

# **Syllabus for Postgraduate Entrance Examination** (2020)



**Medical Education Commission**  
Sanothimi, Bhaktapur

## Table of Contents

Table of Contents.....	1
Introduction:.....	2
Objectives: .....	2
Process: .....	2
General consensus:.....	3
Syllabus for Post Graduate Entrance Examination .....	4
1. MD/MS (Doctor of Medicine/Master of Surgery).....	4
2. MDS (Masters in Dental Surgery):.....	5
3. Master of Public Health (MPH)/ Master of Science in Public Health (MSc PH)/MPHN/MHPE/MPH(HPE)/MPH(PHSM):.....	6
4. MD Ayurveda (Kayachikitsa).....	7
5. Master in Nursing/M.Sc Nursing/Midwifery:.....	8
6. Master in Pharmacy (M. Pharm):.....	9
7. MSc MIT (Master of Science in Medical Imaging Technology):.....	10
8. MSc Clinical/Medical Biochemistry & MSc Clinical/Medical Microbiology: .....	11
9. MSc in Basic Medical Sciences (Anatomy, Physiology, Pharmacology, Biochemistry, Microbiology) .....	12
10. MPhil in Clinical Psychology:.....	13
11. Masters of Optometry (MOptom):.....	14
ANNEX.....	15

Medical Education Commission  
**Syllabus for Postgraduate Entrance Examination (2020)**

**Introduction:**

Health Professional education was started in Nepal formerly after establishment of Institute of Medicine under Tribhuvan University in 1972 beginning with training of middle level human resources for health. Bachelor level courses in Institute of Medicine was started in 1978 and postgraduate studies since 1982. Similarly BP Koirala Institute of Health Sciences was established in eastern Nepal in 1993, Manipal Academy of Health Sciences was established under Kathmandu University as a Kathmandu University affiliated private institutions in 1993. Kathmandu University School of Medical Sciences as constituent campus started MBBS program in 2001. Then National Academy on Medical Sciences was established in 2002 and Patan Academy of Health Sciences in 2008.

Since late 90's, over a period of decade, numerous private medical institutions were also opened in affiliation to various universities. In one hand, the rapid development of medical institutions helped for fulfilling the gap between need of human resources for health. In the other hand, there have been issues related to quality in health professional education and also the process and costs related to the entrance examination and student enrollment. In this context, National Medical Education Act 2075 has envisioned the common entrance examination to be conducted by Medical Education Commission for enrollment of students in various programs and colleges throughout the country. As per the board meeting of Medical Education Commission held on 2076.06.01(18 September 2019). Medical Education Commission bears the responsibility to conduct Postgraduate Entrance Examination in the current academic year and Bachelor level entrance exams from the subsequent year. For conducting the Postgraduate common entrance examination, the commission has felt the need to prepare a common syllabus in consultation with experts from various institutions with experience in postgraduate entrance examination.

**Objectives:**

1. To develop common syllabus for specific programs in PG entrance examination
2. To generate consensus and match logically between the existing PG entrance syllabus effective at various medical institutions
3. To find the scope of improvements / innovations in currently existing PG entrance examination

**Process:**

1. Institutions conducting postgraduate entrance examinations were officially corresponded to send the ongoing PG programs they are conducting and the syllabus for entrance examinations
2. The available syllabus for related disciplines from various institutions were compiled.
3. Team of experts in the related disciplines representing various institutions worked up for the common syllabus with the help of available compiled documents.
4. Workshop was conducted to scrutinize the contents and other aspects on entrance syllabus involving the experts who developed the syllabus and experienced experts conducting postgraduate entrance examinations in various institutions and head/chief of examination divisions in the respective institutions
5. Workshop involving all head of institutions and concerned regulatory authority was conducted to come up with the consensus.

## General consensus:

A common consensus on relevant issues related to syllabus were generated with brainstorming and regular discussions as per above mentioned process involving all stakeholders related to training of postgraduate academic programs.

