

THE Sustainability Impact Rankings 2027 | Criterion 17.4.2

17.4.2 | Dedicated Courses Addressing Sustainability and the SDGs

1. Policy / SOP for SDG Awareness and Activities

2. Incorporating SDGs into the Academic Curriculum: List of Courses Mapped with SDGs

The following table reproduces the programme-wise course and subject mapping. It records the programme, the course/subject/paper and the SDGs mapped to the corresponding curricular area.

No.	Programme	Course / Subject / Paper	Mapped SDGs
1	Phase I – First Professional MBBS	Anatomy	SDG 3; SDG 4; SDG 9
2	Phase I – First Professional MBBS	Physiology	SDG 3; SDG 4; SDG 13
3	Phase I – First Professional MBBS	Biochemistry	SDG 2; SDG 3; SDG 4; SDG 12
4	Phase I – First Professional MBBS	Introduction to Community Medicine	SDG 1; SDG 2; SDG 3; SDG 4; SDG 5; SDG 6; SDG 10; SDG 11; SDG 13; SDG 17
5	Phase I – First Professional MBBS	Foundation Course	SDG 3; SDG 4; SDG 5; SDG 6; SDG 10; SDG 12; SDG 16; SDG 17
6	Phase I – First Professional MBBS	AETCOM	SDG 3; SDG 4; SDG 5; SDG 10; SDG 16; SDG 17
7	Phase I – First Professional MBBS	Early Clinical Exposure (ECE)	SDG 3; SDG 4; SDG 10; SDG 16
8	Phase II – Second Professional MBBS	Pathology	SDG 3; SDG 4; SDG 9
9	Phase II – Second Professional MBBS	Microbiology	SDG 3; SDG 6; SDG 12; SDG 13
10	Phase II – Second Professional MBBS	Pharmacology	SDG 3; SDG 9; SDG 10; SDG 12
11	Phase II – Second Professional MBBS	Forensic Medicine & Toxicology	SDG 3; SDG 5; SDG 8; SDG 10; SDG 12; SDG 16
12	Phase II – Second Professional MBBS	Introduction to Clinical Subjects	SDG 3; SDG 4; SDG 10; SDG 16
13	Phase II – Second Professional MBBS	AETCOM and Clinical Postings	SDG 3; SDG 4; SDG 5; SDG 10; SDG 16; SDG 17
14	Phase III Part I – Third Professional MBBS	Community Medicine	SDG 1; SDG 2; SDG 3; SDG 4; SDG 5; SDG 6; SDG 8; SDG 10; SDG 11; SDG 12; SDG 13; SDG 16; SDG 17
15	Phase III Part I – Third Professional MBBS	General Medicine	SDG 3; SDG 4; SDG 10; SDG 16

No.	Programme	Course / Subject / Paper	Mapped SDGs
16	Phase III Part I – Third Professional MBBS	Respiratory Medicine	SDG 3; SDG 7; SDG 11; SDG 13
17	Phase III Part I – Third Professional MBBS	Paediatrics	SDG 2; SDG 3; SDG 4; SDG 5; SDG 6; SDG 10
18	Phase III Part I – Third Professional MBBS	Obstetrics & Gynaecology	SDG 3; SDG 4; SDG 5; SDG 10; SDG 16
19	Phase III Part I – Third Professional MBBS	Psychiatry	SDG 3; SDG 4; SDG 5; SDG 10; SDG 16
20	Phase III Part I – Third Professional MBBS	Dermatology, Venereology & Leprosy	SDG 3; SDG 5; SDG 10
21	Phase III Part I – Third Professional MBBS	Physical Medicine & Rehabilitation	SDG 3; SDG 4; SDG 8; SDG 10; SDG 11
22	Phase III Part I – Third Professional MBBS	Ophthalmology	SDG 3; SDG 4; SDG 10
23	Phase III Part I – Third Professional MBBS	ENT	SDG 3; SDG 4; SDG 10
24	Phase III Part I – Third Professional MBBS	Surgery	SDG 3; SDG 9; SDG 12
25	Phase III Part I – Third Professional MBBS	Orthopaedics	SDG 3; SDG 10; SDG 11
26	Phase III Part I – Third Professional MBBS	Electives	SDG 3; SDG 4; SDG 5; SDG 10; SDG 13; SDG 17
27	Phase III Part II – Final Professional MBBS	General Medicine and allied specialties	SDG 3; SDG 4; SDG 10; SDG 16
28	Phase III Part II – Final Professional MBBS	General Surgery and allied specialties	SDG 3; SDG 9; SDG 10; SDG 12
29	Phase III Part II – Final Professional MBBS	Paediatrics	SDG 2; SDG 3; SDG 4; SDG 5; SDG 10
30	Phase III Part II – Final Professional MBBS	Obstetrics & Gynaecology	SDG 3; SDG 4; SDG 5; SDG 10; SDG 16

