Departments must arrange proper duty rooms / duty stations for the Trainees.
5. The Institutions / Departments provide beds to sleep to the Trainees who are on Emergency Duties (To sleep when they are free, this will enhance their out put next day).
6. The Institutions / Departments must arrange Inspection (Accreditation) of each Department/Unit, every 3 years.
7. The Institutions / Departments must participate in revision of the curriculum at least every 5 years.

3.2.(d) Responsibilities and Rewards of the Supervisor.

Responsibilities:

1. The Supervisor must ensure the provision of adequate facilities, teaching staff (regular and visiting), teaching beds, operation theater facilities, out patient facilities, education resource materials and research facilities.
2. The Supervisor must ensure that on average, residents should not participate in direct patient care or laboratory work for more than 80 hours per week.

3. The Supervisor is responsible for the selection of candidates in his department/unit, and must ensure that all selected candidates meet the eligibility requirements of the University of Punjab.
4. The Supervisor must monitor each candidate's performance and progress in the development the cognitive and technical skills, ethics, and affective qualities needed by specialist / teacher in his specialty.
5. It is the Supervisor's responsibility to counsel, censure, or, after due process, to dismiss a candidates who fails to demonstrate appropriate competence, reliability or ethics.
6. The Supervisor must maintain a file of current, written patient care statistics, the operative experience of individual candidate, policies on duty hours and supervision and regular assessment of resident performance. These documents must be provided on request to the members of the Inspection Committee of the concerned Committee of Specialty Faculty of the University of Punjab.

Rewards

1. Psychological satisfaction and of giving education to the candidates .
2. Oppertuninity to promote science and research in the field of interest.
3. Rs. Ten Thousands (10,000) will be awarded to the supervisors and co-supervisors on the successful completion of each candidate in MD / MS / MDS / M.Phil course. (75% to the supervisor and 25% to the co-supervisor)

3.2.(e) Responsibilities of the Teaching Staff.

It is the responsibility of the teaching staff to:-

Ensure that the structure and content of the curriculum on paper is practiced and that candidates are provided adequate experience in patient management/teaching. This responsibility include direct supervision in all patient care/teaching settings, including operative, inpatient, outpatient and emergency, and participation in patient care conferences and other educational activities.

All three faculty members (Professor, Associate Professor and Assistant Professor) in a unit/department must devote 20 hours each week to the training of candidates. Efforts should be made to have one Full Time Faculty member devoting 45 hours per week for post graduate training.

The teaching staff must participate in appropriate scientific societies, pursue their own continuing education, and demonstrate an active interest in related research.

3.2.(f) **Number of Candidates in each department/unit (educational site)**

For MD/MS/MDS/M.Phil Courses the number of candidates will be based upon the;

1. Number, qualifications and commitment of the Trainers; one trainee each year for each of the trainer in the department. (Trainers includes whole time Consultants, Senior Registrars, Senior Lecturers , Assistant Professors, Associate Professors). The Professor/Head of the (Department/Unit) can have two (2) Trainees per year.
2. The volume and variety of patient population available for educational purposes. The Units/Departments providing all 7 days a week emergency cover may have one (1) additional trainee each year.
3. The departments/units running extra ordinary number of special clinics/project/research can have one (1) candidate more each year.
4. The quality of the education offering and totality of institutional resources.
5. If number of special projects / volume of the technical work load / volume of patient load justifies, then the unit / department can have additional one candidate per year

SECTION-4

REGULATIONS REGARDING ADMISSION FOR MD / MS / MDS / M.Phil - COURSES

The Registrar of the University of Punjab will admit students in the above-mentioned courses.

4.1. Admission Criteria;

4.1.(a) General Requirements

- 1- MBBS from the University of Punjab or equivalent.
- 2- One year house job after graduation.