1. Agreed to develop the syllabus for 11 groups representing all the PG programs:
  - a. MD/MS, MDS, MPH/MSc Public Health, MSc Nursing/MN, MD Ayurveda, MSc Biochemistry/MSc Microbiology, MSc in Basic Medical Sciences, M. Pharm, MSc MIT, M.Phil Clinical Psychology, MOptomety.
  - b. To make a single paper for different academic programs with same eligibility criteria. eg. MSc Nursing/MN, MPH/MSc PH, MSc Biochemistry/Microbiology, MSc Basic Medical Sciences Programs.
2. There should be professional council registration for applying to a postgraduate program except for the MPhil Clinical Psychology program where professional council registration is done only after completion of the course.
3. Consensus was generated to have entrance test paper with 200 MCQs to improve Content coverage as well as to match with the recent practice. This will also help differentiation of the candidates by minimizing the tie in the marks among the candidates.
4. MCQs will be of Single Best Response Type (Type A) with four options.
5. Consensus was generated to allow 3 hours with instruction to paper setter that the stem or vignette of the MCQ should not exceed 60 words.
6. Include 10 marks from the topics of CPD programs in MD/MS and MDS Program Including medical ethics, basic and advanced cardiac life support, communication skills, rational use of medicines, infection prevention etc. in order to address human sensitivity and professionalism.
7. Adopt Criterion Referenced Test with 50% pass mark with no negative marking.
8. Difficulty level of the items should be set from the time of item preparation as:
  - a. Recall: 30%
  - b. Understanding: 50%
  - c. Application and above: 20%

## Syllabus for Post Graduate Entrance Examination

### 1. MD/MS (Doctor of Medicine/Master of Surgery)

#### A. Eligibility:

- a. MBBS or equivalent
- b. Registered in respective professional council of applicant's country.
- c. One year experience for Nepalese candidates. (Except for MDGP and MD/MS in Basic Medical Sciences excluded)
- d. Candidate should score minimum of 50% (Pass Marks) in the Entrance Examinations conducted by Medical Education Commission for being eligible to be in the merit list

#### B. Exam Format:

- a. Single best response type with Multiple choice questions
- b. Four options (A, B, C, D)
- c. No. of questions - 200
- d. Recall: Understanding: Application–30:50:20
- e. Duration - 3 hours (including one time voluntary toilet break, to be allowed only after an hour)

#### C. Weightage :

S.N.	Subjects	Marks
	<b>Clinical</b>	
1.	Medicine	18
2.	Surgery	18
3.	Obstetrics and Gynecology	12
4.	Pediatrics	12
5.	Orthopedics	10
6.	Otorhinolaryngology	10
7.	Ophthalmology	7
8.	Anesthesiology	7
9.	Psychiatry	7
10.	Radiology	7
11.	Dermatology	7
	<b>Basic Medical Science</b>	
12.	Anatomy	12
13.	Physiology	12
14.	Pathology	10
15.	Pharmacology	10
16.	Biochemistry	8
17.	Microbiology	8
18.	Community Medicine + research Methodology - (6+4)	10
19.	Forensic Medicine	5
20.	Questions related to mandatory CPD (Medical ethics, rational use of drugs, infection prevention, BLS/ACLS, communication skills)	10
	<b>Total</b>	<b>200</b>

## 2. MDS (Masters in Dental Surgery):

### A. Eligibility:

- BDS or equivalent
- Registered in respective professional council of applicant's country.
- One year experience for Nepalese candidates.
- Candidate should score minimum of 50% (Pass Marks) in the Entrance Examinations conducted by Medical Education Commission for being eligible to be in the merit list.

### B. Exam Format:

- Single best response type with Multiple choice questions
- Four options (A, B, C, D)
- No. of questions - 200
- Recall:Understanding:Application – 30:50:20
- Duration – (3 hours including one time voluntary toilet break)
  - To be allowed only after an hour