No.	Programme	Course / Subject / Paper	Mapped SDGs
31	Phase III Part II – Final Professional MBBS	Community Medicine	SDG 1; SDG 2; SDG 3; SDG 4; SDG 5; SDG 6; SDG 10; SDG 11; SDG 13; SDG 16; SDG 17
32	Phase III Part II – Final Professional MBBS	Ophthalmology and ENT	SDG 3; SDG 4; SDG 10
33	Phase III Part II – Final Professional MBBS	Emergency and critical care-related training	SDG 3; SDG 4; SDG 10; SDG 17
34	First BDS	General Human Anatomy including Embryology and Histology	SDG 3; SDG 4
35	First BDS	General Human Physiology and Biochemistry, Nutrition and Diet	SDG 2; SDG 3; SDG 4
36	First BDS	Dental Anatomy, Embryology and Oral Histology	SDG 3; SDG 4
37	First BDS	Dental Materials	SDG 3; SDG 9; SDG 12
38	First BDS	Pre-clinical Prosthodontics and Crown & Bridge	SDG 3; SDG 9
39	Second BDS	General Pathology and Microbiology	SDG 3; SDG 6; SDG 12
40	Second BDS	General and Dental Pharmacology and Therapeutics	SDG 3; SDG 9; SDG 12
41	Second BDS	Dental Materials	SDG 3; SDG 9; SDG 12
42	Second BDS	Pre-clinical Conservative Dentistry	SDG 3; SDG 6; SDG 12
43	Second BDS	Pre-clinical Prosthodontics	SDG 3; SDG 9
44	Second BDS	Oral Pathology and Oral Microbiology	SDG 3; SDG 6; SDG 12
45	Third BDS	General Medicine	SDG 3; SDG 4; SDG 10
46	Third BDS	General Surgery	SDG 3; SDG 9; SDG 12
47	Third BDS	Public Health Dentistry	SDG 1; SDG 2; SDG 3; SDG 4; SDG 6; SDG 10; SDG 11; SDG 16; SDG 17
48	Third BDS	Periodontology	SDG 3; SDG 4
49	Third BDS	Orthodontics & Dentofacial Orthopaedics	SDG 3; SDG 4; SDG 10
50	Third BDS	Oral Medicine & Radiology	SDG 3; SDG 4; SDG 9; SDG 12
51	Third BDS	Oral & Maxillofacial Surgery	SDG 3; SDG 9; SDG 12
52	Third BDS	Conservative Dentistry and Endodontics	SDG 3; SDG 6; SDG 12
53	Third BDS	Prosthodontics and Crown & Bridge	SDG 3; SDG 9; SDG 12
54	Third BDS	Paediatric & Preventive Dentistry	SDG 2; SDG 3; SDG 4; SDG 10

