



Department of Commerce

Outcome Based Education (OBE) Framework

Two Year full-time Postgraduate Programme

M.Sc. (Health Economics)

2022 Regulations

1. NATURE AND EXTENT OF THE PROGRAMME

Health Economics has become an essential part of the present healthcare sector. The significance of health economics got its momentum due to the rapid expansion of Health Technology Assessment (HTA) scope for evidence-based policy. Healthcare and its allied services are increasingly adopting health economics applications in comparative analysis of alternative health technologies in terms of cost and outcome for effective and ethical policy decisions. Keeping the growing demand in the health economics domain, the Department of Commerce launched the first of its kind M.Sc. (Health Economics) in 2018. M.Sc. (Health Economics) is a comprehensive postgraduate programme of a two-year duration aiming to develop professionals who aspire to make their presence in the highly promising field of healthcare and its allied sectors. The programme aims to prepare the graduates to apply the skill sets in functional areas of healthcare services for expanding its scope towards evidence-based policy decisions in line with global Health Technology Assessment (HTA) requirement. Our postgraduates are exposed to real-world data to conduct health economics outcome research (HEOR) studies. In addition, they are equipped to develop models and implement them to get meaningful insights on available health interventions/technology as strong evidence needed to report in HTA submissions. Students will be encouraged to be involved in research assignments in seminars, minor projects, and dissertation/industry internships to use the learned skillsets in health policy decisions. A full-time internship for a semester is part of the course structure, wherein the students get hands-on experience in the practical applications of the subject in the industry. Our multidisciplinary programme is designed uniquely to cater to the industries' talent demand in roles like evidence associates, economic modellers, systematic reviewers, health economics and outcome researcher (HEOR), real-world evidence (RWE) expert, pharmacoeconomist, research associates and programme directors. The programme focuses on upskilling non-economist and non-health professionals aspiring to engage in health technology assessment activities of the healthcare sector. The programme also facilitates higher education and academic opportunities in India and abroad.

2. Programme Education Objectives (Peos):

The Learning Outcomes-based Curriculum Framework (LOCF) programme educational objectives for M.Sc. (Health Economics) are as follows.

PEO No	Programme Educational Objectives
PEO 1	Students will be able to use fundamental concepts and technical competence in the health economics domain to achieve professional excellence.
PEO 2	Students will demonstrate expertise in applying economic theories in public health, other interventions/technology, and health outcome research that are patient focused and seek to achieve best value of money and improved patients' health outcomes
PEO 3	Students will demonstrate logical and critical reasoning abilities in the field of health economics, social and ethical impacts of health interventions along with health policy/technology and its role in priority setting to undertake diverse careers in healthcare.
PEO 4	Students will attain a personality that enables them to think independently, argue critically, solve problems, and communicate effectively in a team, reflecting their core competency.
PEO 5	Students will demonstrate academic and professional competencies to undertake research and higher studies for their continuous growth and development and lifelong learning.
PEO 6	Students will be responsible citizens and leaders demonstrating ethical behaviour in their actions in the business or academic organisations and teams.

3. GRADUATE ATTRIBUTES:

S No.	Attribute	Description
1	Disciplinary knowledge	Graduates will have comprehensive knowledge in health economic theories and practices. Possess knowledge of different aspects of health economics with learning various analytical decision-making tools.
2	Problem-solving aptitude	Graduates will possess problem-solving aptitude by generating evidence through real-world data. Graduates will be proficient in economic evaluation, economic modelling, outcome research and health technology assessment.
3	Analytical skills and industry-ready professionals	Graduates will possess analytical abilities to enhance their skills and knowledge of the present scenario in the sphere of health economics.
4	Effective and influencing communication	Graduates will have adequate and influencing communication ability to share thoughts, ideas through written and verbal communication.
5	Leadership readiness/ qualities	Graduates will have the qualities to be efficient leaders, cultivating key characteristics to be visionary leaders who can inspire the team of health professional communities.
6	Critical/reflective thinking and language efficiency	Graduates will have critical/reflective thinking ability to employ innovative ideas to create a sense of awareness of oneself, business, and society.
7	Technologically efficient professional	Graduates will have the capability to apply effective tools and techniques in health economics in a digital society.
8	Ethical awareness	Graduates are responsible and effective global citizens whose personal values and practices align with their roles as responsible members of society with ethical competency.
9	Lifelong learning	Graduates will be lifelong learners and will consistently update themselves with current knowledge, skills, and technologies throughout life.
10	Research-related skills	Graduates will have a sense of enquiry and investigation for raising relevant and contemporary research questions for synthesising and articulating solutions.
11	Teamwork and multicultural learning	Graduates will be capable of building a team, motivating, and inspiring the team members to work with cooperation to their utmost efficiency in a multicultural environment.

4. QUALIFICATION DESCRIPTORS:

- a. Demonstrate a systematic, extensive, and coherent knowledge and understanding of the field of health economics as a whole and its applications and links to related disciplinary areas/subjects of study, including a critical understanding of the established advanced theories, principles, and concepts.
- b. Possess procedural knowledge that creates different types of professionals related to the sectors of health economics, including research and development, academics, and public services.
- c. Possess professional and communication skills in health economics, including a critical understanding of the latest developments and an ability to use established techniques.
- d. Demonstrate comprehensive knowledge about materials, including current research, scholarly, and professional literature, relating to essential and advanced learning areas in health economics to identify problems and solutions.
- e. Demonstrate skills in identifying information needs, collection of relevant quantitative and qualitative data from a wide range of sources, for the analysis and interpretation to formulate strategies and take decisions.
- f. Possess the knowledge of methodologies appropriate to the subject(s) for formulating evidence-based arguments and solutions. Use knowledge, understanding, and skills to critically assess a wide range of ideas, complex problems, and issues relating to health economics.
- g. Address learning needs relating to current and emerging areas of study, using research, development, and professional expertise as appropriate with new frontiers of knowledge.
- h. Incorporate disciplinary knowledge and transferable skills to new/unfamiliar contexts to identify and analyse problems and issues and seek solutions to real-life problems.