4.1.(b) Special Requirements

- (i) The number of candidates will not exceed the number of training posts available. The Evaluation Certification by the Professor/Head of the Department/Unit that candidate have been evaluated and found fit for post graduation in same specialty.
- (ii) If the number of candidates will not exceed the number of available slots, the admission will be based upon the above mentioned general requirements and the recommendations of the Supervisor.
- (iii) When large number of candidates will apply for small number of seats, the merit will be determined as sum of total marks of
 - 1- % of Marks obtained in Entry Evaluation (which will be Oral/Written or both as decided by the Board of Studies).
 - 2- % of Sum of Marks obtained in all Professional Examinations minus 4 marks for each extra attempt during professional examinations.
 3. 2 marks for each six months of experience in the specialty of interest; obtained in a recognized teaching hospital, but not more than 8 marks.
 4. Five (5) marks for two (2) years Rural Health Service/Army Service.
 5. Five (5) marks for carrying out research project and publishing paper in a recognized journal.

After registration/enrollment at the University of Punjab, the student will submit his / her joining through his/her supervisor and will be admitted in the office of the Principal / Dean of the College / Institute of the Department of the study.

4.2. REGISTRATION (ENROLMENT) FEE.

The candidate will be Registered with the University of Punjab and Registrar will maintain a record of Registration. The University of Punjab will charge Rs. 1000/- as Registration Fee to be paid at the time of application through Bank Chalan in the account of the University of Punjab.(The Fee can be changed from time to time by the Concerned Board of Medicine / Dentistry).

4.3. ADMISSION FEE.

Admission Fee of Rs . 1000/ will be deposited in the office of the Principal/ Dean of the Institution at the time of Admission.(The fee can be changed from time to time by the concerned Board of Medicine and Dentistry)

4.4 TUTION FEE.

All candidates of MD/MS/MDS/M.Phil will pay Rs. 2000.00 as tuition fee for the phase-1 of their courses.(Instructions during year-1) at the Principal / Dean's Office. (to pay tuition fee to the teachers involved in Phase-I education).

4.5 NUMBER OF ADMISSIONS IN EACH COURSE IN EACH INSTITUTION.

The Principals/Deans of all Colleges/ Institutes will provide a list of the Title of Courses and No. of students they can admit in each course in each year in various Departments of their College/Institute to the Dean Faculty of Medicine and Dentistry of the University of Punjab for record purposes and of the Registrar of the University of Punjab for admission purposes.

SECTION-5

GENERAL OUTLINES OF COURSE CURRICULUM CONTENT **(SYLLABUS)**

The Curriculum of approved course in any Special Subject will be revised by the Committee Faculty of the Specialty Faculty in the same Subject as Constituted by the Concerned Board of Studies of The University of Punjab. The curriculum content is finally approved by the Concerned Board of Studies.

The curriculum content of the Course is revised at least every 5-years.

The Committee of the Specialty Faculty of a course in a special subject is responsible to inspect the departments where education is imparted at least every 3-years to ensure that:-

- a) The Curriculum on papers is the curriculum in Practice, and
- b) The Department has all basic requirements for providing education included in the curriculum content of the course.

5.1. Guidelines to Prepare Curriculum.

1. Title of the Course e.g. M.Phil (Physiology)
M.S. (Orthopaedics)
M.D. (Cardiology)
M.D.S. (Prosthodontics)
2. Aims and Objectives of the Course
(List of the General Instructional Objectives [GIO])
3. Specific Instructional Objectives.
4. Details of the Curriculum Content arranged year-wise along with specific Instructional Objectives of the Curriculum Content for each year.
5. The Curriculum Content arranged Calendar-wise, clearly mention the Time dedicated to the Compulsory Core Curriculum and the Time dedicated for the Electives (Minor Rotations) Available.
6. Instructional Strategies. Instructional (Lectures, Seminars, Workshops, Tutorials); Experiential (Surveys, Field Visits, Apprenticeships) or self study.
7. List and durations of different electives along with their Instructional Objectives.
8. The Specific Instructional Objectives (SIO) will consist of two components of education (Theory & Technical Skills), which a candidate is expected to exhibit at the end of each year of training.
9. List of minimum acceptable technical requirements to run a course in the special subject.
10. List of Scholarly activities required for the course, i.e., Library, Computers, Internet, Seminars, Workshops, Lectures, Journal Clubs, Case Discussions, Field Surveys etc.
11. Format of formative longitudinal assessments i.e., Tests, Log Books, Assignments etc.