No.	Programme	Course / Subject / Paper	Mapped SDGs
55	Fourth (Final) BDS	Public Health Dentistry	SDG 1; SDG 2; SDG 3; SDG 4; SDG 6; SDG 10; SDG 11; SDG 16; SDG 17
56	Fourth (Final) BDS	Periodontology	SDG 3; SDG 4
57	Fourth (Final) BDS	Orthodontics & Dentofacial Orthopedics	SDG 3; SDG 4; SDG 10
58	Fourth (Final) BDS	Oral Medicine & Radiology	SDG 3; SDG 4; SDG 9; SDG 12
59	Fourth (Final) BDS	Oral & Maxillofacial Surgery	SDG 3; SDG 9; SDG 12
60	Fourth (Final) BDS	Conservative Dentistry & Endodontics	SDG 3; SDG 6; SDG 12
61	Fourth (Final) BDS	Prosthodontics and Crown & Bridge	SDG 3; SDG 9; SDG 12
62	Fourth (Final) BDS	Paediatric & Preventive Dentistry	SDG 2; SDG 3; SDG 4; SDG 10
63	Compulsory Rotating Internship	Community-based oral health education, epidemiological surveys, school dental health programmes, preventive procedures and primary healthcare linkages	SDG 3; SDG 4; SDG 6; SDG 10; SDG 11; SDG 17
64	MD Community Medicine	Nutrition, Environmental Health, Primary Health Care System, National Health Programmes, RCH, Demography and Family Welfare	SDG 2; SDG 3; SDG 5; SDG 6; SDG 10; SDG 11; SDG 13
65	MD Community Medicine	Social & Behavioural Sciences; Sociology and Social Factors Affecting Health	SDG 1; SDG 3; SDG 5; SDG 10; SDG 16
66	MD Community Medicine	Health Policy, Planning, Occupational Health and Health Economics	SDG 3; SDG 8; SDG 10; SDG 16; SDG 17
67	MD Biochemistry	Environmental Biochemistry and Effects of Environmental Pollutants on the Body	SDG 3; SDG 6; SDG 12; SDG 13
68	MD Biochemistry	Biomedical Waste Disposal; Sterilization and Disinfection; Bioethics	SDG 3; SDG 6; SDG 12; SDG 16
69	MD Microbiology	Bacteriology of Water, Air and Milk	SDG 3; SDG 6; SDG 11
70	MD Microbiology	Biomedical Waste Disposal; Sterilization and Disinfection; Hospital-acquired Infections; Hand Hygiene	SDG 3; SDG 6; SDG 12
71	MD Forensic Medicine	Clinical Forensic Medicine and Medical Jurisprudence	SDG 5; SDG 16
72	MD Paediatrics	Neonatology and Community Paediatrics	SDG 2; SDG 3; SDG 5; SDG 10

No.	Programme	Course / Subject / Paper	Mapped SDGs
73	MD Paediatrics	General Paediatrics: Nutrition, Growth and Development, Immunization, Adolescent Health and Disabilities	SDG 2; SDG 3; SDG 5; SDG 10
74	MD Anaesthesiology	Intensive Care Medicine, Pain Medicine and Recent Advances	SDG 3
75	MD Anaesthesiology	Environmental Health Hazards, Radiation Exposure and Exposure to Inhalation Agents in OT	SDG 3; SDG 8; SDG 12; SDG 13
76	MD General Medicine	Medicine and Allied Specialties including Paediatrics, Dermatology and Psychiatry	SDG 3
77	MD Pathology	Biomedical Waste Disposal; Bioethics; Sterilization and Disinfection; Research Ethics	SDG 3; SDG 6; SDG 12; SDG 16
78	DM Neurology	Clinical Neurology including Paediatric Neurology	SDG 3; SDG 10
79	DM Nephrology	Clinical Nephrology including Paediatric Nephrology	SDG 3
80	DM Cardiology	Clinical and Therapeutic Cardiology; Diagnostic, Preventive and Interventional Cardiology	SDG 3
81	M.Ch. Neurosurgery	Clinical Neurosurgery; Practice of Neurosurgery of Skull Base and Spine	SDG 3; SDG 10
82	B.Sc. Nursing	Community Health Nursing	SDG 3; SDG 5; SDG 10
83	B.Sc. Nursing	Child Health Nursing	SDG 2; SDG 3; SDG 5; SDG 10
84	B.Sc. Nursing	Obstetrical and Gynaecological Nursing	SDG 3; SDG 5
85	B.Sc. Nursing	Mental Health Nursing	SDG 3; SDG 10
86	B.Sc. Nursing	Nursing Management and Nursing Research & Statistics	SDG 3; SDG 4; SDG 8; SDG 9; SDG 16; SDG 17
87	Hospital Administration	General Administration and Management of Hospital	SDG 3; SDG 8; SDG 9; SDG 12; SDG 16
88	Hospital Administration	Hospital Administration and Planning	SDG 3; SDG 8; SDG 9; SDG 11; SDG 12
89	Hospital Administration	Administration of Clinical and Non-Clinical Services	SDG 3; SDG 8; SDG 12; SDG 16
90	B.Sc. Hospital & Health Information Administration	Fundamentals of Informatics and Health Information Management	SDG 3; SDG 9; SDG 16; SDG 17
91	B.Sc. Hospital & Health Information Administration	Telemedicine	SDG 3; SDG 9; SDG 10

