AMENDMENTS
IN CURRICULUM OF SEMESTER III & IV OF MASTER OF PUBLIC HEALTH PROGRAM UNDER REGULATION 2023

For candidates admitted from the academic year 2023-24

FACULTY OF MEDICAL AND HEALTH SCIENCES

SRM Institute of Science and Technology
(Deemed to be University u/s 3 of UGC Act, 1956)
Kattakulathur-603203,
Chengalpattu Dist, Tamil Nadu, India

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY
LEARN · LEAP · LEAD

1. Short Title and Commencement

These regulations shall be called **'MASTER OF PUBLIC HEALTH** regulations 2023 amendment', in short title MPH under SRM Institute of Science and Technology, Kattankulathur, Chengalpattu District, Tamil Nadu. This has been approved by the 55th Academic Council meeting of SRM Institute of Science and Technology held on 25 May 2024. The regulations shall come into force for the candidates admitted from the academic year 2023-2024 onwards.

In the ***Second year*** (third semester), the students will select any one of the specializations offered by the School of Public health. The specializations currently offered are:

- **Health Services Management**
- **Epidemiology and Biostatistics**
- **Advanced Health Economics and Financing**
- **Environmental Health**
- **Health Communication**

The third semester consists of course work in the chosen specialization. Students identify a topic of their interest and make an in-depth study of the topic and submit a dissertation.

In the fourth semester, the students will be attached to relevant organizations for internship for 4 months. The students get involved in day-to-day functioning of the organization and get hands on experience. They prepare a report describing the organisation and their experience and make a presentation. This is followed by a viva voce. An Evaluation Committee of the School consisting of minimum one external and one internal faculty member would evaluate the candidates based on their presentation, internship report and viva voce.

2. List of Courses

Course code	Name of Course	L	T	P	C
	Semester – I				
PH23101T	Introduction to public health	1	1	0	2
PH23102T	Basic Epidemiology	2	2	0	4
PH23103T	Basic Biostatistics	2	2	0	4
PH23104T	Public Health Programs: An overview; Practical on searching information and preparing scientific write ups and making presentations	3	3	0	6
PH23105T	Demography	2	1	0	3
PH23106T	Health systems, health related policies, and laws/ acts, and field visits (SC, PHC, CHC, DH, DHO)	3	2	0	5
VACSPH01	##Fundamentals of Microsoft office	2	0	0	0
	Total Learning Credits				**24**
	Semester - II				
PH23201T	Introduction to health management	2	1	0	3
PH23202T	Introduction to health economics – Cost-effective analysis, cost-benefit analysis, cost-utilization and benefit incidence analysis	2	1	0	3
PH23203T	Introduction to environmental health	2	1	0	3
PH23204T	Introduction to health promotion and health communication	2	1	0	3

PH23205T	Research methodology	2	2	0	4
PH23206P	Practicum - designing and conducting a research study (including data collection in field) and report writing and presentation*	0	0	8	4
PH23207P	Data analysis using statistical software, practicum of data analysis*	0	0	8	4
VACSPH02	##Communication skills	2	0	0	0
	Total Learning Credits				**24**

Semester III					
Common Modules		**L**	**T**	**P**	**C**
PH23301T	Systematic review and meta-analysis*	1	1	0	2
PH23302T	Public health informatics	2	0	0	2
PH23303T	Health promotion	2	0	0	2
PH23304T	Geospatial statistics	1	1	0	2
VACSPH07	##Interview skills and CV writing	1	0	0	0
Specialization: Health Services Management					
PH23305T	Project planning, implementation, monitoring and evaluation (PIME)	3	2	0	5
PH23306T	Management of public health programs	3	2	0	5
Specialization: Epidemiology & Biostatistics					
PH23307T	Epidemiological methods and epidemic management	3	2	0	5
PH23308T	Applied multivariate analysis	3	2	0	5
Specialization: Advanced Health Economics and Financing					
PH23309T	Health economics and healthcare financing	3	2	0	5
PH23310T	Budget analysis and economic evaluation	3	2	0	5
Specialization: Environmental Health					
PH23311T	Environmental health risk assessment	3	2	0	5
PH23312T	Geo-spatial technologies in environmental health	3	2	0	5
Specialization: Health Communication					
PH23313T	Strategic communication and designing health campaigns	3	2	0	5
PH23314T	Media analysis and evaluating health promotion interventions	3	2	0	5
	Total Learning Credits				**20**
Semester IV					
PH23401P	Dissertation*	0	0	10	5
PH23402P	Internship	0	0	30	15
	Total Learning Credits				**20**

Course code ending with T are theory course and course code ending with P are practical course.
*Fully Internal courses. End semester examination shall be conducted by the department and marks shall be submitted to the University.
##Fully internal value-added course and grades not included to compute SGPA & CGPA

3. Semester-wise distribution of marks

Internal assessment	**University Examination**		**Total (IA + 50% weightage of university Examination)**	
50	Min	Max	Min	Max
	25	50	50	100

Course No.	Name of Course	Internal Assessment	University Examination		Total	
			Min	Max	Min	Max
Semester - I						
PH23101T	Introduction to public health	50	25	50	50	100
PH23102T	Basic Epidemiology	50	25	50	50	100
PH23103T	Basic Biostatistics	50	25	50	50	100
PH23104T	Public Health Programs: An overview; Practical on searching information and preparing scientific write ups and making presentations	50	25	50	50	100
PH23105T	Demography	50	25	50	50	100
PH23106T	Health systems, health related policies, and laws/ acts, and field visits (SC, PHC, CHC, DH, DHO)	50	25	50	50	100
VACSPH01	##Fundamentals of Microsoft office	100	-	-	50	100
Semester -II						
PH23201T	Introduction to health management	50	25	50	50	100
PH23202T	Introduction to health economics – Cost-effective analysis, cost-benefit analysis, cost-utilization and benefit incidence analysis	50	25	50	50	100
PH23203T	Introduction to environmental health	50	25	50	50	100
PH23204T	Introduction to health promotion and health communication	50	25	50	50	100
PH23205T	Research methodology	50	25	50	50	100
PH23206P	Practicum - designing and conducting a research study (including data collection in field) and report writing and presentation*	100	-	-	50	100
PH23207P	Data analysis using statistical software, practicum of data analysis*	100	-	-	50	100
VACSPH02	##Communication skills	100	-	-	50	100
Semester -III						
Common Modules						
PH23301T	Systematic review and meta-analysis*	100	-	-	50	100
PH23302T	Public health informatics	50	25	50	50	100
PH23303T	Health promotion	50	25	50	50	100
PH23304T	Geospatial statistics	50	25	50	50	100
VACSPH07	##Interview skills and CV writing	100	-	-	50	100
Specialization: Health Services Management						
PH23305T	Project planning, implementation, monitoring and evaluation (PIME)	50	25	50	50	100
PH23306T	Management of public health programs	50	25	50	50	100
Specialization: Epidemiology & Biostatistics						
PH23307T	Epidemiological methods and epidemic management	50	25	50	50	100
PH23308T	Applied multivariate analysis	50	25	50	50	100

