

SYLLABUS
for
DM/MCh/NBMS-SS Level Common Entrance Examination
2021
(Revised in 2025)

Government of Nepal
Medical Education Commission
Sanothimi, Bhaktapur

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Medical Education Commission

Syllabus for DM/MCh/NBMS-SS Level Entrance Examination 2021 (Revised 2025)

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 were 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 of Medical Sciences was established in 2002 and Patan Academy of Health Sciences in 2008. Since late 90's, along deemed universities, numerous private medical institutions were also established to support teaching learning of various bachelor and postgraduate level medical programs throughout the country.

With the global trends and development in the field of medical education, the institutions in Nepal also felt the need for starting the higher-level specialty courses. DM/MCh/NBMS-SS program in Nepal was started by Kathmandu University in 1999 in Bir Hospital. After establishment of National Academy of Medical Sciences, DM/MCh/NBMS-SS program was taken over by NAMS in 2004 starting with MCh programs. Similarly, Institute of Medicine started DM/MCh/NBMS-SS program 2008 (Starting with MCh Programs) and BP Koirala Institute of Health Sciences started DM/MCh/NBMS-SS program in 2013.

As per National Medical Education Act 2075, Medical Education Commission (MEC) has taken the responsibility to conduct Common Entrance Examination for Bachelor level, Postgraduate level and DM/MCh/NBMS-SS level programs. For conducting the DM/MCh/NBMS-SS common entrance examination, MEC prepared a common syllabus in consultation with experts from various institutions with experience in DM/MCh/NBMS-SS entrance examinations. This syllabus was developed in 2021 with the following objectives:

Objectives

1. To review the DM/MCh/NBMS-SS entrance syllabus effective at various medical institutions
2. To develop a common syllabus of specific academic programs for DM/MCh/NBMS-SS common entrance examination

Process used in the development of the syllabus

1. Institutions conducting DM/MCh/NBMS-SS entrance examinations were officially corresponded to send the ongoing DM/MCh/NBMS-SS programs they were conducting and the syllabus for entrance examination.
2. The syllabus for related disciplines from various institutions was compiled.
3. A team of experts in the related disciplines representing various institutions worked up for the common syllabus with the help of available compiled documents.

4. A consensus was generated to have an entrance test paper of 3 hours duration with 200 multiple choice questions to facilitate content coverage and to match with the existing entrance examination pattern.
5. Multiple choice questions (MCQs) would be of Single Best Response Type (A-Type) with four options with the stem or vignette of the MCQs not exceeding 60 words.

Syllabus of Different DM/MCh/NBMS-SS Program

I. DM (Medical Specialties)/NBMS (Medical Subspecialties)

A. Eligibility

- a. MD Internal Medicine or equivalent - Candidate with MD in Specialty subject (e.g. MD Cardiology, MD Nephrology etc.) will be eligible only in DM program in the respective subject.
- b. Specialty Registration in Nepal Medical Council (or Medical Council of the respective country)

B. Examination Format

- a. Question type: Single best response type of multiple-choice questions
- b. Option: Four options (A, B, C, D)
- c. Number of questions: 200
- d. Full mark: 200 (With 0.25 marks deduction for each wrong response)
- e. Pass mark: 50th percentile
- f. Duration: 3 hours

C. Weightage:

S. No.	Area	Content/Domain	No. of Questions
a	Applied Basic Medical Science Subjects	1. Anatomy 2. Physiology 3. Pharmacology and toxicology 4. Pathology 5. Biochemistry 6. Microbiology	20
b	General Subjects	1. Emergency and critical care 2. Infectious diseases 3. Rheumatology and connective tissue disorders 4. Fluid, electrolyte and acid-base balance, 5. Allergy and clinical immunology 6. Nutrition 7. Preventive medicine 8. Mental health 9. Molecular and genetic diseases 10. Palliative care	60

c	Subspecialty Subjects	1. Cardiology 2. Endocrinology and metabolism 3. Gastroenterology 4. Haematology 5. Hepatology 6. Nephrology 7. Neurology 8. Oncology 9. Pulmonology	90
d	Miscellaneous Subjects	1. Research and biostatistics 2. Medical ethics and good medical practice 3. Medical education 4. Communication skills 5. Medicolegal issues	30
Total			200

II. DM Critical Care Medicine/ NBMS Subspecialty

A. Eligibility

- MD Anesthesiology or equivalent/MD Internal Medicine or equivalent/ MD Critical Care Medicine
- Specialty Registration in Nepal Medical Council (or Medical Council of the respective country)

B. Examination Format

- Question type: Single best response type of multiple-choice questions
- Option: Four options (A, B, C, D)
- Number of questions: 200
- Full mark: 200 (With 0.25 marks deduction for each wrong response)
- Pass mark: 50th percentile
- Duration: 3 hours