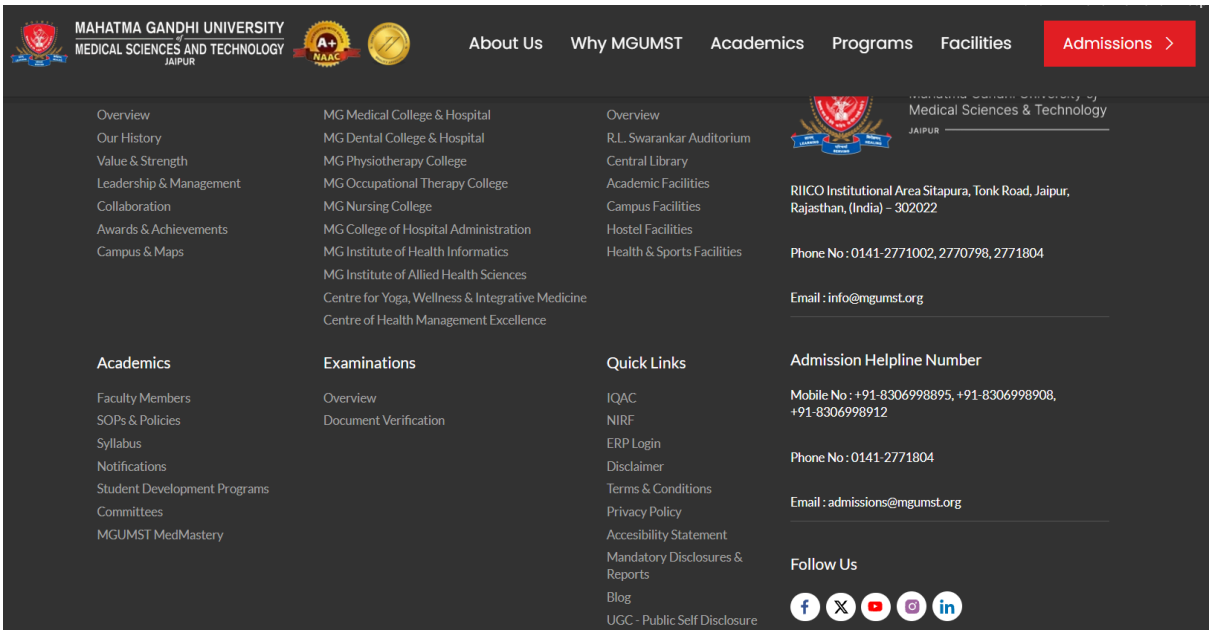
No.	Programme	Course / Subject / Paper	Mapped SDGs
92	B.Sc. Hospital & Health Information Administration	Healthcare Policies & Standards; Quality Assurance	SDG 3; SDG 8; SDG 16; SDG 17
93	B.Sc. Hospital & Health Information Administration	CPA & Health Insurance; Healthcare Financing	SDG 1; SDG 3; SDG 8; SDG 10
94	BOT	Fundamentals of Occupational Therapy	SDG 3; SDG 10
95	BOT	Occupational Therapy in Orthopaedics, Psychiatry, Paediatrics and Neurology	SDG 3; SDG 10
96	BOT	Disability Laws and Discrimination; Professional Standards and Legal Responsibilities	SDG 10; SDG 16
97	Clinical Nutrition & Dietetics	Community Nutrition / Public Health & Community Nutrition	SDG 2; SDG 3; SDG 5; SDG 10
98	Clinical Nutrition & Dietetics	Human Nutrition; Therapeutic Nutrition; Nutritional Biochemistry	SDG 2; SDG 3
99	Clinical Nutrition & Dietetics	Institutional Food Administration	SDG 2; SDG 3; SDG 12
100	M.Sc. Clinical Psychology	Clinical Psychology; Psychological Assessment and Intervention	SDG 3; SDG 10
101	M.Sc. Yoga Therapy / B.Sc. Yoga Therapy	Yoga Therapy	SDG 3
102	BPT / MPT	Physiotherapy; Rehabilitation; Community-Based Rehabilitation	SDG 3; SDG 10
103	BDS / MDS	Preventive and Community Dentistry; Public Health Dentistry	SDG 3; SDG 10
104	M.Sc. Medical Laboratory Technology / B.Sc. MLT	Medical Laboratory Technology; Laboratory Safety and Quality Assurance	SDG 3; SDG 6; SDG 9; SDG 12
105	B.Sc. Radio Imaging / M.Sc. Radio Imaging	Radio Imaging; Radiation Safety	SDG 3; SDG 8; SDG 9; SDG 12
106	M.Sc. Clinical Embryology / B.Sc. Clinical Embryology	Clinical Embryology; Reproductive Biology	SDG 3; SDG 5; SDG 9
107	PhD programmes	Research Methodology; Biostatistics; Research Ethics	SDG 3; SDG 4; SDG 9; SDG 16; SDG 17