Specialization: Advance Health Economics and Financing						
PH23309T	Health economics and healthcare financing	50	25	50	50	100
PH23310T	Budget analysis and economic evaluation	50	25	50	50	100
Specialization: Environmental Health						
PH23311T	Environmental health risk assessment	50	25	50	50	100
PH23312T	Geo-spatial technologies in environmental health	50	25	50	50	100
Specialization: Health Communication						
PH23313T	Strategic communication and designing health campaigns	50	25	50	50	100
PH23314T	Media analysis and evaluating health promotion interventions	50	25	50	50	100
Semester IV						
PH23401P	Dissertation*	100	-	-	50	100
PH23402P	Internship	50	25	50	50	100

Course code ending with T are theory courses and course code ending with P are practical courses.
*Fully Internal courses. End semester examination shall be conducted by the department and marks shall be submitted to the University.
##Fully internal value-added course and grades not included to compute SGPA & CGPA

ACADEMIC CURRICULA

POSTGRADUATE DEGREE PROGRAMMES

Master of Public Health

Two Years (Full-Time)

Learning Outcome Based Education

Academic year 2023 - 2024

FACULTY OF MEDICINE AND HEALTH SCIENCES

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY
(Deemed to be University u/s 3 of UGC Act, 1956)
Kattankulathur, Chengalpattu District 603203, Tamil Nadu, India

This page is left blank intentionally.

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

Kattankulathur, Kancheepuram District 603203, Tamil Nadu, India

MASTER IN PUBLIC HEALTH

1. Department Vision Statement	
Stmt - 1	***Leadership for equitable, sustainable and holistic health***

2. Department Mission Statement	
Stmt - 1	Create thought leaders and change makers for public health
Stmt - 2	Design appropriate holistic and sustainable programs
Stmt - 3	Converge multi-disciplinary efforts to make a difference
Stmt – 4	Be guided by the values of LEAPS (Leadership, Ethics, Accountability, Perseverance and Sensitivity)

3. Program Education Objectives (PEO)	
PEO - 1	Development in chosen profession and or progress towards an advance degree
PEO - 2	The trust and respect of other public health professionals as effective and ethical members
PEO - 3	A reputation as a source of innovative public health solutions to complex public health issues
PEO - 4	The core competencies will lead to achieve zero harm in any disasters
PEO - 5	To conceptualize design, conduct and analyses public health Research/ data

4. Consistency of PEO's with Mission of the Department

	Mission Stmt. - 1	Mission Stmt. - 2	Mission Stmt. - 3	Mission Stmt. - 4	
PEO - 1	H	H	H	H	
PEO - 2	H	H	H	H	
PEO - 3	H	H	H	H	
PEO - 4	H	H	H	H	
PEO - 5	H	H	H	H	

H – High Correlation, M – Medium Correlation, L – Low Correlation

5. Consistency of PEO's with Program Learning Outcomes (PLO)

	Program Learning Outcomes (PLO)														
	1. Disciplinary Knowledge	2. Critical Thinking	3. Problem Solving	4. Analytical Reasoning	5. Research Skills	6. Team Work	7. Scientific Reasoning	8. Reflective Thinking	9. Self-Directed Learning	10. Multicultural Competence	11. Ethical Reasoning	12. Community Engagement	13. ICT Skills	14. Leadership Skills	15. Life Long Learning
PEO - 1	H	H	M	H	H	H	H	M	L	M	H	H	M	H	M
PEO - 2	H	H	M	H	H	H	H	M	L	M	H	H	M	H	M
PEO - 3	H	H	M	H	H	H	H	M	L	M	H	H	M	H	M
PEO - 4	H	H	M	H	H	H	H	M	L	M	H	H	M	H	M
PEO - 5	H	H	M	H	H	H	H	M	L	M	H	H	M	H	M

H – High Correlation, M – Medium Correlation, L – Low Correlation

6. Programme Structure (86 Total Credits)

1. Professional Core Courses (C)

Code	Course Title	L	T	P	C
PH23101T	Introduction to public health	1	1	0	2
PH23102T	Basic Epidemiology	2	2	0	4
PH23103T	Basic Biostatistics	2	2	0	4
PH23104T	Public Health Programs: An overview; Practical on searching information and preparing scientific write ups and making presentations	3	3	0	6
PH23105T	Demography	2	1	0	3
PH23106T	Health systems, health related policies, and laws/ acts, and field visits (SC, PHC, CHC, DH, DHO)	3	2	0	5
PH23201T	Introduction to health management	2	1	0	3
PH23202T	Introduction to health economics – Cost-effective analysis, cost-benefit analysis, cost-utilization and benefit incidence analysis	2	1	0	3
PH23203T	Introduction to environmental health	2	1	0	3
PH23204T	Introduction to health promotion and health communication	2	1	0	3
PH23205T	Research methodology	2	2	0	4
PH23302T	Public health informatics	2	0	0	2
PH23303T	Health promotion	2	0	0	2

2. Skill Enhancement Courses (S)

Code	Course Title	L	T	P	C
PH23301T	Systematic review and meta-analysis*	1	1	0	2
PH23206P	Data analysis using statistical software, practicum of data analysis*	0	0	8	4
PH23304T	Geospatial statistics	1	1	0	2

3. Professional Elective Courses (PE)

Code	Course Title	L	T	P	C
PH23305T	Project planning, implementation, monitoring and evaluation (PIME)	3	2	0	5
PH23306T	Management of public health programs	3	2	0	5
PH23307T	Epidemiological methods and epidemic management	3	2	0	5
PH23308T	Applied multivariate analysis	3	2	0	5
PH23309T	Health economics and healthcare financing	3	2	0	5
PH23310T	Budget analysis and economic evaluation	3	2	0	5
PH23311T	Environmental health risk assessment	3	2	0	5
PH23312T	Geo-spatial technologies in environmental health	3	2	0	5
PH23313T	Strategic communication and designing health campaigns	3	2	0	5
PH23314T	Media analysis and evaluating health promotion interventions	3	2	0	5