C. Weightage

S. No.	Area	Content/Domain	No. of Questions
a	Applied Basic Medical Science Subjects	1. Anatomy 2. Biochemistry 3. Microbiology 4. Pathology 5. Pharmacology and toxicology 6. Physiology	20

b	General Subject	<ol style="list-style-type: none"> 1. Emergency medicine, 2. Infectious diseases, 3. Rheumatology and connective tissue disorders, 4. Fluid, electrolyte and acid-base balance, 5. Allergy and clinical immunology, 6. Nutrition, 7. Preventive medicine, 8. Mental health, 9. Molecular and genetic diseases, 10. Palliative care. 	60
c	Subspecialty Subjects	<ol style="list-style-type: none"> 1. General principles of critical care: <ul style="list-style-type: none"> ○ Airway, ventilation and oxygen therapy ○ Sepsis, shock, ARDS, ventilator associated pneumonia ○ Hospital acquired infections, ○ Transfusion, ○ Drugs, ○ Sedation and analgesia, ○ Peri-operative management, ○ Trauma - polytrauma, spine injury, head injury 2. Critical care under subspecialties of internal medicine: <ul style="list-style-type: none"> ○ Cardiology, ○ Endocrinology, ○ Gastroenterology, ○ Haematology ○ Hepatology, ○ Nephrology, ○ Neurology, ○ Oncology, ○ Pulmonology. 	90
d	Miscellaneous Subjects	<ol style="list-style-type: none"> 1. Research and biostatistics, 2. Medical ethics and good medical practice, 3. Medical education, 4. Communication skills, 5. Medicolegal issues. 	30
Total			200

III. DM Emergency Medicine

A. Eligibility

- a. MD General Practice & Emergency Medicine or equivalent/ MD Emergency Medicine
- b. Specialty Registration in Nepal Medical Council (or Medical Council of the respective country)

B. Examination Format

- a. Question type: Single best response type of multiple-choice questions
- b. Option: Four options (A, B, C, D)
- c. Number of questions: 200
- d. Full mark: 200 (With 0.25 marks deduction for each wrong response)
- e. Pass mark: 50th percentile
- f. Duration: 3 hours

C. Weightage

S. No.	Area	Content/Domain	No. of Questions
a	Applied Basic Medical Science Subjects	1. Anatomy 2. Biochemistry 3. Microbiology 4. Pathology 5. Pharmacology and toxicology 6. Physiology	20
b	General Subjects	1. Anaesthesia, 2. Dermatology, 3. General surgery, 4. Internal medicine, 5. Obstetrics and gynaecology, 6. Ophthalmology, 7. Orthopaedics and trauma, 8. Otorhinolaryngology, 9. Paediatrics, 10. Psychiatry.	60

c	Subspecialty Subjects	<ul style="list-style-type: none"> ○ Pre-hospital care, transport of emergency patient, triage system & evaluation of emergency patient, ○ Acute medical emergencies: (For example - Shock, acute chest pain, acute shortness of breath, seizure, altered sensorium, neurological deficits, acute febrile illnesses, bites and stings, poisoning, drug overdose, alcohol intoxication, ○ Acute surgical emergencies: (For example - Acute abdomen, polytrauma, burns ○ Environmental emergencies (For example- hypothermia, hyperthermia) ○ Basic life support, ATLS, ACLS, ○ Disaster situations and management, ○ Management of epidemics and pandemics 	90
d	Miscellaneous Subjects	<ol style="list-style-type: none"> 1. Research and biostatistics, 2. Medical ethics and good medical practice, 3. Medical education, 4. Communication skills, 5. Medicolegal issues. 	30
Total			200

IV. DM Neonatology

A. Eligibility

- a. MD Pediatrics or equivalent/ MD Neonatology
- b. Specialty registration in Nepal Medical Council (or Medical Council of the respective country)

B. Examination Format

- a. Question type: Single best response type of multiple-choice questions
- b. Option: Four options (A, B, C, D)
- c. Number of questions: 200
- d. Full mark: 200 (With 0.25 marks deduction for each wrong response)
- e. Pass mark: 50th percentile
- f. Duration: 3 hours

C. Weightage

S. No.	Area	Content/Domain	No. of Questions
a	Applied Basic Medical Science Subjects	<ol style="list-style-type: none"> 1. Anatomy, 2. Physiology, 3. Pharmacology and toxicology, 4. Pathology, 5. Biochemistry, 6. Microbiology 	20
b	General Subjects	<ol style="list-style-type: none"> 1. Community paediatrics, 2. Nutrition, 3. Growth and development, 4. National programs, 5. Infectious diseases, 6. Immunization, 7. Emergency paediatrics, 8. Paediatric critical care, 	60
c	Subspecialty Subjects	<ol style="list-style-type: none"> 1. Systemic disorders: Respiratory, cardiovascular, GI & liver, renal, CNS, endocrine, genetics, eye, ENT, haematology, oncology, skin, orthopedics, pediatric, psychiatric and behavioral disorder 2. Neonatology: <ul style="list-style-type: none"> ○ Fetal growth and development and related disorder, ○ Neonatal critical care, ○ Neonatal interventions, procedures and equipment, ○ Neonatal surgery, ○ Neonatal respiratory, cardiovascular, GI and liver, neurology, nephrology, genetics and inborn errors, ○ Metabolic, immunological, infectious & haematology disorders, ○ Birth defects, ○ Feeding & nutrition, 	90
d	Miscellaneous Subjects	<ol style="list-style-type: none"> 1. Research and biostatistics, 2. Medical ethics and good medical practice, 3. Medical education, 4. Communication skills, 5. Medicolegal issues. 	30
Total			200