3. Links to the Regulations and Curriculm

MGUMST NAAC Criterion 1.3.1 – List of Courses with Description
https://www.mgumst.org/Uploads/moduleimg/95imguf_1.3.1_List_of_Courses_with_description.pdf

MGUMST Official Syllabus Repository
https://www.mgumst.org/academics/syllabus

MGUMST NAAC – Curricular Aspects
https://www.mgumst.org/naac



MGUMST Website screenshot with Quick links provided for all the above mentioned information

4. Report on a Course Aligned with SDGs

Particulars	**Details**
Course Name	Community Medicine
Programme	Bachelor of Medicine and Bachelor of Surgery (MBBS)
Academic Level	Undergraduate

Course Description-

The Community Medicine course in the MBBS programme prepares undergraduate medical students to function as community-oriented and first-level physicians. The course develops knowledge and practical skills in public health, disease prevention, health promotion, epidemiology, primary healthcare, national health programmes, community diagnosis and healthcare delivery.

As stated in the syllabus, students are expected to understand health and disease in the context of individuals, families and communities; identify health needs and environmental and occupational

hazards; apply epidemiological and biostatistical methods; address maternal and child health and nutritional problems; and participate in health education, community-based services and implementation of national health programmes.

The course also addresses the social, cultural, economic and environmental determinants of health. Its learning outcomes therefore provide relevant academic links with selected Sustainable Development Goals (SDGs), particularly those relating to health, nutrition, education, gender, water and sanitation, decent work, reduced inequalities, sustainable communities, climate-related health risks, strong institutions and partnerships.