4. Project work / Internship in Industry / Higher Technical Institutions (P)

Code	Course Title	L	T	P	C
PH23205P	Practicum - designing and conducting a research study (including data collection in field) and report writing and presentation*	0	0	8	4
PH23401P	Dissertation*	-	-	10	5
PH23402P	Internship	-	-	30	15

5. Value added courses

Code	Course Title	L	T	P	C
VACSPH01	Fundamentals of Microsoft office#	2	0	0	0
VACSPH02	Communication skills#	2	0	0	0
VACSPH07	Interview skills and CV writing#	1	0	0	0

7. Implementation plan

Semester I					
Course Code	**Name of Course**	**L**	**T**	**P**	**C**
PH23101T	Introduction to public health	1	1	0	2
PH23102T	Basic Epidemiology	2	2	0	4
PH23103T	Basic Biostatistics	2	2	0	4
PH23104T	Public Health Programs: An overview; Practical on searching information and preparing scientific write ups and making presentations	3	3	0	6
PH23105T	Demography	1	2	0	3
PH23106T	Health systems, health related policies, and laws/ acts, and field visits (SC, PHC, CHC, DH, DHO)	1	2	4	5
VACSPH01	Fundamentals of Microsoft office#	2	0	0	0
Total Learning Credits					**24**
Semester II					
PH23201T	Introduction to health management	2	1	0	3
PH23202T	Introduction to health economics – Cost-effective analysis, cost-benefit analysis, cost-utilization and benefit incidence analysis	2	1	0	3
PH23203T	Introduction to environmental health	2	1	0	3
PH23204T	Introduction to health promotion and health communication	2	1	0	3
PH23205T	Research methodology	2	2	0	4
PH23206P	Practicum - designing and conducting a research study (including data collection in field) and report writing and presentation*	0	0	8	4
PH23207P	Data analysis using statistical software, practicum of data analysis*	0	0	8	4
VACSPH02	Communication skills#	2	0	0	0
Total Learning Credits					**24**
Semester III (Common modules)					
PH23301T	Systematic review and meta-analysis*	1	1	0	2
PH23302T	Public health informatics	2	0	0	2
PH23303T	Health promotion	2	0	0	2
PH23304T	Geospatial statistics	1	1	0	2
VACSPH07	Interview skills and CV writing#	1	0	0	0
Semester III (Specializations)					
Specialization - Health Services Management					
PH23305T	Project planning, implementation, monitoring and evaluation (PIME)	3	2	0	5
PH23306T	Management of public health programs	3	2	0	5
Specialization – Epidemiology and Biostatistics					
PH23307T	Epidemiological methods and epidemic management	3	2	0	5
PH23308T	Applied multivariate analysis	3	2	0	5
Specialization - Health Economics and Healthcare Financing					
PH23309T	Health economics and healthcare financing	3	2	0	5
PH23310T	Budget analysis and economic evaluation	3	2	0	5
Specialization – Environmental Health					
PH23311T	Environmental health risk assessment	3	2	0	5
PH23312T	Geo-spatial technologies in environmental health	3	2	0	5
Specialization – Health Communication					
PH23313T	Strategic communication and designing health campaigns	3	2	0	5
PH23314T	Media analysis and evaluating health promotion interventions	3	2	0	5
Total Learning Credits					**18**
Semester IV					
PH23401P	Dissertation*	-	-	10	5
PH23401P	Internship	-	-	30	15
Total Learning Credits					**20**

8. Program Articulation Matrix

Course Code	Course Name	Program Learning Outcomes														
		Disciplinary Knowledge	Critical Thinking	Problem Solving	Analytical Reasoning	Research Skills	Team Work	Scientific Reasoning	Reflective Thinking	Self-Directed Learning	Multicultural Competence	Ethical Reasoning	Community Engagement	ICT Skills	Leadership Skills	Life Long Learning
PH23101T	Introduction to public health	H	M	M	M	M	M	M	M	M	H	M	M	L	M	M
PH23102T	Basic Epidemiology	H	M	M	M	M	M	M	M	H	M	M	M	L	M	L
PH23103T	Basic Biostatistics	H	H	H	H	H	H	H	H	H	H	H	H	M	H	M
PH23104T	Public Health Programs: An overview; Practical on searching information and preparing scientific write ups and making presentations	H	H	H	H	H	H	H	H	M	L	L	L	H	H	M
PH23105T	Demography	H	M	M	M	M	M	M	M	M	H	M	M	L	M	M
PH23106T	Health systems, health related policies, and laws/ acts, and field visits (SC, PHC, CHC, DH, DHO)	H	M	M	M	M	M	M	M	M	H	M	M	L	M	M
PH23201T	Introduction to health management	H	M	M	M	M	M	M	M	M	H	M	M	L	M	M
PH23202T	Introduction to health economics – Cost-effective analysis, cost-benefit analysis, cost-utilization and benefit incidence analysis	H	M	M	M	M	M	M	M	M	H	M	M	L	M	M
PH23203T	Introduction to environmental health	H	M	M	M	M	M	M	M	M	H	M	M	L	M	M
PH23204T	Introduction to health communication and health promotion	H	M	M	M	M	M	M	M	M	H	M	M	L	M	M
PH23205T	Research methodology	H	H	H	H	H	H	H	H	M	L	L	L	H	H	M
PH23206T	Practicum - designing and conducting a research study (including data collection in field) and report writing and presentation*	H	H	H	H	H	H	H	H	M	L	L	L	H	H	M
PH23207P	Data analysis using statistical software, practicum of data analysis*	H	M	M	M	M	M	M	M	M	H	M	M	L	M	M
PH23301T	Systematic review and meta-analysis*	H	M	M	M	M	M	M	M	M	H	M	M	L	M	M
PH23302T	Public health informatics	H	H	H	H	H	H	H	H	M	L	L	L	H	H	M
PH23303T	Health promotion	H	M	M	M	M	M	M	M	M	H	M	M	L	M	M
PH23304T	Geospatial statistics	H	M	M	M	M	M	M	M	M	H	M	M	L	M	M
PH23305T	Project planning, implementation, monitoring and evaluation (PIME)	H	M	M	M	M	M	M	M	M	H	M	M	L	M	M
PH23306T	Management of public health programs	H	M	M	M	M	M	M	M	M	H	M	M	L	M	M
PH23307T	Epidemiological methods and epidemic management	H	M	M	M	M	M	M	M	M	H	M	M	L	M	M
PH23308T	Applied multivariate analysis	H	H	H	H	H	H	H	H	M	L	L	L	H	H	M