V. MCh (Surgical Specialties)/NBMS (Surgical Subspecialties)

A. Eligibility

- MS General Surgery or equivalent - Candidate with MS (For example: MS Urology, MS Neurosurgery etc.) shall be eligible only in MCh program in the respective subject.
- Specialty registration in Nepal Medical Council (or Medical Council of the respective country)

B. Examination Format

- Question type: Single best response type of multiple-choice questions
- Option: Four options (A, B, C, D)
- Number of questions: 200
- Full mark: 200 (With 0.25 marks deduction for each wrong response)
- Pass mark: 50th percentile
- Duration: 3 hours

C. Weightage

S. No.	Area	Content/Domain	No. of Questions
a	Applied Basic Medical Science Subjects	1. Anatomy, 2. Biochemistry, 3. Microbiology, 4. Pathology, 5. Pharmacology and toxicology, 6. Physiology.	20
b	General Subjects	1. General surgical principles: ○ Fluid, electrolyte and acid-base balance ○ Wound, sepsis, ○ Shock, systemic response to injuries, ○ Trauma, ○ Surgical emergencies, ○ Pre and post operative management, ○ Pain management ○ Transfusion 2. Applied surgical anatomy, 3. Genetics and embryology, 4. Nutrition, 5. Palliative care.	60
c	Subspecialty Subjects	1. Urology, 2. Neurosurgery, 3. Cardiothoracic and vascular surgery, 4. Plastic surgery, 5. GI surgery, 6. Pediatric surgery.	90

d	Miscellaneous Subjects	1. Research and biostatistics, 2. Medical ethics and good medical practice, 3. Medical education, 4. Communication skills, 5. Medicolegal issues.	30
Total			200

VI. NBMS Surgical Subspecialties: Gynae-Oncology

A. Eligibility

- MD Gynecology and Obstetrics or equivalent will be eligible only for NBMS Gynae-Oncology Subspecialty.
- Specialty Registration in Nepal Medical Council

B. Examination Format

- Question type: Single best response type of multiple-choice questions
- Option: Four options (A, B, C, D)
- Number of questions: 200
- Full mark: 200 (With 0.25 marks deduction for each wrong response)
- Pass mark: 50th percentile
- Duration: 3 hours

C. Weightage

S. No.	Area	Content/Domain	No. of Questions
a	Applied Basic Medical Science Subjects	1. Anatomy, 2. Biochemistry, 3. Microbiology, 4. Pathology, 5. Pharmacology and toxicology, 6. Physiology.	20

b	General Subjects	<ol style="list-style-type: none"> 1. Anatomy, physiology, embryology of pelvic and gynae organs 2. Applied Surgical Anatomy of Pelvic Organs 3. Screening of premalignant and Malignant lesions 4. Cytopathology and diagnostic procedures of cervical and ovarian lesions 5. Common gynecological surgical procedures 6. Genetics and embryology 7. Pain management 8. Palliative care 9. Fluid, electrolyte and acid base balance 10. Wound sepsis 11. Shock, systemic response to injuries, trauma 12. Surgical emergencies 13. Pre and postoperative management 14. Transfusion 15. Nutrition 	60
c	Subspecialty Subjects	<ol style="list-style-type: none"> 1. Urology 2. Vascular surgery 3. Plastic surgery 4. GI surgery 5. Radiation surgery 6. Medical oncology 7. Surgical oncology 8. Preventive oncology 	90
d	Miscellaneous Subjects	<ol style="list-style-type: none"> 1. Research and biostatistics, 2. Medical ethics and good medical practice, 3. Medical education, 4. Communication skills, 5. Medicolegal issues. 	30
Total			200

Annex

DM (Medical Specialties) / NBMS (Subspecialty) Programs:

DM (Cardiology)
DM (Endocrinology)
DM (Hepatology)
DM (Medical Gastroenterology)
DM (Nephrology)
DM (Neurology)
DM (Pulmonology)
DM (Medical Oncology)

DM (Critical Care Medicine)

DM (Emergency Medicine)

DM (Neonatology)

MCh Programs/NBMS (Subspecialty) Programs:

MCh (CTVS)
MCh (GI Surgery)
MCh (Neuro surgery)
MCh (Pediatric Surgery)
MCh (Plastic Surgery)
MCh (Urology)
NBMS Surgical Subspecialty: Gynae-oncology

Note: The List is not exclusive. The number of programs is subjected to change as per demand and accreditation.