SECTION-6

CURRICULUM CONTENT FOR PHASE-I AND PHASE-II EDUCATION OF MD/MS/MDS/M.Phil COURSES

6.1 Specialty of Admission (Major Compulsory Subject).

All Specialties enlisted in Section-1 at para 1.4, in which MD/MS/MDS and M.Phil Courses are run, must have their separate curriculum content based on the outlines mentioned in Section-6. These curriculum content will be prepared by the Committees of Specialty Faculty and must be approved by the Board of Studies of Medicine or Dentistry.

6.2. M.D. Courses.

6.2.(a) List of M.D. Courses (Medicine and Allied Subjects.)

- 6.2.(a) i. M.D. (Internal Medicine)
- 6.2.(a) ii. M.D. (Psychiatry)
- 6.2.(a) iii. M.D. (Neurology)
- 6.2.(a) iv. M.D. (Paediatrics)
- 6.2.(a) v. M.D. (Clinical Physiology and Biochemistry)
- 6.2.(a) vi. M.D. (Clinical Pharmacology and Therapeutics)
- 6.2.(a) vii. M.D. (Dermatology)
- 6.2.(a) viii. M.D. (Advanced Pathology and Bacteriology)
- 6.2.(a) ix. M.D. (Hematology)
- 6.2.(a) x. M.D. (Pulmonology including Tuberculosis and Chest Diseases)
- 6.2.(a) xi. M.D. (Gastroenterology)
- 6.2.(a) xii. M.D. (Endocrinology)
- 6.2.(a) xiii. M.D. (Cardiology)
- 6.2.(a) xiv. M.D. (Radiology)
- 6.2.(a) xv. M.D. (Oncology)
- 6.2.(a) xvi. MD (Nephrology)
- 6.2 (a).xvii MD (Physical Medicine and Rehabilitation)
- 6.2.(a) xviii MD (Hospital Administration)
- 6.2.(a) xix MD (Preventive Paediatrics)
- 6.2 (a) xx Any other subject as approved by the Board of Studies in Medicine/Dentistry from time to time

6.2.(b) Outlines of curriculum content for Phase-I Education for all M.D. Courses

The first year after admission will include following courses. All courses will focus on education that is relevant to the Special Subject (Subject of Admission):

1. Introduction to the Special Subject.
2. Bio statistics and Research synopsis writing.

3. **Principles of Internal Medicine, relevant to special subject of each course of MD;**

The candidates will go to the department of Internal Medicine and will be given education according to curriculum as mentioned in "*Principles of Medicine*". The course may be consolidated into six weeks instructions or spread over longer period during the year.

4. **Basic Science Education, relevant to special subject of each course of MD.**

The candidates will go to the departments of basic sciences and will be given "*Basic Science Education*" according to the curriculum.

The Essential Basic Sciences for M.D. Phase-I Education will comprise of General Pathology, Physiology, Pharmacology and Anatomy. The contents of basic science education focus the sections relevant to the specialty. The course may be consolidated into six weeks instructions or spread over longer period during the year.

Details will be prepared by Committee of Specialist Faculty of each subject.

6.2.(c) **Outlines of Curriculum Content for Phase-II Education for each M.D. Course.**

The draft will include details of the Curriculum Content of compulsory and optional rotations and research along with curriculum organizer.