PH23309T	Health economics and healthcare financing	H	H	H	H	H	H	H	H	M	L	L	L	H	H	M
PH23310T	Budget analysis and economic evaluation	H	H	H	H	H	H	H	H	M	L	L	L	H	H	M
PH23311T	Environmental health risk assessment	H	H	H	H	H	H	H	H	M	L	L	L	H	H	M
PH23312T	Geo-spatial technologies in environmental health	H	H	H	H	H	H	H	H	M	L	L	L	H	H	M
PH23313T	Strategic communication and designing health campaigns	H	H	H	H	H	H	H	H	M	L	L	L	H	H	M
PH23314T	Media analysis and evaluating health promotion interventions	H	H	H	H	H	H	H	H	M	L	L	L	H	H	M
PH23401P	Dissertation*	H	H	M	M	H	H	M	H	M	L	M	L	M	H	M
PH23402P	Internship	H	H	M	M	H	H	M	H	M	L	M	L	H	H	M

H – High Correlation, M – Medium Correlation, L – Low Correlation

Course Code	PH23301T	Course Name	Systematic review and meta-analysis	Course Category	S	Skill Enhancement	L	T	P	C
							1	1	0	2

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department		School of Public Health	Data Book / Codes/Standards	Nil	

Course Learning Rationale (CLR):	The purpose of learning this course is to:	Learning			Program Learning Outcomes (PLO)														
CLR-1:	Understand methods to perform systematic reviews and meta-analysis of observational studies and clinical trials.	1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CLR-2:	Develop search query and perform literature search in academic databases	Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)	Disciplinary Knowledge	Critical Thinking	Problem Solving	Analytical Reasoning	Research Skills	Teamwork	Scientific Reasoning	Reflective Thinking	Self-Directed Learning	Multicultural Competence	Ethical Reasoning	Community Engagement	ICT Skills	Leadership Skills	Life Long Learning
CLR-3:	formulate an answerable research question and protocol for systematic review																		
CLR-4:	In-depth understanding of risk of bias assessment tool for different study design																		
CLR-4:	Perform meta-analysis and interpret the result																		
Course Learning Outcomes (CLO):	At the end of this course, learners will be able to:																		
CLO-1:	To describe the steps in conducting a systematic review	1	95	85	H	-	-	-	-	-		-		-	-	-	-	-	-
CLO-2:	To develop an answerable question using the “Participants Interventions Comparisons Outcomes” (PICO) framework	1	90	85	M	-	-	-	-	M	L	-	L	-	-	-	-	-	-
CLO-3:	To describe the process used to collect and extract data from reports	2	90	85	M	L	-	M	L	H	H	H	L	-	L	-	-	-	-
CLO-4:	To describe methods to critically assess the risk of bias	2	90	85	H	L	L	M	L	H	H	-	L	-	L	-	-	-	-
CLO-5:	To describe and interpret the results of meta-analyses	3	90	75	H	L	L	M	H	M	H	H	-	-	-	-	H	-	-

Duration (1.5 hour)		Introduction to Systematic Review	Finding the Evidence	Risk of Bias Assessment	Qualitative synthesis	Meta-analysis
S-1	SLO	Understand the basics systematic review and meta-analysis – Need, Importance and users of systematic review	Frame a systematic review question (PICO)	Quality Assessment of individual studies – Methods and tools	Developing data extraction sheet	Introduction to Meta-Analysis – Importance, forest plot basics
S-2	SLO	Illustrate the Steps in systematic review	Search principles – Key sources and techniques	Risk of bias assessment - Exercise	Data extraction guidelines - Exercise	Evaluate the Heterogeneity in included studies
S-3	SLO	Discuss Systematic review Examples in Cochrane Library	Identifying search keywords and developing search strategy – Case study	Protocol registration (Prospero, Cochrane)	Reporting guidelines (PRISMA)	Sensitivity analysis – Case studies
S-4	SLO	Systematic Review Case studies – for different types of review question and study design	Exercise to execute search queries in different databases	Exercise to develop review protocol on their own research area - Discussion	Describe Qualitative synthesis	Fixed effect and Random effect model - Exercise

Learning Resources	1. Cochrane handbook for systematic reviews of interventions. Julian PT Higgins, Sally Green, Oxford: Cochrane collaboration, 2011 2. Practical meta-analysis. Mark W Lipsey, David B Wilson, Sage Publications 2001	3. The handbook of research synthesis harris cooper, Larry V Hedges, Russel sage 1994. 4. Systematic reviews and meta-analysis pocket guide to social work research methods. Julia H Littell, Oxford Univ Press, 2008. 5. Beginner's guide for systematic review. https://main.icmr.nic.in/sites/default/files/upload_documents/BEGINNERS_GUIDE_FINAL_BOOK.pdf

Level	Blooms Levels of Thinking	Continuous Learning Assessment (100% Weightage)			
		CLA-1 (50%)		CLA-2 (50%)	
		Theory	Practice	Theory	Practice
1	Remember	40%	-	40%	-
2	Understand				
3	Apply	40%	-	40%	-
4	Analyze				
5	Evaluate	20%	-	20%	-
6	Create				
	Total	100%		100%	

Course Designers		
Experts from Industry	**Experts from Higher Technical Institutions**	**Internal Experts**
1. Mrs.Devika, Scientist B, NIE, ICMR, Chennai	1. Mr. Richard, Cochrane Asia, CMC, Vellore	1. Dr Dhivya K 2. Dr Janmejaya Samal

Course Code	PH23302T	Course Name	Public Health Informatics	Course Category	C	Professional Core	L	T	P	C
							2	0	0	2

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department		School of Public Health	Data Book / Codes/Standards	Nil	