5. PROGRAMME OUTCOMES:

After successful completion of M.Sc (Health Economics) programme, students will be able to:

PO No	Attribute	Competency
PO 1	Domain knowledge	Apply the fundamental knowledge of economics in healthcare for effective policy decisions.
PO 2	Problem analysis	Identify, formulate, and analyse economic aspects in handling public health problems leading to substantiated conclusions through real-world evidence, economic evaluation, economic modelling, outcome research, and econometrics.
PO 3	Design/develop solutions	Design solutions for healthcare problems through appropriate strategies by applying the theories and practices of different functional areas of health economics as per HTA requirement.
PO 4	Conduct investigations of complex problems	Use research techniques and micro and macro-economic tools to analyse and interpret health economic data and synthesise the information for health policy decisions through HTA.
PO 5	Modern tool usage	Create, select, and apply appropriate analytical techniques, resources, and information technology tools for better healthcare decisions.
PO 6	Business and society	Apply contextual health economics domain knowledge to assess societal, health, safety, legal, and cultural issues and the consequent responsibilities and societal well-being.
PO 7	Environment and sustainability	Appraise the impact of health economics and outcome research on the environment, demonstrate the knowledge of, and need for sustainable healthcare.
PO 8	Ethics	Apply ethical practices in their personal and professional roles with defined norms to achieve egalitarian philosophy.
PO 9	Individual/teamwork	Function effectively as an individual member or leader in diverse teams and multidisciplinary settings.
PO 10	Communication	Communicate effectively on complex activities and solutions with stakeholders, the healthcare community, and society to comprehend and write effective reports and make effective presentations and visualisations for decision making.
PO 11	Project management and finance	Demonstrate knowledge and understanding of principles of health economics and apply them to evaluate new and existing interventions for effective decision making with due consideration on value based healthcare with standard HTA guidelines.
PO 12	Life-long learning	Engage in independent and life-long learning in the broadest context of technological and policy changes.

M.Sc. (Health Economics) Course Structure from Oct 2022

First Year																	
Bridge Courses						Subject Code	Semester 2				L	T	P	C			
1.	Fundamentals of Economics					MSHE1201	Health Technology Assessment	3	-	-	-	3					
2.	Introduction to public health and community medicine					MSHE1202	Economic Decision Modelling	-	-	-	6	3					
Subject Code	Semester 1					L	T	P	C	MSHE1203	Economic Evidence 2	-	-	4	2		
MSHE1101	Health Economics					3	-	-	3	MSHE1204	Minor Project 1a	-	-	4	2		
MSHE1102	Economic Evaluation					2	1	-	3	Elective (Any Two)							
MSHE1103	Evidence Synthesis					3	-	-	3	MSHE1205	Resource Prioritization in healthcare	3	-	-	3		
MSHE1104	Epidemiology and Biostatistics					2	-	2	3	MSHE1206	Health system and Health policy	3	-	-	3		
MSHE1105	Healthcare Insurance					3	-	-	3	MSHE1207	Global Health Policy & Planning	3	-	-	3		
MSHE1106	Model Building Tools and Techniques					-	-	6	3	MSHE1208	Econometric tools for Healthcare Analysis	3	-	-	3		
MSHE1107	Economic Evidence 1					-	-	4	2	Open Elective (Any One)							
						PGOEC002	Mind fullness and wellbeing				3	-	-	3			
						PGOEC003	Ethical Leadership				3	-	-	3			
						PGOEC004	Creative & Critical Thinking				3	-	-	3			
						Self-Directed Learning (Any one)											
						PMOOC005	Value-Based Care: Population Health and Managing Processes to Improve				-	1	-	1			
						PMOOC006	Foundations of Health Equity Research				-	1	-	1			
						PMOOC007	Using clinical health data for better healthcare				-	1	-	1			
						PMOOC008	Evaluation of Digital Health Interventions				-	1	-	1			
						PMOOC009	Current regulatory requirements for conducting clinical trials in India for investigational new drugs/new drug (Version 3.0)				-	1	-	1			
						PMOOC010	Exploring survey data on health care.				-	1	-	1			
Total						13	1	6	20	Total				12	1	7	20



Subject Code	Semester 3	L	T	P	Credits	Subject Code	Semester 4	T	P	L	Credits
MSHE1301	Healthcare Analytics Using R	-	-	6	3	MSHE1401	Research Dissertation/Semester Abroad/Industry Internship				20
MSHE1302	Health Economics and Outcome Research	3	-	-	3						
MSHE1303	Economic Evidence 3	-	-	6	3						
MSHE1304	Minor Project 1b	-	-	4	2						
	Elective (Any Three)				9						
MSHE1305	Programme and Policy Evaluation	3	-	-	3						
MSHE1306	Econometrics of Panel data	-	-	6	3						
MSHE1307	Healthcare Financing	3	-	-	3						
MSHE1308	Commercial determinants of Health	3	-	-	3						
MSHE1309	Real world evidences and Decision making	3	-	-	3						
Total		12	-	8	20	Total					20