6.3. **M.S. Courses.**

6.3.(a) **List of M.S. Courses (Surgery and Allied Subjects)**

- 6.3.(a) i. M.S. (General Surgery)
- 6.3.(a) ii. M.S. (Orthopaedic Surgery)
- 6.3.(a) iii. M.S. (Obstetrics and Gynaecology)
- 6.3.(a) iv. M.S. (Ophthalmology)
- 6.3.(a) v. M.S. (Ear, Nose and Throat (E.N.T))
- 6.3.(a) vi. M.S. (Higher Anatomy)
- 6.3.(a) vii. M.S. (Neurosurgery)
- 6.3.(a) viii. M.S. (Thoracic Surgery)
- 6.3.(a) ix. M.S. (Cardiac Surgery)
- 6.3.(a) x. M.S. (Urology)
- 6.3.(a) xi. M.S. (Anaesthesia)
- 6.3.(a) xii. M.S. (Paediatric Surgery)
- 6.3 (a) xiii Any other subject as approved by the Board of Studies in Medicine/Dentistry from time to time

6.3.(b) Outlines of Curriculum Content for Phase-I Education for each M.S. Courses.

The first year after admission will include following courses. All courses will focus on education that is relevant to the special subject (Subject of Admission).

1. Introduction to the Special Subject.
2. Biostatistics and Research Synopsis Writing.
3. **Principles of Surgery relevant to special subject of each course of MS**

Once a week (for 34 weeks) the candidates will go to the departments of General Surgery and will be given education in "*Principles of Surgery*". The course may be consolidated into six weeks instructions or spread over longer period during the year.

4. **Basic Science Education relevant to special subject of each course of MS**

The candidates will go to the department of basic sciences and will be given "*Basic Science Education*".

The Essential Basic Sciences for M.S. Phase-I Education will comprise of General Pathology, Physiology, Anatomy, Pharmacology and Biochemistry. The contents of basic science education focus the sections relevant to the special subject education. The course may be consolidated into six weeks instructions or spread over longer period during the year.

Details will be prepared by Committee of Specialty Faculty of each subject.

6.3.(c) Outlines of Curriculum Content for Phase-II Education for each M.S. Course.

This draft will include details of the Curriculum Content of compulsory and optional rotations and research according to the outlines given in Section-6.

6.4. M.D.S. Courses.

6.4.(a) List of M.D.S. Courses (Dental Sciences)

- 6.4.(a) i. M.D.S. (Oral and Maxillofacial Surgery)
- 6.4.(a) ii. M.D.S. (Prosthodontics)
- 6.4.(a) iii. M.D.S. (Orthodontics)
- 6.4.(a) iv. M.D.S. (Operative Surgery including Crown and Bridge)
- 6.4.(a) v. M.D.S. (Oral Medicine and Periodontology)
- 6.4 (a) vi. Any other subject as approved by the Board of Studies in Medicine/Dentistry from time to time

6.4.(b) Outlines of Curriculum Content for Phase-I Education for each M.D.S. Courses.

The first year after admission will include following courses. All courses will focus on education that is relevant to the special subject (Subject of Admission).

1. Introduction to the Special Subject.
2. Biostatistics and Research Synopsis Writing.
3. **Principles of Dental Surgery relevant to special subject of each course of MS**

The candidates will attend this course according to the curriculum. The course may be consolidated into six weeks instructions or spread over longer period during the year.

4. **Basic Science Education relevant to special subject of each course of M.D.S.**

The Essential Basic Science for M.D.S. Phase-I Education will comprise of General Pathology, Anatomy, Physiology, Dental Materials. The contents of basic science education focus the sections relevant to the MDS courses. The course may be consolidated into six weeks instructions or spread over longer period during the year.

Details of the curriculum will be prepared by the Committee of Specialty Faculty of each Subject of M.D.S.

6.4.(c) Outlines of Curriculum Content for Phase-II Education for each M.D.S. Course.

This draft will include details of the Curriculum Content of compulsory and optional rotations and research according to the outlines given in Section-6.

6.5. M.Phil Courses.

6.5.(a) List of M.Phil Courses – Basic Sciences.