4.1 SDGs Addressed Through the Course

SDG	Relevant syllabus content	Contribution to the SDG
SDG 2 – Zero Hunger	Nutrition, nutritional assessment, nutrition-related disorders, nutritional surveillance, nutrition education, National Nutrition Policy and ICDS.	Develops the ability to identify and manage nutritional problems and support nutrition-related interventions for individuals, families and communities.
SDG 3 – Good Health and Well-being	Public health, health promotion, prevention, epidemiology, communicable and non-communicable diseases, primary healthcare, RCH, immunisation, mental health, geriatric care and national health programmes.	Builds competencies for disease prevention, health promotion, early identification and management of health problems, and community-oriented healthcare.
SDG 4 – Quality Education	Health education, IEC, behavioural change communication, health-worker training, research methods, biostatistics and health information.	Develops the ability to communicate health information, educate communities and health workers, and apply research and evidence in healthcare.
SDG 5 – Gender Equality	Reproductive, maternal, newborn and child health; family welfare; family planning; adolescent health; gender issues and women empowerment.	Addresses health needs and gender-related issues affecting women, mothers, adolescents and families.
SDG 6 – Clean Water and Sanitation	Safe and wholesome water, water purification, water quality, water conservation, rainwater harvesting, sanitation, sewage and solid-waste disposal.	Builds understanding of safe water, sanitation and environmental measures that protect community health.
SDG 8 – Decent Work and Economic Growth	Occupational health, workplace hazards, occupational diseases, ergonomics and Employees' State Insurance Scheme.	Develops awareness of occupational risks and preventive measures for workers and health professionals.
SDG 10 – Reduced Inequalities	Socio-cultural and socioeconomic assessment, poverty and social security, disability and rehabilitation, primary healthcare and community health services.	Encourages identification of social and economic barriers to health and consideration of vulnerable groups in healthcare planning and delivery.

SDG	Relevant syllabus content	Contribution to the SDG
SDG 11 – Sustainable Cities and Communities	Environmental health, housing standards, air and water pollution, solid waste, sanitation, disaster management and community health services.	Connects environmental and community health topics with healthier living conditions and preparedness for disasters.
SDG 13 – Climate Action	Environmental and occupational hazards, air pollution, environmental health concerns and disaster management.	The link is limited to environmental hazards and their health effects; the supplied syllabus material does not show a dedicated climate-change competency.
SDG 16 – Peace, Justice and Strong Institutions	National health policies, health planning and administration, public health legislation, health programmes, health information systems and disaster-management authorities.	Develops understanding of public health governance, legal responsibilities, planning and institutional systems.
SDG 17 – Partnerships for the Goals	Healthcare-team interaction, organisation of health services, implementation of national programmes, training of health workers and international health agencies.	Supports coordinated action among healthcare professionals, health services, public institutions and communities.

4.2 Syllabus and Competency Areas

The competency areas below are summarised from the syllabus pages and retain the competency numbering visible in the source syllabus.

No.	Syllabus topic / competency area	Competency numbers	Relevant SDGs
1	Concept of Health and Disease	CM1.1–CM1.10; CM2.1–CM2.5	SDG 3; SDG 4; SDG 10
2	Environmental Health	CM3.1–CM3.8	SDG 3; SDG 6; SDG 11; SDG 13
3	Health Education and Health Promotion	CM4.1–CM4.3	SDG 3; SDG 4
4	Nutrition	CM5.1–CM5.8	SDG 2; SDG 3
5	Research Methodology and Biostatistics	CM6.1–CM6.4	SDG 3; SDG 4; SDG 17
6	Epidemiology	CM7.1–CM7.9	SDG 3; SDG 4
7	Epidemiology of Communicable and Non-Communicable Diseases	CM8.1–CM8.6	SDG 3
8	Demography and Vital Statistics	CM9.1–CM9.7	SDG 3; SDG 5; SDG 10
9	Reproductive, Maternal and Child Health	CM10.1–CM10.9	SDG 3; SDG 5
10	Occupational Health	CM11.1–CM11.5	SDG 3; SDG 8
11	Geriatric Services	CM12.1–CM12.4	SDG 3

No.	Syllabus topic / competency area	Competency numbers	Relevant SDGs
12	Disaster Management	CM13.1–CM13.4	SDG 3; SDG 11; SDG 13; SDG 16
13	Hospital Waste Management	CM14.1–CM14.3	SDG 3; SDG 6; SDG 11
14	Mental Health	CM15.1–CM15.3	SDG 3
15	Health Planning and Management	CM16.1–CM16.4	SDG 3; SDG 16; SDG 17
16	Healthcare of the Community	CM17.1–CM17.5	SDG 3; SDG 10; SDG 16; SDG 17
17	International Health	CM18.1–CM18.3; CM19.1–CM19.3	SDG 3; SDG 17
18	Recent Advances in Community Medicine	CM20.1–CM20.4	SDG 3; SDG 4; SDG 16