### C. Weightage :

S.N.	Subjects	Marks
	<b>Clinical Dental Sciences Subjects</b>	
1.	Oral Medicine and Radiology (10 + 5)	15
2.	Oral and Maxillofacial Surgery	15
3.	Periodontics	15
4.	Conservative Dentistry and Endodontics (7 + 8)	15
5.	Orthodontics and Dentofacial Orthopedics	15
6.	Pedodontics and Preventive Dentistry	15
7.	Prosthodontics and Maxillofacial Prosthetics (Removable Prosthodontics + Fixed Prosthodontics + Maxillofacial Prosthetics) (8+6+1)	15
8.	Public Health Dentistry + Community Medicine & Biostatistics (5 + 5)	10
9.	Oral Pathology and Microbiology	10
10.	Dental Implantology	5
	<b>Basic Medical Science</b>	
11.	Anatomy	5
12.	Physiology	5
13.	Pathology	5
14.	Pharmacology	5
15.	Biochemistry	5
16.	Microbiology	5
17.	Oral Biology	5
18.	Dental Materials	5
19.	Forensic Odontology	5
20.	General Medicine	5
21.	General Surgery	5
22.	Anesthesia	5
23.	NMC CPD Topics (Medical ethics, rational use of drugs, infection prevention, BLS/ACLS, communication skills, medical emergencies in dental practices and practice management in dentistry)	10
	<b>Total</b>	<b>200</b>

### 3. Master of Public Health (MPH)/ Master of Science in Public Health (MSc PH)/MPHN/MHPE/MPH(HPE)/MPH(PHSM):

#### A. Eligibility:

- MBBS, BDS, BPH, BN/BNS/BSc Nursing, BSc MLT/BMLT, BAMS, B Pharmacy, B Optometry, BASLP or equivalent.
- Registered in respective professional council of applicant's country.
- Candidate should score minimum of 50% (Pass Marks) in the Entrance Examinations conducted by Medical Education Commission for being eligible to be in the merit list.

#### B. Exam Format:

- Single best response type with multiple choice questions
- Four options (A, B, C, D)
- No. of questions - 200
- Recall: Understanding: Application – 30:50:20
- Duration – (3 hours including one time voluntary toilet break)

#### C. Weightage :

S.N.	Subjects	Marks
1.	Biostatistics	30
2.	Epidemiology	30
3.	Health promotion and Education	20
4.	Food and nutrition	20
5.	Research methodology	12
6.	Basic medical science	8
7.	Demography and health informatics	8
8.	Public health and primary health	8
9.	Environmental health and occupational health	8
10.	Family health and reproductive health	8
11.	Global health and international health	8
12.	Sociology and anthropology	8
13.	Public health administration and management	8
14.	Health system management	8
15.	Project planning, development, implementation and evaluation	8
16.	Health economics and health financing	8
	<b>Total</b>	<b>200</b>

#### 4. MD Ayurveda (Kayachikitsa)

##### A. Eligibility:

- BAMS or equivalent.
- Registered in respective professional council of applicant's country.
- One year working experience for Nepalese candidates.
- Candidate should score minimum of 50% (Pass Marks) in the Entrance.
- Examinations conducted by Medical Education Commission for being eligible to be in the merit list.

##### B. Exam Format:

- Single best response type with Multiple choice questions
- Four options (A, B, C, D)
- No. of questions - 200
- Recall:Understanding:Application – 30:50:20
- Duration –3 hours including one time voluntary toilet break

##### C. Weightage :

S.N.	Subjects	Marks
	<b>Basic Ayurveda medical sciences</b>	
1.	Maulika Sidhanta (Basic Principle of Ayurveda)	10
2.	Shareera Rachna (Anatomy)	8
3.	Shareera Kriya (Physiology)	8
4.	DravyagunaVigyana (Pharmacology)	10
5.	Rasa Shastra avam Bhaishjaya Kalpana (Pharmacy & Pharmaceutics)	10
6.	Roga Vigyana avamVrikriti Vigyana	8
7.	Swasthavritta (Public Medicine)	6
8.	Agadhatantra avam Vyavahara Ayurveda (Forensic & Jurisprudence)	6
	<b>Clinical subjects</b>	
9.	Kaya chikitsa (General Medicine)	28
10.	Shalyatantra (General Surgery)	28
11.	Shalakyatantra (Eye, ENT)	26
12.	Kaumarbhritya (Padiatrics)	26
13.	Prasutitantra avam Striroga (Obs. & Gyane.)	26
	<b>Total</b>	<b>200</b>