- 6.5.(a) i. M.Phil (Anatomy)
- 6.5.(a) ii. M.Phil (Morbid Anatomy and Histopathology)
- 6.5.(a) iii. M.Phil (Microbiology)
- 6.5.(a) iv. M.Phil (Physiology)
- 6.5.(a) v. M.Phil (Biochemistry)
- 6.5.(a) vi. M.Phil (Forensic Medicine and Toxicology)
- 6.5.(a) vii. M.Phil (Pharmacology)
- 6.5.(a) viii. M.Phil (Medical Virology)
- 6.5.(a) ix. M.Phil (Immunology and Serology)
- 6.5.(a) x. M.Phil (Hematology)
- 6.5.(a) xi. M.Phil (Chemical Pathology)
- 6.5.(a) xii. M.Phil (Community Medicine)
- 6.5 (a) xviii Any other subject as approved by the Board of Studies in Medicine/Dentistry from time to time

Dental Sciences

- 6.5.(a) xiii. M.Phil (Dental Materials)
- 6.5.(a) xiv. M.Phil (Oral Anatomy, Physiology and Histology)
- 6.5.(a) xv. M.Phil (Oral Pathology)
- 6.5.(a) xvi. M.Phil (Community Dentistry)

- 6.5 (a) xvii Any other subject as approved by the Board of Studies in
Medicine/Dentistry from time to time

**6.5.(b) Outlines of Curriculum Content for Phase-I Education for each M.Phil –
(Basic Science) Courses.**

The first year after admission will include following courses.

1. Introduction to the Special Subject.
2. Biostatistics and Research Synopsis Writing.
3. Minor Subject-1 (Basic Sciences)
4. Minor Subject-2 (Basic Sciences)

For M. Phil in each minor subject a candidate is given choice to select a set/pair of minor subjects (2) from the available list. The candidate will be given instruction in each of these minor subjects. All Courses will focus education that is relevant to the Special Subject. The detailed curriculum will be developed by the Committee of Specialty Faculty of each Subject of M.Phil for each paper. The course may be consolidated into six weeks instructions or spread over longer period during the year.

**6.5.(c) Outlines of Curriculum Content for Phase-II Education for each M.Phil –
(Basic Science) Courses.**

This draft will include details of the Curriculum Content of compulsory and optional rotations and research according to the outlines given in Section-6.

EXAMINATIONS.**7.1 Entry Evaluation;**

If the number of candidates will be more than the available seats, then the University of Punjab will hold Entry evaluation, every year on the date as announced by the controller of examination of University of Punjab. The examination will consist of Written Paper or Interview or Both, as approved by the Boards of Studies of Medicine and Dentistry.

The Fee for Entry Evaluation will be determined by the Board of Studies of Medicine and Dentistry

7.2 Intermediate Evaluation; (Part-1 Examination)

- (a) All candidates admitted in MD /MS / MDS / M.Phil courses will appear in Part-1 examination at the end of their year -1 of Training.
- ✓(b) The candidates will be expected to pass this examination within three attempts.
- (c) The candidates who will not pass this examination within two and half years after their admission, their name will be removed from the course.
- (d) The Examination will Consist of Two Papers
 - i) **M.D. Courses.** (Separate Examination of each M.D. course)
 Paper-1; Applied Basic Science Education
 Paper-2; Principles of Internal Medicine.
 - ii) **M.S. Courses.** (Separate Examination of each M.S. course)
 Paper-1; Basic Science Education
 Paper-2; Principals of Surgery.
 - iii) **M.D.S. Courses.** (Separate Examination of each M.D.S. course)
 Paper-1; Basic Science Education
 Paper-2; Principals of Dental Surgery
 - iv) **M.Phil Courses.** (Separate Examination of each M.Phil course)
 Paper-1; Minor Basic Science (1)
 Paper-2; Minor Basic Science (2)
- (e) For Part-I Examination the Paper 1 and Paper 2 will be set by two panels of four (4) examiners comprising of one examiner will be of the specialty of the course and three specialists for each paper who were involved in teaching the curriculum of Paper 1 and Paper 2 of MD MS MDS M.Phil during the Phase-I respectively. Professor in the special subject of admission will act as Head Examiner.
- (f) Paper Weight age: Each paper will carry 100 Marks. Time allowed for each Paper will be three hours.
- (g) The Pass Marks will be 50% in each paper.

(h). Papers will have 20 Short Essay Questions of 5 marks each.