Course Learning Rationale (CLR):	The purpose of learning this course is to:	Learning			Program Learning Outcomes (PLO)													
CLR-1:	Obtain the basics of Management Information Systems and components of Information Systems	1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CLR-2:	To critically evaluate the existing information system and analyze its strengths and limitations	Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)	Disciplinary Knowledge	Critical Thinking	Problem Solving	Analytical Reasoning	Research Skills	Teamwork	Scientific Reasoning	Reflective Thinking	Self-Directed Learning	Multicultural Competence	Ethical Reasoning	Community Engagement	ICT Skills	Leadership Skills	Life Long Learning
CLR-3:	To apply public health informatics tools for disease surveillance and outbreak investigation, and project management																		
CLR-4:	To appraise the ethical considerations surrounding public health data privacy and security																		
CLR-4:	Obtain an understanding of the roles of AI in Public Health Information Systems																		
Course Learning Outcomes (CLO):	At the end of this course, learners will be able to:																		
CLO-1:	Explain the basics of information systems along with their components	1	90	80	H	L	M	L	L	-	L	-	L	L	-	-	-	H	H
CLO-2:	Develop skills to assess existing IS based on indicators	3	85	75	H	H	M	M	H	M	L	M	H	M	-	H	-	M	H
CLO-3:	Can demonstrate an understanding of project management principles applicable to public health informatics initiatives	2	70	65	M	H	M	H	L	-	L	-	M	L	-	M	-	-	M
CLO-4:	Can able to follow ethical guidelines while designing Information systems.	2	85	75	H	M	H	M	M	L	L	-	L	L	-	M	-	-	H
CLO-5:	Can explain how AL and ML can be integrated with PHIS	3	85	75	L	H	H	H	L	H	L	H	M	L	-	H	-	H	L

Duration (hour)		Introduction to Public Health Informatics (6)	Surveillance data handling (6)	Public Health Informatics Systems Development (6)	Evaluation for Public Health Informatics (6)	Information Technology Systems Topics (6)
S-1	*SLO-1*	Understanding the Basic concepts of Informatics, Explaining Different Information systems and its purpose	Understanding the basics of surveillance system	Identifying problems and planning, Analyzing system needs	Understanding the basic need for Evaluating Public health informatics, Understanding types of evaluation in PHI	Understanding the need for AI in informatics
S-2	*SLO-1*	Understanding Components of information systems, Understanding Management information systems (MIS)	Overview of EHR – Visiting MDRF and SRM Medical College to learn the EHR	Designing the system, developing indicators to measure, Practical sessions to develop indicators for a program	Overview of Standards and Benchmarks in Public Health Informatics	Understanding current trends in Health informatics
S-3	*SLO-1*	Understanding Levels of MIS	Clarifying basic concepts of database management, Understanding the Privacy, security and Ethical issues with Health data	Testing the system and implementing and maintenance	Demonstrating Protocol development for evaluation of Informatics, Developing the indicator for the evaluation framework	Demonstrate surveillance system in India, Explain the need of AI in addressing the Gaps in Surveillance system
S-4	*SLO-1*	In-depth understanding of MIS	Clarifying Ethical issues for data and interpretation	IDSP system- from Govt health system, PHC and CHC	Case study- Evaluation of Information Systems Project Success – Insights from Practitioners	Presentation of individual on one selected information system

Learning Resources	1. Public Health Informatics and Information Systems Magnuson, J.A., Fu, Jr., Paul C. (Eds.) 2nd ed. 2014, XVIII, 666 p. 114 illus., 35 illus. in color. 2. Fried, A. and O'Carroll, P.W. (1998) "Public Health Informatics." In Last, J.M.(ed) Maxcey-Rosenau- Last Public Health & Preventive Medicine, 14th ed. Pp. 59-65. Appleton and Lange, Norwalk, CT.	3. Stair, R.M., & Reynolds, G.W. (2001). Principles of Information Systems 7th Edition Cambridge, MA: Course Technologies

Learning Assessment								
Level	Bloom's Level of Thinking	Continuous Learning Assessment (50% weightage)				University Examination (50% weightage)	
		CLA – 1 (25%)		CLA – 2 (25%)			
		Theory	Practice	Theory	Practice	Theory	Practice
1	Remember	40%	-	40%	-	40%	-
2	Understand						
3	Apply	40%	-	40%	-	40%	-
4	Analyze						
5	Evaluate	20%	-	20%	-	20%	-
6	Create						
	Total	100 %		100 %		100 %	

Course Designers		
Experts from Industry	Experts from Higher Technical Institutions	Internal Experts
1. Mr Suresh Mariaselvam, Independent Consultant, Chennai	1. Dr GaneshKumar Parasuraman, Scientist C, ICMR-NIE	1. Dr M Prakash, Asst prof, SRMIST

Course Code	PH23303T	Course Name	Health promotion	Course Category	C	Professional Core	L	T	P	C
							2	0	0	2

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department		School of Public Health	Data Book / Codes/Standards	Nil	

Course Learning Rationale (CLR):	The purpose of learning this course is to:	Learning			Program Learning Outcomes (PLO)													
CLR-1:	Understand the fundamentals of Health Promotion and its role in Public Health	1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CLR-2:	Identify the Strategies for effective communication from a Socio-Ecological Model approach	Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)	Disciplinary Knowledge	Critical Thinking	Problem Solving	Analytical Reasoning	Research Skills	Teamwork	Scientific Reasoning	Reflective Thinking	Self-Directed Learning	Multicultural Competence	Ethical Reasoning	Community Engagement	ICT Skills	Leadership Skills	Life Long Learning
CLR-3:	Learn about Strategies and application of concepts of health promotion																		
CLR-4:	Design health promotion campaigns for select social and community Health Issues																		
CLR-4:	Analyse approaches to Health Literacy																		
Course Learning Outcomes (CLO):	At the end of this course, learners will be able to:																		
CLO-1:	Learn about health promotion and its role in Public health	3	85	80	H	L	-	-	M	H	-	H	M	-	H	M	L	M	H
CLO-2:	Apply knowledge and build skills for effective communication and strategic communication	3	85	80	H	L	-	-	M	H	-	H	M	-	H	M	L	M	H
CLO-3:	Become a well-informed public health specialist about national health promotion policies	3	85	80	H	L	-	-	M	H	-	H	M	-	H	M	L	M	H
CLO-4:	Understand and find solutions for Community and Social health problems	3	85	80	H	L	-	-	M	H	-	H	M	-	H	M	L	M	H
CLO-5:	Learn about Health Literacy, Readability and Numeracy	3	85	80	H	L	-	-	M	H	-	H	M	-	H	M	L	M	H