## 5. Master in Nursing/MSc Nursing/Midwifery:

### A. Eligibility:

- BN/BNS/BSc Nursing/BMidwifery (BMid is eligible only for MSc Midwifery program)
- Registered in respective professional council of applicant's country.
- One year experience for Nepalese candidates.
- Candidate should score minimum of 50% (Pass Marks) in the Entrance Examinations conducted by Medical Education Commission for being eligible to be in the merit list

### B. Exam Format:

- Single best response type with Multiple choice question
- Four options (A, B, C, D)
- No. of questions - 200
- Recall: Understanding:Application - 30:50:20
- Duration - 3 hours including one time voluntary toilet break

### C. Weightage :

S.N.	Subjects	Marks
1.	Adult Nursing (Medical Surgical Nursing)	20
2.	Midwifery	20
3.	Pediatric Nursing (Child Health Nursing)	20
4.	Community Health Nursing	20
5.	Psychiatric Nursing (Mental Health Nursing)	20
6.	Nursing research & Biostatistics	20
7.	Integrated Health Science-	
	a. Anatomy	6
	b. Physiology	4
	c. Pharmacology	4
	d. Biochemistry	2
	e. Microbiology	2
	f. Pathology	2
8.	Educational Science	16
9.	Nursing concepts & ethical aspects in Nursing	16
10.	Nursing leadership & Management	16
11.	Social and Behavioral Science	6
12.	Geriatric Nursing	6
	<b>Total</b>	<b>200</b>

## 6. Master in Pharmacy (MPharm):

### A. Eligibility:

- B. Pharm or equivalent.
- Registered in respective professional council of applicant's country.
- Candidate should score minimum of 50% (Pass Marks) in the Entrance Examinations conducted by Medical Education Commission for being eligible to be in the merit list.

### B. Exam Format:

- Single best response type with Multiple choice questions
- Four options (A, B, C, D)
- No. of questions - 200
- Recall:Understanding:Application – 30:50:20
- Duration – 3 hours including one time voluntary toilet break

### C. Weightage :

S.N.	Subjects	Marks
1.	Biopharmaceutics and Pharmacokinetics	20
2.	Industrial Pharmacy	18
3.	Physical Pharmacy	18
4.	Instrumental Analysis	18
5.	Quality Assurance	18
6.	Pharmacology and toxicology	18
7.	Pharmaceutical Jurisprudence	18
8.	Pharmacotherapeutic	18
9.	Clinical Pharmacy	18
10.	Hospital Pharmacy	18
11.	Pharmacy Practice	18
	<b>Total</b>	200

## 7. MSc MIT (Master of Science in Medical Imaging Technology):

### A. Eligibility:

- BSc MIT or equivalent.
- Registered in respective Professional Council of applicant's country.
- Candidate should score minimum of 50% (Pass Marks) in the Entrance Examinations conducted by Medical Education Commission for being eligible to be in the merit list.

### B. Exam Format

- Single best response type with Multiple choice questions
- Four options (A, B, C, D)
- No. of questions - 200
- Recall:Understanding:Application – 30:50:20
- Duration – 3 hours including one time voluntary toilet break

### C. Weightage :

S.N.	Subjects	Marks
1.	Basic Health Science (Anatomy & Physiology )	30
2.	Basic Health Science (Microbiology/Biochemistry/Pathology/Pharmacology)	20
3.	Biostatistics & Research Methodology	20
	<b>Core subject</b>	
4.	Radiographic Technique	20
5.	Fluoroscopic procedures	20
6.	CT procedures	20
7.	MRI procedures	20
	<b>Radiological &amp; Imaging Physics</b>	
8.	General radiography	10
9.	Fluoroscopy	8
10.	CT	8
11.	MRI	8
12.	Ultrasonography	8
13.	Radiation Protection	8
	<b>Total</b>	200

## 8. MSc Clinical/Medical Biochemistry & MSc Clinical/Medical Microbiology:

### A. Eligibility:

- Bachelor degree in related subjects **or** BSc (Medical Lab technology) **or** BMLT **or** BSc (Laboratory Medicine), MBBS/BDS **or** its equivalent.
- Registered in respective professional council of applicant's country.
- Candidate should score minimum of 50% (Pass Marks) in the Entrance. Examinations conducted by Medical Education Commission for being eligible to be in the merit list.