(i). **Eligibility to appear in Part-I Examination**

1. Application by the candidate recommended by the Supervisor.
2. Certificate by the Supervisor that candidate has regularly attended at least 75% of the Lectures, Seminars, Practical, demonstrations of the Phase-I education.
3. Bank Challan Form of payment of examination fee of Rs.500 (five hundred). The Board of Studies of Medicine/Dentistry can change the fee from time to time.

7.3. LONGITUDINAL EVALUATION (Log Book, Assignments, Assessments).

Through out the length of the course , the performance of the candidate will be recorded on the Log-Book. The Log Book will reflect the performance of the candidate on following parameters.

- i- Year wise record of the competence of technical skills.
- ii- Year wise record of the assignments.
- iii- Year wise record of the evaluation regarding affective and interpersonal behaviors.
- iv- Year wise record of Journal Clubs, Conferences, Lecturers attended.

The Log Books will be developed and approved by Committee of Specialty Faculty in each subject. The performance of the candidate will be evaluated on yearly basis.

Marks for each year	=	50
Total Marks for whole of Training Program	=	200

The evaluation will be made by the Supervisor (in consultation with the Co-Supervisor if appointed)

7.4. REASEARCH THESIS.

7.4.(a) Characteristics of the Research Topic.

The Research Topic in clinical subjects should address 20% to the Related Applied Basic Sciences and in Basic Sciences should address 20% to the Related Applied Clinical Sciences. The research Topic must consist of a reasonable sample size and sufficient No. of Variables to give training to the candidate to conduct research to acquire data. analyze

data and reach results, discuss results and draw conclusions and thus test the hypothesis.

7.4.(b) **Preparation of Synopsis.**

The applicants should organize thesis synopsis to address the guidelines mentioned in the Annex-II of the Revised Regulations for PhD Programs No. 1300/GS, Dated 21-06-2001.

7.4.(c) **Submission / Evaluation of Synopsis.**

Synopsis of research project will be submitted during the year-1 of the course. The Synopsis will be submitted through the supervisor to the Principal / Dean of the Institution. The synopsis will be evaluated by the following committee.

- | | |
|--|------------------|
| 1. Principal / Dean or his representative. | Chairman. |
| 2. Supervisor of the student | Member/Secretary |
| 3. Prof. Pathology | Member |
| 4. One Prof. appointed by the Principal/Dean | Member |

After the approval, by the Committee the synopsis will be submitted to the respective Board in the University of Punjab for further approval by the Vice Chancellor of the University of Punjab.

7.4.(d) **Submission of Thesis.**

- 1) The Thesis must be bound in accordance with the specifications mentioned in the Annex-III of the Revised Regulations for the PhD Programs No. 50/GS, Dated 16-12-2000.
- 2) Four (4) copies of the Thesis must be submitted at least 6-months before the commencement of the written and oral Examination.
- ✓ 3) The minimum duration between approval of synopsis of research and submission of thesis should be 2 years, the maximum duration will be 10 years.
- 4) The Thesis will be submitted along with Bank Challan Form of Rs. 2000 (two thousand) paid in the account of the University of Punjab.
- 5) Application for Thesis Evaluation recommended by the Supervisor.

7.4.(e) **The Evaluation of the Thesis.**

The thesis will be examined by three examiners appointed as examiner for the Final Examination of MD/MS/MDS/M.Phil courses. (Part-2 Examination). Each of the examiners will be provided a copy of the Thesis at least Three (3) months before the commencement of examination.

The Candidates will defend their Thesis in presence of their supervisor or Co-Supervisor during the Part-2 Examination. Total Marks for Thesis Evaluation will be 200. The Marks with two examiners will be 66 each and 68 with the head Examiner.

7.5 FINAL EVALUATION; (Part-2 Examination)

7.5.(a) Eligibility to appear in Part-2 Examination.