4.3 Activities Conducted: Field-Based Learning and Community Exposure

The supplied draft documents Community Medicine students participating in field-based learning and institutional visits at the Rural Health Training Centre and affiliated community healthcare facilities in Jaipur. The photographs show students engaged in an academic discussion/orientation and group visits to the Rural Health Training Centre and community healthcare facilities.



Community Medicine students during field-based learning and visits to the Rural Health Training Centre and affiliated community healthcare facilities, Jaipur.

These activities provide practical exposure to primary healthcare services, community health needs and the functioning of rural and community-level healthcare institutions. They complement classroom

teaching by familiarising students with the delivery of health services beyond the tertiary-care hospital setting.

SDG alignment: SDG 3 – Good Health and Well-being, through exposure to community-oriented and primary healthcare; SDG 4 – Quality Education, through experiential and field-based learning; and SDG 10 – Reduced Inequalities, through attention to healthcare access for rural and underserved populations.

4.4 Syllabus Evidence

The following syllabus extracts are reproduced from the supplied MBBS Community Medicine syllabus. They document the course goal and objectives, competency statements and prescribed course content.

CM13.3	Describe man made disasters in the world and in India
CM13.4	Describe the details of the National Disaster management Authority
	Topic: Hospital waste management
CM14.1	Define and classify hospital waste
CM14.2	Describe various methods of treatment of hospital waste
CM14.3	Describe laws related to hospital waste management
	Topic: Mental Health
CM15.1	Define and describe the concept of mental Health
CM15.2	Describe warning signals of mental health disorder
CM15.3	Describe National Mental Health program
	Topic: Health planning and management
CM16.1	Define and describe the concept of Health planning
CM16.2	Describe planning cycle
CM16.3	Describe Health management techniques
CM16.4	Describe health planning in India and National policies related to health and health planning
	Topic: Health care of the community
CM17.1	Define and describe the concept of health care to community
CM17.2	Describe community diagnosis
CM17.3	Describe primary health care, its components and principles
CM17.4	Describe National policies related to health and health planning and millennium development goals
CM17.5	Describe health care delivery in India
	Topic: International Health
CM18.1	Define and describe the concept of International health
CM18.2	Describe roles of various international health agencies
CM19.1	Define and describe the concept of Essential Medicine List (EML)
CM19.2	Describe roles of essential medicine in primary health care
CM19.3	Describe counterfeit medicine and its prevention
	Topic: Recent advances in Community Medicine
CM20.1	List important public health events of last five years
CM20.2	Describe various issues during outbreaks and their prevention
CM20.3	Describe any event important to Health of the Community
CM20.4	Demonstrate awareness about laws pertaining to practice of medicine such as Clinical establishment Act and Human Organ Transplantation Act and its implications
	Aetcom module
	3.1, 3.4 and 3.5

5. BOOKS:

1. Park's Textbook of Preventive and Social Medicine
2. Textbook of Community Medicine. Preventive and Social Medicine - Sunderlal, Adarsh, Pankaj.
3. Methods in Biostatistics for medical students and research workers - BK Mahajan.
4. J Kishore's National health programs of India - National policies and legislations related to health.

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MBBS Community Medicine syllabus extracts showing the course outline and competency statements (printed syllabus pages 181–185).