### B. Exam Format:

- Single best response type with Multiple choice questions
- Four options (A, B, C, D)
- No. of questions - 200
- Recall:Understanding:Application – 30:50:20
- Duration – 3 hours including one time voluntary toilet break

### C. Weightage :

S.N.	Subjects	Marks
1.	Biochemistry	50
2.	Microbiology	50
3.	Hematology	20
4.	Histopathology	12
5.	Cytopathology	8
6.	General Pathology	10
7.	Anatomy	14
8.	Physiology	16
9.	Basic Pharmacology	8
10.	Biostatistics & Research Methodology	12
	<b>Total</b>	200

## 9. MSc in Basic Medical Sciences (Anatomy, Physiology, Pharmacology, Biochemistry, Microbiology)

### A. Eligibility:

- Anatomy:** BPT/ BMIT/MBBS/ BDS/ BAMS or equivalent. degree with registration in respective professional councils of applicant's country.
- Physiology:** BPT/ BMIT/ MBBS/ BDS/ BAMS or equivalent degree with registration in respective professional councils of applicant's country.
- Pharmacology:** BPharm/ MBBS/ BDS/ BAMS or equivalent degree with registration in respective professional council of applicant's country.
- Microbiology:** BSc Clinical Microbiology/ BSc MLT/ BSc Laboratory Medicine/MBBS/ BDS/ BAMS or equivalent degree with registration in respective professional council of applicant's country.
- Biochemistry:** BSc Clinical Biochemistry / BSc MLT/BSc Laboratory Medicine/MBBS/ BDS/ BAMS or equivalent degree with registration in respective professional council of applicant's country.
- Candidate should score minimum of 50% (Pass Marks) in the Entrance Examinations conducted by Medical Education Commission for being eligible to be in the merit list.

### B. Exam Format:

- Single best response type with multiple choice questions
- Four options (A, B, C, D)
- No. of questions – 200
- Recall: Understanding:Application – 30:50:20
- Duration – 3 hours including one time voluntary toilet break

### C. Weightage :

S.N.	Subjects	Marks
1.	Anatomy	30
2.	Physiology	30
3.	Pathology	30
4.	Biochemistry	30
5.	Microbiology	30
6.	Pharmacology	30
7.	Biostatistics and Research Methodology	20
	<b>Total</b>	<b>200</b>

## 10. MPhil in Clinical Psychology:

### A. Eligibility:

- MA/MSc degree in psychology **with clinical or counseling psychology** as special focus (papers in psychological assessment, psychopathology/ abnormal psychology, counseling/ psychotherapy).
- Candidate should score minimum of 50% (Pass Marks) in the Entrance Examinations conducted by Medical Education Commission for being eligible to be in the merit list

### B. Exam Format:

- Single best response type with Multiple choice questions
- four options (A, B, C, D)
- No. of questions - 200
- Recall:Understanding:Application – 30:50:20
- Duration – 3 hours including one time voluntary toilet break

### C. Weightage :

S.N.	Subjects	Marks
	<b>General Psychology</b>	
1.	Emotion, motivation, learning	16
2.	Cognitive (sensation, perception, attention, thinking, memory, states of consciousness, thinking, intelligence, language)	16
3.	Developmental psychology (physical, cognitive, and socio-emotional development across lifespan: child, adolescence, adulthood and late adulthood)	16
4.	Social/cross cultural psychology	16
5.	Personality and major psychological theories (psychodynamic, behavioral, humanistic/existential, cognitive etc.)	16
	<b>Research methods in psychology and mental health</b>	
6.	Qualitative (literature, sampling, design/method, analysis), article publishing, research ethics	20
7.	Quantitative (literature, sampling, design/method, analysis), statistics	20
	<b>Clinical</b>	
8.	Biological/physiological psychology	20
9.	Psychological testing/ assessment	20
10.	Psychopathology/ abnormal psychology	20
11.	Counseling & psychotherapy	20
	<b>Total</b>	200

## 11. Masters of Optometry (MOptom):

### A. Eligibility:

- a. Bachelor of Optometry (BOptom) degree or Bachelor of Optometry and Vision Science (BOptom) or Doctor of Optometry (OD) or BSc in Optometry (BSc Optom) or equivalent degree.
- g. Registered in respective Professional Council of applicant's country.
- h. Candidates should score a minimum 50% marks to pass entrance examinations conducted by Medical Education Commission for being eligible to be in the merit list.