Duration (hour)		Health Promotion	Health Communication Strategies	Health Programs / Needs Assessment/ Social and Community Health Issues	Health Campaigns	*Campaign Evaluation / Health Literacy and Numeracy*
S-1	SLO-1	Definition and scope of Health Promotion	Planning Models: Socio-Ecological Model	Go Red for Women: Case Study	Effective public health campaigns Addressing determinants of health	Formative or baseline evaluation before a project is implemented: Secondary data or conduct research for primary data Log Frame: IPO model
S-1	SLO-2	Learn and differentiate Health Promotion vs Prevention vs Health Protection	*Social Organizing Framework*			
S-2	SLO-1	Learn and apply Health Promotion Strategies: Role of Communication in crafting Strategies	Planning Models: WHO Framework	Community Needs Assessment: A community needs assessment for rural mental health promotion. Margaret M. Barry, Ann Doherty, Ann Hope, Jane Sixsmith, C. Cecily Kelleher Health Education Research, Volume 15, Issue 3, June 2000, Pages 293–304, https://doi.org/10.1093/her/15.3.293 - Review	Characteristics of Effective Public Health Campaigns Learning about, and practicing development, of SOCOS – Single Overarching Communication Outcome that you want to archive Defining and mapping your target audience • Developing key messages for your SOCO • Tools and tactics for creating a campaign	Mid-point evaluations are conducted as the project progresses: Process Evaluation.
S-2	SLO-2					
S-3	SLO-1	Basics of Communication: Overview / Oral / Written	Planning Models: SEM / Precede-Proceed	Learn about social and personal responsibilities and control measures in Public Health	Develop a SOCO:	Summative evaluation is conducted at the end of a project to compare outputs and outcomes with baseline measures
S-5	SLO-1	Shannon Weaver Model		Community Health Issues: Tobacco Use, Analyze and discuss	Group activity: map target audience	
S-5	SLO-2					
S-6	SLO-1	Barriers / Facilitator for effective communication		Community Health issues: Obesity? Individual problem or population issue - Discussion	Develop effective key Messages soco & key message grid	
S-6	SLO-2					
S-7	SLO-1	Precede-Proceed Model of Planning	Learn and Apply social media as a Health Promotion Tool	Drug Use in Young Indians – An issue or not. Discussion	PREPARING A PUBLIC HEALTH CAMPAIGN: Build Your Own Model Campaign	General Pulse of the community about the campaign. Example: Swacch Bharat Campaign / Oral Polio Campaign
S-7	SLO-2					

S-8	SLO-1 SLO-2	Applications of the Precede Proceed Model		Alcoholism: A community problem enabled by the Government? Discuss	Choose one or at most two "TARGET AUDIENCEs" that you want to convince of your aim:	
S-9	SLO-1	Behavior: Human behavior	Learn about Overview of Current National Policies In HP	https://www.thehindu.com/news/national/tamil-nadu/81-of-rural-families-in-tn-suffered-domestic-violence-during-lockdown-survey/article31915775.ece Discussion	Map your audience in terms of champions, silent boosters, blockers, avoiders	Defining Health Literacy; Literacy in India investigate
S 10	SLO-1	Attitudes and Knowledge: Traits of behavior	Learn and review National Health Promotion: Communicable / Non Communicable Diseases	Road Traffic Accidents: Unintentional Injuries / mortality. A Socio-Ecological Analysis	Develop your audience "Avatar"; Key messages	Defining Numeracy, Need for Health Literacy for better Health Outcomes
S 11	SLO-1	Behavior Change Communication	Learn about Evidence Based Communication in Health Promotion: Need for evaluation	Mid-term Exam: MCQ	Tools - What sources of information does this group rely upon most; Tactics and Setting	Identifying and analysing barriers of Health Literacy and Tools to assess Health Literacy
S 12	SLO-1	Various Models of Behavior Change	https://www.researchgate.net/profile/Nicolaas_Pronk/publication/23733236_Designing_and_Evaluating_Health_Promotion_Programs_Simple_Rules_for_a_Complex_Issue/links/5b3b5fc7aca2720785058e3f/Designing-and-Evaluating-Health-Promotion-Programs-Simple-Rules-for-a-Complex-Issue.pdf - Discuss/ Review		Based on this consideration of your AIM (SOCO) + Target Audience, complete your initial strategy SOCO • Target Audience Mapping • Avatar (optional) • KEY Messages • TOOLSs • TACTICS and SETTINGS • What your Audience will think, feel and DO, as a result of your campaign (SOCO)	Class Activity; Flesch Kincaid Reading Levels Learn and apply SMOG scores for reading materials:

Learning Resources	1. Health promotion Principles and Approaches: Bishan Swarup Garg Mahatma Gandhi Institute of Medical Sciences, India 10.5772/intechopen.107637	2. Public Health Approaches to Health Promotion Edited By Monika Arora, Shifalika Goenka, 1st Edition

Learning Assessment

Level	Bloom's Level of Thinking	Continuous Learning Assessment (50% weightage)				University Examination (50% weightage)	
		CLA – 1 (25%)		CLA – 2 (25%)			
		Theory	Practice	Theory	Practice	Theory	Practice
1	**Remember**	40%	-	40%	-	40%	-
2	**Understand**						
3	**Apply**	40%	-	40%	-	40%	-
4	**Analyze**						
5	**Evaluate**	20%	-	20%	-	20%	-
6	**Create**						
	Total	**100 %**		**100 %**		**100 %**	

Course Designers

Experts from Industry	Experts from Higher Technical Institutions	Internal Experts
1. Dr. Gayatri Mishra Oleti, Head L&T Foundation	1. Dr.Vijayaprasad Gopichandran, Independent consultant	1. Geetha Veliah

Course Code	PH23304T	Course Name	Geospatial Statistics	Course Category	S	Skill Enhancement	L	T	P	C
							1	1	0	2

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department		School of Public Health	Data Book / Codes/Standards	Nil	

Course Learning Rationale (CLR):	The purpose of learning this course is to:	Learning			Program Learning Outcomes (PLO)														
CLR-1:	Utilize various GIS and navigation tools and techniques to handle spatial and non-spatial database	1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CLR-2:	Understand concepts of data visualization of spatial data	Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)	Disciplinary Knowledge	Critical Thinking	Problem Solving	Analytical Reasoning	Research Skills	Teamwork	Scientific Reasoning	Reflective Thinking	Self-Directed Learning	Multicultural Competence	Ethical Reasoning	Community Engagement	ICT Skills	Leadership Skills	Life Long Learning
CLR-3:	Able to conceptualize spatial autocorrelation																		
CLR-4:	Utilize knowledge to do spatial regression analysis																		
CLR-4:	Able to use knowledge to solve spatial problems																		
Course Learning Outcomes (CLO):	At the end of this course, learners will be able to:																		
CLO-1:	Describe various GIS and Navigation tools and techniques within spatial analytical framework and handle spatial and non-spatial database.	1	95	85	H	-	-	-	-	-		-		-	-	-	H	-	-
CLO-2:	Able to visualize spatial data for better understanding	1	90	85	M	-	-	-	-	-	L	-	H	-	-	-	H	-	-
CLO-3:	Analyze spatial data for spatial autocorrelation	2	90	85	M	L	L	M	L	L	H	H	H	-	L	-	H	-	-
CLO-4:	Predict using spatial regression models	2	90	85	H	L	L	M	L	L	H	-	H	-	L	-	H	-	-
CLO-5:	Apply integrated geospatial techniques in health care problems.	3	90	75	H	L	L	M	H	M	H	H	H	-	-	-	H	-	-

