

## PROGRAM OUTCOME (POs)

Course Code	MASTER in PUBLIC HEALTH (MPH)
PO1	<b>Public Health Knowledge and Technology:</b> Apply advanced knowledge of public health systems, epidemiology, health policies, and technologies to improve population health outcomes and streamline public health interventions.
PO2	<b>Critical Thinking and Problem-Solving:</b> Use analytical skills and professional judgment to assess public health issues, make data-driven decisions, and develop effective solutions to improve community health and address public health challenges.
PO3	<b>Healthcare Research Skills:</b> Conduct and analyze public health research to inform evidence-based practices, contribute to innovations in public health policy and management, and improve public health decision-making.
PO4	<b>Professional Ethics and Public Health Practice:</b> Adhere to ethical guidelines in public health practice, ensuring that social justice, equity, and ethical principles guide the design and implementation of health policies and programs.
PO5	<b>Communication Skills:</b> Communicate effectively with diverse populations, healthcare providers, and policymakers to ensure clear information exchange, promote health education, and foster collaboration across public health initiatives.
PO6	<b>Teamwork and Collaboration:</b> Collaborate effectively with interdisciplinary teams to address public health issues, promote community engagement, and implement public health programs, fostering a cooperative work environment.
PO 7	<b>Holistic Development and Leadership:</b> Develop intellectual, emotional, and leadership skills to navigate public health challenges, manage health organizations, and advocate for sustainable and equitable health solutions.
PO8	<b>Lifelong Learning:</b> Cultivate a commitment to continuous learning, staying informed about emerging public health trends, research, and innovations to support ongoing professional development and improve public health practices.

## PROGRAM SPECIFIC OUTCOME (PSO)

PSO 1	Provide in-depth public health knowledge for practical application in various health settings.
PSO 2	Develop critical thinking to analyze and solve public health issues.
PSO 3	Equip students to make informed, evidence-based decisions.
PSO 4	Foster research skills for impactful public health studies and interventions.
PSO 5	Prepare students for leadership and teamwork in multidisciplinary public health sectors.
PSO 6	Strengthen communication skills for effective public health advocacy.
PSO 7	Instill ethical principles for responsible public health practice.
PSO 8	Encourage lifelong learning for continuous professional development.

## COURSE OUTCOMES (COs)

Course Code	MASTER in PUBLIC HEALTH (MPH)
SEMESTER I	
MPH 101 T	<b>Introduction to Human Biology, Public Health, Health Care System in India &amp; Hospital Industry</b>
CO1	To understand human biology and the functions of various body systems.
CO2	To grasp knowledge about key public health issues and environmental health impacts.
CO3	To gain insights into healthcare systems and policies in India and globally.
CO4	To understand the hospital industry's regulations, challenges, and opportunities.
MPH 102 T	<b>Introduction to Epidemiology and Demography</b>
CO1	To apply epidemiological methods, including study designs and screening tests, to understand and analyse public health issues.
CO2	To understand and interpret epidemiological measures and study designs like cohort, case-control, and randomized control trials.
CO3	To analyse demographic data and trends, including fertility, mortality, and migration, and use this information in public health planning and policy development.
MPH 103 T	<b>Introduction to Concepts &amp; Principles of Management and Business Communication</b>
CO1	To gain a solid understanding of management principles, which will help students manage and improve performance in various industries.
CO2	To acquire practical skills in applying management functions (planning, organizing, staffing, directing, and controlling) to improve organizational efficiency.
CO3	To apply key management theories to real-world business challenges and decision-making processes.
CO4	To demonstrate proficiency in business communication, including drafting professional business correspondence and delivering effective presentations.
CC 001 T	<b>Research Methodology &amp; Biostatistics (Core Course)</b>