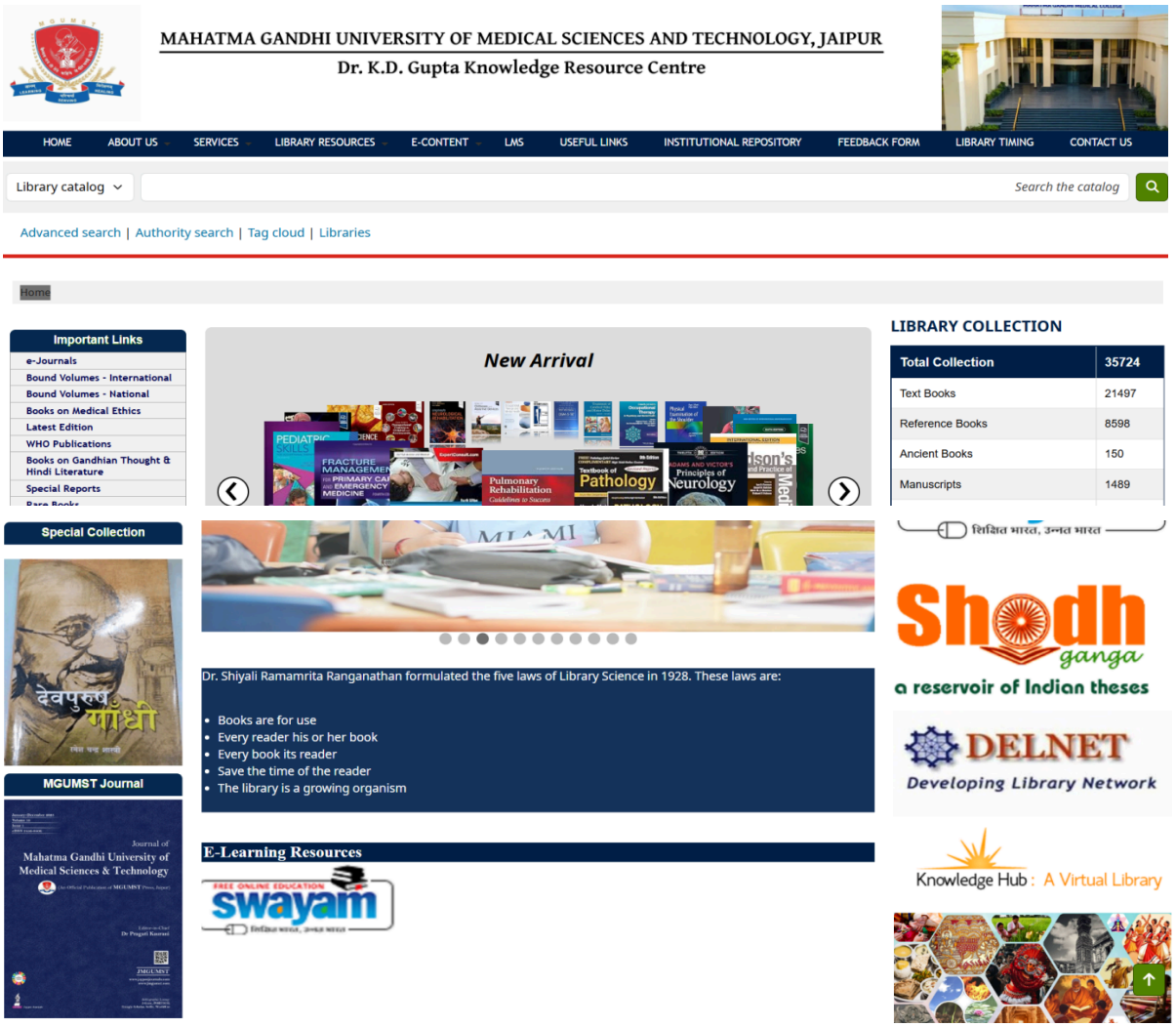
5. Links for the E-Resources Created / Made Accessible

The draft identifies the Dr. K.D. Gupta Knowledge Resource Centre and the university's library and e-resource facilities as sources of academic information accessible to students. The supplied screenshots

show the library portal, e-learning resource section, library collection information, important links, e-library and virtual-library resources.

Central Library / Dr. K.D. Gupta Knowledge Resource Centre:

http://centrallibrary.mgumst.org:7001/





Dr. K.D. Gupta Knowledge Resource Centre portal, library collection information, important links and e-learning resources.