### B. Exam Format:

- a. Single best response type with Multiple choice questions
- b. Four options (A, B, C, D)
- c. No. of questions - 200
- d. Recall:Understanding:Application – 30:50:20
- e. Duration – 3 hours

### C. Weightage :

S.N.	Subjects	Marks
1.	Basic Science and Organ Systems	8
2.	Ocular Anatomy and Physiology	16
3.	Physical and geometrical Optics	10
4.	Visual Science	16
5.	Ocular Disease	16
6.	Diagnostic and investigative optometry	20
7.	Ophthalmic and Dispensing Optics	20
8.	Paediatric Optometry and Binocular Vision	20
9.	Contact Lens and ocular prosthesis	20
10.	Low Vision and visual rehabilitation	20
11.	Community optometry	10
12.	Geriatric optometry and vision care	10
13.	Research Methodology and Biostatistics	8
14.	Ethics & Practice Management in Optometry	6
	<b>Total</b>	<b>200</b>

## ANNEX

### List of Registered Postgraduate Medical (Health Professionals) Programs

#### A. MD/MS Programs

##### MD Programs

1. MD Anaesthesiology
2. MD Dermatology
3. MD Internal Medicine
4. MD Obstetrics and Gynaecology
5. MD Ophthalmology
6. MD Pediatrics
7. MD Psychiatry
8. MD Radiodiagnosis
9. MD/(MD Clinical) Biochemistry
10. MD/(MD Clinical) Pharmacology
11. MD/(MD Clinical) Physiology
12. MD Community Medicine
13. MD Forensic Medicine
14. MD/(MD Clinical) Microbiology
15. MD/(MD Clinical) Pathology
16. MD Radiation Oncology
17. MD General Practice & Emergency Medicine

##### MS Programs

1. MS General Surgery
2. MS/(MS Clinical) Anatomy
3. MS Orthopedics and Trauma Surgery
4. MS Otorhinolaryngology and Head, Neck Surgery

#### B. MDS

1. MDS Orthodontics and Dentofacial Orthopedics
2. MDS Orthodontics
3. MDS Periodontology and Oral Implantology
4. MDS Prosthodontics
5. MDS Oral and Maxillofacial Surgery
6. MDS Conservative Dentistry and Endodontics
7. MDS Pedodontics and Preventive Dentistry
8. MDS Oral Medicine and Radiology
9. MDS Public Health Dentistry Oral Pathology

#### C. MD Ayurveda (*Kayachikitsa*)

#### D. MSc/MN Nursing

##### MSc Nursing

1. MSc Nursing (Community Health Nursing)
2. MSc Nursing (Psychiatric Nursing)
3. MSc Nursing (Maternal Health Nursing)
4. MSc Nursing (Child Health Nursing)
5. MSc Nursing (Medical Surgical Nursing)

##### Master of Nursing (MN)

1. MN (Women Health Development)
2. MN (Midwifery)
3. MN ( Adult Nursing )
4. MN (Paediatric Nursing )
5. MN (Psychiatric Nursing)

#### E. MPH Programs

1. MPH (Master of Public Health)
2. MSc in Public Health
3. MPH (Master in Public Health Nutrition.)
4. MHPE (Master in Health Promotion Education)
5. MPH (Health Promotion Education)
6. MPH (Public Health Service Management)

#### F. MSc in Basic Medical Science

1. MSc Anatomy/Human Anatomy
2. MSc Physiology/Human physiology
3. MSc Biochemistry/Human Biochemistry
4. MSc Microbiology/Human Microbiology
5. MSc Pharmacology
6. MSc Clinical/Medical Microbiology
7. MSc Clinical/Medical Biochemistry

#### Other PG Programs

1. Master of Pharmacy/ MSc Pharmacy
2. MSc MIT
3. Master of Optometry (MOptom)
4. MPhil Clinical Psychology

-0-