Duration (1.5 hour)		Spatial Data (8)	Visualization of Spatial Data (8)	Spatial Auto Correlation Analysis (8)	Spatial Regression Analysis (8)	Project Work (8)
S-1	SLO	Understanding the Global Information System: Definition, Philosophy & Historical evolution of GIS	Understanding the basics of Visualization	Explain the concept of autocorrelation	Introduction to spatial regression concept	Discuss on spatial problem
S-2	SLO	Understanding the components of GIS	Explain different type of maps for point and areal features	Understand the assumptions and aims of autocorrelation	Fitting of Regression Models for Independent and Spatially Auto Correlated Data	Conceptualize the problem for spatial analysis
S-3	SLO	Understanding basic concepts of spatial data and non-spatial data	Differentiate symbolization in Maps, Explain visual variables and color	Explain the statistics for autocorrelation	Interpretation of spatial data	Tools for spatial data collection
S-4	SLO	Understanding basic concepts of spatial data models – Raster and Vector data	Explain different spatial analysis techniques	Morans I and Geary's C	Spatial Error and spatial lag model	Spatial Data collection
S-5	SLO	QGIS – Introduction Practical	QGIS Spatial analysis Practical	Understanding Local Indicators of Spatial Associations, Assumptions and Aim	Spatial regression - Practical	Spatial Data collection
S-6	SLO	In depth understanding of Raster Data, Vector data and its Representation	Understand weighting in spatial analysis	Understanding Local Indicators of Spatial Associations	Spatial Regression model - interpretation	Spatial Data analysis
S-7	SLO	Understanding data structures and file format	GeoDa - Introduction	GeoDa Maps - Practtical	Spatial technologies in public health - Applications	Spatial Data analysis
S-8	SLO	Understanding Geocoding Issues and Location uncertainty	Spatial weights - Practical	Autocorrelation - Practical	Case study on Public health applications	Spatial Data analysis

Learning Resources	
	1. Applied spatial statistics for public health data by Walter LA, Gotway CA. Wiley Series,2004 2. Applied spatial data analysis with R by Roger SB, Edzer JP. Springer Series, 2013. 3. Geoda User guide by Luc Anselin, Center for spatially integrated social science, 2003. 4. Interactice spatial data analysis by Trevor Bailey. Prentice Hall, 2nd Ed 2009.

Learning Assessment							
Level	Bloom's Level of Thinking	Continuous Learning Assessment (50% weightage)				University Examination (50% weightage)	
		CLA – 1 (25%)		CLA – 2 (25%)			
		Theory	Practice	Theory	Practice	Theory	Practice
1	Remember	40%	-	40%	-	40%	-
2	Understand						
3	Apply	40%	-	40%	-	40%	-
4	Analyze						
5	Evaluate	20%	-	20%	-	20%	-
6	Create						
	Total	100 %		100 %		100 %	

Course Designers		
Experts from Industry	Experts from Higher Technical Institutions	Internal Experts
1. Dr Vasna Josua , Scientist C , ICMR NIE , Chennai	1. Dr.L.Jeyseelan, Professor, CMC, Vellore	1. Dr Gladius Jennifer, SRMIST 2. Dr Dhivya K, SRM IST

Course Code	PH23305T	Course Name	Project planning, implementation, monitoring and evaluation (PIME)	Course Category	PE	Professional Elective	L	T	P	C
							3	2	0	5

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department		School of Public Health	Data Book / Codes/Standards	Nil	

Course Learning Rationale (CLR):	The purpose of learning this course is to:	Learning			Program Learning Outcomes (PLO)														
CLR-1:	Understand Public health project planning	1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CLR-2:	Understand ways and means to implement public health projects	Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)	Disciplinary Knowledge	Critical Thinking	Problem Solving	Analytical Reasoning	Research Skills	Teamwork	Scientific Reasoning	Reflective Thinking	Self-Directed Learning	Multicultural Competence	Ethical Reasoning	Community Engagement	ICT Skills	Leadership Skills	Life Long Learning
CLR-3:	Understand monitoring of public health projects																		
CLR-4:	Understand evaluation of public health projects																		
CLR-4:	Learn writing a public health project proposal																		
Course Learning Outcomes (CLO):	At the end of this course, learners will be able to:																		
CLO-1:	Plan public health project(s)	2	85	80	M	M	L	M	M	H	M	H	H	M	M	H	H	M	M
CLO-2:	Design and implement a public health project(s)	3	85	75	M	M	L	M	M	H	M	H	H	M	M	H	H	M	M
CLO-3:	To supervise and monitor public health project(s)	2	80	75	M	M	L	M	M	H	M	H	H	M	M	H	H	M	M
CLO-4:	To conduct evaluation of public health project(s)	3	85	80	M	M	L	M	M	H	M	H	H	M	M	H	H	M	M
CLO-5:	To write proposal for public health project(s)	3	80	75	M	M	L	M	M	H	M	H	H	M	M	H	H	M	M