- 1- The candidate has completed the prescribed period of training of the course.
- ✓ 2- The candidate has passed the Intermediate Evaluation. (Part-1 Examination).
- ✓ 3- The candidate had submitted the Research Thesis at least 6-months before the date of commencement of oral examination.
- 4- Certificate by the Supervisor that the Log Book of candidate is complete in all aspects and is signed by the Co-Supervisor and the Supervisor. The candidate must secure at least 50% marks in log book evaluation by the Supervisor. The original Log Book will be presented by the candidate during Practical/Oral examination.
- 5- The application form for Part-II MD/MS/MDS/M.Phil examination with recommendations of the Supervisor.
- 6- The Bank Challan Form for the payment of the Examination Fee of Rs.2000 (two thousand). Board of Studies of Medicine/Dentistry can change the examination fee from time to time.

7.5.(b) Components of the Part-2 Examination.

→	1- Theory	(300 Marks)	60
→	2- Practical/Oral	(300 Marks)	60
→	3- Thesis.	(200 Marks)	
→	4- Log Book Evaluation	(200 Marks)	
	Total Marks =	1000	

(i) Theory. (Three Papers) (100 Marks and 3-hrs. each Paper)

a) MD / MS / MDS

Two Papers in the specialty.
One Paper in Pathology of Specialty.

b) M.Phil.

Two Papers in the Major Subject
One Paper in the Elective Subject.

(ii) Practical / Viva

a) MD / MS / MDS

Time for Pathology=33% (100 Marks)

Time for Specialty=66% (200 Marks)

Practical/Oral Examination for MD/MS/MDS.

Subject	Marks	Assessment Techniques	Marks
Special Subject	200	Long Cases – 2	40
		Short Cases – 4	40
		Specimens	20
		Instruments	20
		Investigation for interpretation including X-ray, MRI, CTS, Nuclear scans	30
		Table Viva	50
Special Pathology	100	Specimens	25
		Slides	25
		Table Viva	50

b) M.Phil

Time for Elective=33% (100 Marks)

Time for Major Subject=66% (200 Marks)

(iii) Defense of the Thesis.(200 Marks)

In the Presence of the Supervisor, or Co-Supervisor or representative of the Supervisor.

7.5.(c) Contents of the Theory Papers.

Paper 1 of Specialty – 50 % Long Essays and 50 % short essays.

Paper 2 of Specialty- 50% Long Essays and 50% short essays.

Elective / Pathology- 50% Long Essays and 50% short essays.

7.5.(d) Number of Examiners.

The Final Evaluation (Part-2 Examination) will be conducted by a board of three examiners.

MD MS/MDS: One Pathologist and Two examiners of the specialty of training. The Senior examiner of the specialty will be the chairman of the board.

M.Phil: One examiner of Elective subject and Two Examiners of the Major Subject. The senior examiner of the Major Subject will be the Chairman of the Board.

All examiners have equal functions except the chairman who will be responsible to conduct the examination process and send result to the controller university.

7.5.(e) **Result.**

The candidates who will Pass their Theory, Oral Practical, Defense of the Thesis will be declared pass.

The Candidates who will Pass in Thesis, but fail in Theory or Oral or both will re-appear only in Theory and Oral again.

The Candidates who will pass Theory and Oral, but fail Thesis will re-appear in Defense of the Thesis.

To pass as ordinary, the candidate must obtain 60% marks in each of 3 components.

To pass with distinction, the candidate must obtain overall marks should be 80 % or above.

SECTION-8

PERIOD OF TRANSITION

- 8.1 The General Information, General Standards, Regulations on the Requirements for the Studies, Outlines of the Curriculum and Examinations leading to the Degrees of MD/MS/MDS/M.Phil will come into practice, at once after their notification by the University of Punjab; and will be referred as “*MD/MS/MDS/M.Phil Curriculum – 2001*”.
- 8.2 Subsequent to the notification; all admission and courses and Examinations of MD/MS/MDS/M.Phil will be conducted according to the MD/MS/MDS/M.Phil Curriculum – 2001.
- 8.3 The candidates enrolled according to the Existing Calendars of the University of the Punjab will continue their education according to given programmes. However, candidates may apply to join MD/MS/MDS/M.Phil Curriculum – 2001.