<b>CO1</b>	Student will be able to understand develop statistical models, research designs with the understating of background theory of various commonly used statistical techniques as well as analysis, interpretation & reporting of results and use of statistical software.
<b>MPH 104 CP</b>	<b>Practice of Public Health (Basic)</b>
<b>CO1</b>	To acquire practical experience in implementing public health programs, improving their skills in health assessments and intervention design.
<b>CO2</b>	To develop a deeper understanding of community health needs and gain proficiency in creating effective public health strategies.
<b>SEMESTER II</b>	
<b>MPH 105 T</b>	<b>Reproductive, Maternal, Child, Adolescent &amp; Geriatric Health</b>
<b>CO1</b>	To gain a comprehensive understanding of reproductive, maternal, and child health services and their effectiveness in India.
<b>CO2</b>	To develop the ability to analyse and address key adolescent health issues, such as teenage pregnancy, mental health, and anaemia.
<b>CO3</b>	To demonstrate proficiency in applying gender-sensitive approaches and promoting social inclusion in public health initiatives.
<b>CO4</b>	To be able to design and evaluate public health interventions that target health disparities among vulnerable groups.
<b>MPH 106 T</b>	<b>Epidemiology of Communicable and Non-Communicable Diseases</b>
<b>CO1</b>	To gain a solid understanding of the epidemiology of communicable and non-communicable diseases and their key determinants.
<b>CO2</b>	Learn to analyze disease transmission dynamics and apply control measures effectively in real-world settings.
<b>CO3</b>	To develop practical skills in surveillance, outbreak investigation, and evaluating immunization programs and adverse events.
<b>CO4</b>	To be able to design and implement strategies to prevent NCDs, recognizing their economic impact and links to communicable disease prevention.
<b>MPH 107 T</b>	<b>Health Planning, Health Management, Health Communication and Health Care</b>
<b>CO1</b>	To gain a thorough understanding of health policy frameworks and the roles of stakeholders in policy-making.
<b>CO2</b>	To develop practical skills in designing, implementing, and evaluating public health programs for disease prevention.
<b>CO3</b>	To apply strategic management tools to enhance public health policy and decision-making processes.
<b>CO4</b>	Assess and integrate innovations in public health, including the use of health technologies and public-private partnerships.
<b>CO5</b>	To be able to critically evaluate the effectiveness of health programs and policies in improving health outcomes across sectors.
<b>MPH 108 T</b>	<b>Health Economics</b>
<b>CO1</b>	To understand basic health economics concepts and their application in healthcare.
<b>CO2</b>	To apply economic principles to analyze demand, supply, and costs in healthcare systems.
<b>CO3</b>	To use economic evaluation tools like CBA and CEA to assess healthcare interventions.
<b>CO4</b>	To grasp the significance of healthcare financing, reforms, and universal health coverage in improving systems.
<b>MPH 109 CP</b>	<b>Practice of Public Health (Advanced)</b>
<b>CO1</b>	To acquire practical experience in implementing public health programs, improving their skills in health assessments and intervention design.
<b>CO2</b>	To develop a deeper understanding of community health needs and gain proficiency in creating effective public health strategies.
<b>SKILL ENHANCEMENT COURSE</b>	
<b>SEC 001 T</b>	<b>Innovation and Entrepreneurship</b>
<b>CO1</b>	Students will grasp the concepts of innovation, its ecosystem, and the role of various stakeholders such as government policies, startups, and innovation hubs.
<b>CO2</b>	Cultivating an entrepreneurial mindset and leadership qualities necessary for driving innovation and leading ventures.
<b>CO3</b>	Understanding the intersection of technology and innovation and leveraging emerging technologies for entrepreneurial ventures.
<b>SEC 002 T</b>	<b>One Health (NPTEL)</b>
<b>CO1</b>	A comprehensive understanding of One Health's role in global health challenges, emphasizing interconnectedness among human, animal, and environmental health.
<b>CO2</b>	Topics include research ethics, disease surveillance, and successes in controlling emerging infectious diseases.
<b>CO3</b>	Students explore disease emergence, transmission, antimicrobial resistance, and food safety, gaining insights into effective public health strategies.



## MGM SCHOOL OF BIOMEDICAL SCIENCES, NAVI MUMBAI

(A constituent unit of MGM INSTITUTE OF HEALTH SCIENCES)

(Deemed University u/s 3 of UGC Act 1956)

Grade “A++” Accredited by NAAC

Sector 1, Kamothe Navi Mumbai-410209, Tel.No.:022-27437631,27432890

Email. sbsnm@mgmuhs.com / Website : www.mgmsbsnm.edu.in

### CO PO Mapping

Programme - Master of Public Health (MPH)

### Semester I and II

<b>PO1</b>	<b>Public Health Knowledge and Technology:</b> Apply advanced knowledge of public health systems, epidemiology, health policies, and technologies to improve population health outcomes and streamline public health interventions.
<b>PO2</b>	<b>Critical Thinking and Problem-Solving:</b> Use analytical skills and professional judgment to assess public health issues, make data-driven decisions, and develop effective solutions to improve community health and address public health challenges.
<b>PO3</b>	<b>Healthcare Research Skills:</b> Conduct and analyze public health research to inform evidence-based practices, contribute to innovations in public health policy and management, and improve public health decision-making.
<b>PO4</b>	<b>Professional Ethics and Public Health Practice:</b> Adhere to ethical guidelines in public health practice, ensuring that social justice, equity, and ethical principles guide the design and implementation of health policies and programs.
<b>PO5</b>	<b>Communication Skills:</b> Communicate effectively with diverse populations, healthcare providers, and policymakers to ensure clear information exchange, promote health education, and foster collaboration across public health initiatives.
<b>PO6</b>	<b>Teamwork and Collaboration:</b> Collaborate effectively with interdisciplinary teams to address public health issues, promote community engagement, and implement public health programs, fostering a cooperative work environment.
<b>PO7</b>	<b>Holistic Development and Leadership:</b> Develop intellectual, emotional, and leadership skills to navigate public health challenges, manage health organizations, and advocate for sustainable and equitable health solutions.
<b>PO8</b>	<b>Lifelong Learning:</b> Cultivate a commitment to continuous learning, staying informed about emerging public health trends, research, and innovations to support ongoing professional development and improve public health practices.

### PO Mapping same with correlation level 3,2,1 The notation of 1 - low, 2 - moderate , 3 - high

Semester	Course / Course Code	Course Outcome	Course Outcome	Public Health Knowledge and Technology	Critical Thinking & problem solving	Healthcare Research Skills	Professional Ethics and Public Health Practice	Communication Skills	Teamwork and Collaboration	Holistic Development and Leadership	Lifelong learning	Average
				PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	
SEMESTER I	Introduction to Human Biology, Public Health, Healthcare System in India & Hospital Industry (MPH 101 T)	CO1	To understand human biology and the functions of various body systems.	3	0	0	0	0	0	0	3	0.8
		C02	To grasp knowledge about key public health issues and environmental health impacts.	3	2	3	2	2	2	2	2	2.3
		C03	To gain insights into healthcare systems and policies in India and globally.	3	2	3	2	2	2	2	3	2.4
		C04	To understand the hospital industry's regulations, challenges, and opportunities.	3	2	2	3	2	2	2	3	2.4
		Average		3	1.5	2	1.75	1.5	1.5	1.5	2.75	2.1
	Introduction to Epidemiology and Demography (MPH 102 T)	CO1	To apply epidemiological methods, including study designs and screening tests, to understand and analyse public health issues.	3	2	2	2	2	2	2	3	2.25
		CO2	To understand and interpret epidemiological measures and study designs like cohort, case-control, and randomized control trials.	3	2	2	2	2	2	2	3	2.25

SEMESTER II		CO3	To analyse demographic data and trends, including fertility, mortality, and migration, and use this information in public health planning and policy development.	3	2	2	2	2	2	2	3	2.25
		Average		3	2	2	2	2	2	2	3	1.9
	<b>Introduction to Concepts &amp; Principles of Management and Business Communication (MPH 103 T)</b>	CO1	To gain a solid understanding of management principles, which will help students manage and improve performance in various industries.	3	2	1	1	1	1	1	2	1.5
		CO2	To acquire practical skills in applying management functions (planning, organizing, staffing, directing, and controlling) to improve organizational efficiency.	3	2	1	1	1	1	1	2	1.5
		CO3	To apply key management theories to real-world business challenges and decision-making processes.	2	1	1	1	1	1	1	2	1.25
		CO4	To demonstrate proficiency in business communication, including drafting professional business correspondence and delivering effective presentations.	2	2	2	3	2	3	2	2	2.25
		Average		2.5	1.75	1.25	1.5	1.25	1.5	1.25	2	2.2
	<b>Research Methodology &amp; Biostatistics (Core Course) (CC 001 T)</b>	CO1	Student will be able to understand develop statistical models, research designs with the understating of background theory of various commonly used statistical techniques as well as analysis, interpretation & reporting of results and use of statistical software.	0	0	3	0	0	0	0	3	0.8
		Average		0	0	3	0	0	0	0	3	0.8
	<b>Practice of Public Health (Basic) (MPH 104 CP)</b>	CO1	To acquire practical experience in implementing public health programs, improving their skills in health assessments and intervention design.	3	3	3	2	3	3	2	3	2.8
		CO2	To develop a deeper understanding of community health needs and gain proficiency in creating effective public health strategies.	3	3	3	2	3	3	2	3	2.8
		Average		3	3	3	2	3	3	2	3	2.0
	<b>Reproductive, Maternal, Child, Adolescent &amp; Geriatric Health (MPH 105 T)</b>	CO1	To gain a comprehensive understanding of reproductive, maternal, and child health services and their effectiveness in India.	3	3	3	2	2	3	2	3	2.6
		CO2	To develop the ability to analyse and address key adolescent health issues, such as teenage pregnancy, mental health, and anaemia.	3	2	2	2	2	2	3	3	2.4
		CO3	To demonstrate proficiency in applying gender-sensitive approaches and promoting social inclusion in public health initiatives.	3	2	2	2	2	2	2	3	2.3
		CO4	To be able to design and evaluate public health interventions that target health disparities among vulnerable groups.	3	2	2	2	2	2	3	3	2.4
		Average		3	2.25	2.25	2	2	2.25	2.5	3	2.4
		CO1	To gain a solid understanding of the epidemiology of communicable and non-communicable diseases and their key determinants.	3	2	3	2	2	2	2	3	2.4

<b>Epidemiology of Communicable and Non-Communicable Diseases (MPH 106 T)</b>	CO2	Learn to analyze disease transmission dynamics and apply control measures effectively in real-world settings.	3	2	2	2	2	3	2	3	2.4
	CO3	To develop practical skills in surveillance, outbreak investigation, and evaluating immunization programs and adverse events.	2	2	2	2	3	2	2	3	2.3
	CO4	To be able to design and implement strategies to prevent NCDs, recognizing their economic impact and links to communicable disease prevention.	3	2	2	2	2	2	2	3	2.3
	Average		2.75	2	2.25	2	2.25	2.25	2	3	2.3
<b>Health Planning, Health Management, Health Communication and Health Care (MPH 107 T)</b>	CO1	To gain a thorough understanding of health policy frameworks and the roles of stakeholders in policy-making.	3	2	3	2	2	2	3	3	2.5
	CO2	To develop practical skills in designing, implementing, and evaluating public health programs for disease prevention.	3	2	3	2	2	2	3	3	2.5
	CO3	To apply strategic management tools to enhance public health policy and decision-making processes.	3	3	3	2	2	3	3	3	2.8
	CO4	Assess and integrate innovations in public health, including the use of health technologies and public-private partnerships.	3	2	2	2	3	2	3	3	2.5
	CO5	To be able to critically evaluate the effectiveness of health programs and policies in improving health outcomes across sectors.	3	2	2	2	2	2	3	3	2.4
	Average		3	2.2	2.6	2	2.2	2.2	3	3	2.5
<b>Health Economics (MPH 108 T)</b>	CO1	To understand basic health economics concepts and their application in healthcare.	3	2	1	1	1	1	1	3	1.6
	CO2	To apply economic principles to analyze demand, supply, and costs in healthcare systems.	3	2	1	1	1	1	1	3	1.6
	CO3	To use economic evaluation tools like CBA and CEA to assess healthcare interventions.	3	2	1	1	1	1	1	3	1.6
	CO4	To grasp the significance of healthcare financing, reforms, and universal health coverage in improving systems.	3	2	1	1	1	1	1	2	1.5
	Average		3.0	2.0	1.0	1.0	1.0	1.0	1.0	2.8	2.0
<b>Practice of Public Health (Advanced) (MPH 109 CP)</b>	CO1	To acquire practical experience in implementing public health programs, improving their skills in health assessments and intervention design.	3	3	3	2	3	3	2	3	2.8
	CO2	To develop a deeper understanding of community health needs and gain proficiency in creating effective public health strategies.	3	3	3	2	3	3	2	3	2.8
	Average		3	3	3	2	3	3	2	3	2.0
<b>SKILL ENHANCEMENT COURSE</b>											
<b>Innovation and Entrepreneurship (SEC 001 T)</b>	CO1	Students will grasp the concepts of innovation, its ecosystem, and the role of various stakeholders such as government policies, startups, and innovation hubs.	3	2	1	1	1	2	2	2	1.8
	CO2	Cultivating an entrepreneurial mindset and leadership qualities necessary for driving innovation and leading ventures.	3	2	1	1	1	2	2	2	1.8
	CO3	Understanding the intersection of technology and innovation and leveraging emerging technologies for entrepreneurial ventures.	3	2	1	1	1	2	2	3	1.9
	Average		3	2	1	1	1	2	2	2.3	2.1
	CO1	A comprehensive understanding of One Health's role in global health challenges, emphasizing interconnectedness among human, animal, and environmental health.	3	3	2	2	1	3	2	2	2.25

	One Health (NPTEL) (SEC 002 T)	CO2	Topics include research ethics, disease surveillance, and successes in controlling emerging infectious diseases.	3	3	2	2	1	3	2	2	2.25
		CO3	Students explore disease emergence, transmission, antimicrobial resistance, and food safety, gaining insights into effective public health strategies.	3	3	2	2	1	3	2	2	2.25
		Average		3	3	2	2	1	3	2	2	1.8