Duration (1 hour)		Project Planning (12)	Project Implementation (12)	Project Monitoring (12)	Project Evaluation (12)	Proposal writing (12)
S-1	SLO	Health projects and its types	Preparing an implementation plan- resource mapping, microplanning	Definition and process of monitoring	Difference between monitoring and evaluation	Orientation on proposal writing
S-2	SLO	Management cycle and Health project planning	HR- Developing a team	Preparing a monitoring plan	Types and scope of evaluation	Practicum (15): Group work: Prepare a proposal on "Promoting use of ORS and zinc in diarrhoea"
S-3	SLO	Situational analysis and stakeholder mapping	Job responsibilities of staff members	Develop tools for monitoring	Donabedian's model	Group work: Prepare a proposal on " Increasing uptake of postpartum IUCD
S-4	SLO	Prioritization	Capacity building of the team	Assignment	Designing evaluation of a health project	Group work: Prepare a proposal on " Reducing gender based discrimination in a conservative society"
S-5	SLO	Strategy development	Role of a leader/ manager/ supervisor	Presentations	Developing tools for evaluation	Group work: Prepare a proposal on " Reducing tobacco dependence in adolescents"
S-6	SLO	Objective formulation	Motivation	Data analysis	Impact evaluation	Group work: Prepare a proposal on "Organizing screening of cervical cancer"
S-7	SLO	Logical Framework Analysis	Finance -Preparing a budget	Report writing	Report writing	Group work: Prepare a proposal on " Early initiation of breast feeding"
S-8	SLO	Formulation of Gantt Chart	Assignment	Monitoring quality of project implementation	Practicum (11): Group work: Evaluation of health projects	Group work: Prepare a proposal on "Reducing anaemia in adolescent girls in a rural district"
S-9	SLO	Practicum (1): Group work: Brainstorm and identify a health problem	Health Information System	Field work: Visit a Project site/health camp/session and observe the delivery of services from monitoring perspective	Gr-1- Evaluate ICDS program. Gr-2, Evaluate NTEP Gr-3, Evaluate NPCDCS	Group work: Prepare a proposal on " Increasing age of marriage"
S-10	SLO	Practicum (2): Plan a project	Practicum (5): Group work: Gr-1-Conduct resource mapping of a health camp on Active Case Finding on TB Gr-2, Prepare the job responsibilities of team members for the camp. Gr-3, Prepare a tentative budget for the camp	Practicum (8): Group work: Gr-1-Conduct indicator mapping Gr-2, Prepare a monitoring tool. Gr-3, Prepare an analysis plan	Practicum (12): Present the Group work	Group work: Prepare a proposal on " Reducing anaemia in adolescent girls in a rural district"

S-11	SLO	Practicum (3): Present the plan	Practicum (6): Present the Group work	Practicum (9): Present the Group work	Practicum (13): Open discussion and feedback	Group work: Prepare a proposal on " Increased uptake of TB Preventive Treatment in a rural community"
S-12	SLO	Practicum (4): Open discussion and feedback	Practicum (7): Open discussion and feedback	Practicum (10): Open discussion and feedback	Practicum (14): Open discussion and feedback	Group work: Prepare a proposal on "Increased uptake of comprehensive primary healthcare services at the HWCs"

Learning Resources	1. Plan Implementation, Monitoring and Evaluation, Unit 10, Vanishree J, Uma G. IGNOU, Apr 2017 2. Field E, Vila M, Runk L, Mactaggart F, Rosewell A, Nathan S. Lessons for health program monitoring and evaluation in a low resource setting. Rural and Remote Health 2018; 18: 4596. https://doi.org/10.22605/RRH4596	3. A Framework for Program Evaluation, Centers for Disease Control and Prevention, https://www.cdc.gov/evaluation/framework/index.htm

Learning Assessment

Level	Bloom's Level of Thinking	Continuous Learning Assessment (50% weightage)				University Examination (50% weightage)	
		CLA – 1 (25%)		CLA – 2 (25%)			
		Theory	Practice	Theory	Practice	Theory	Practice
1	**Remember**	40%	-	40%	-	40%	-
2	**Understand**						
3	**Apply**	40%	-	40%	-	40%	-
4	**Analyze**						
5	**Evaluate**	20%	-	20%	-	20%	-
6	**Create**						
	Total	100 %		100 %		100 %	

Course Designers

Experts from Industry	Experts from Higher Technical Institutions	Internal Experts
1. Dr Nirmala Murthy, FRHS	1. Dr. Balraj Dhiman, Director- Professor Community Medicine, Lady Harding Medical College, New Delhi	1. Dr. B. Kalpana, SRMIST 2. Dr Janmejaya Samal 3. Dr Hari Singh

Course Code	PH23306T	Course Name	Management of public health programs	Course Category	PE	Professional Elective	L	T	P	C
							3	2	0	5

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department		School of Public Health	Data Book / Codes/Standards	Nil	

Course Learning Rationale (CLR):	The purpose of learning this course is to:	Learning			Program Learning Outcomes (PLO)														
CLR-1:	Understand the management tools and techniques for Non-communicable Disease Control Programs in India	1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CLR-2:	Communicable Disease Control Programs in India	Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)	Disciplinary Knowledge	Critical Thinking	Problem Solving	Analytical Reasoning	Research Skills	Teamwork	Scientific Reasoning	Reflective Thinking	Self-Directed Learning	Multicultural Competence	Ethical Reasoning	Community Engagement	ICT Skills	Leadership Skills	Life Long Learning
CLR-3:	National Digital Health Mission/ABDM																		
CLR-4:	Ayushman Bharat and Comprehensive Primary Healthcare																		
CLR-4:	National Health Mission																		
Course Learning Outcomes (CLO):	At the end of this course, learners will be able to:																		
CLO-1:	Contribute to management of Non-communicable Disease Control Programs in India	1	75	70	H	H	-	-	L	H	-	-	-	-	-	-	-	-	H
CLO-2:	Communicable Disease Control Programs in India	2	85	75	M	H	M	-	M	H	-	-	H	H	M	H	-	-	M
CLO-3:	National Digital Health Mission/ABDM	3	75	70	H	H	M	H	M	H	-	H	H	H	-	H	-	-	H
CLO-4:	Ayushman Bharat and Comprehensive Primary Healthcare	3	85	80	M	H	H	-	L	H	-	-	M	H	H	H	-	-	M
CLO-5:	National Health Mission	3	80	75	M	H	H	-	H	-	-	-	H	H	H	H	H	-	M

Duration (hour)		Non-communicable Disease Control Programs in India (12)	Infectious Disease Control Programs in India (12)	National Digital Health Mission/ /ABDM and other programs of national Importance (12)	Ayushman Bharat (AB) and Comprehensive Primary Healthcare (CPHC) 12	National Health Mission (12)
S-1	SLO	National Program for prevention & Control of Cancer, Diabetes, Cardiovascular Diseases & stroke (NPCDCS)	National TB Elimination Program (NTEP)	Context and Rationale of National Digital Health Mission/ABDM	Overview of AB, E-Sanjivanee and ABHA ID	Rationale and evolution of National Health Mission
S-2	SLO	India Hypertension Control Initiative (IHCI)	National Vector Borne Control Program (NVBDCP)	Objectives of National Digital Health Mission/ABDM	National Health Authority	Structure and Function of NHM (including the National urban Health Mission)
S-3	SLO	National Mental Health Program (NMHP)	National AIDS Control Program (NACP)	Implementation arrangements of National Digital Health Mission/ABDM	Pradhan Mantri Jan Arogya Yojana (PMJAY)	Role of Common Review Mission and critical appraisal of some CRM(s). Role of National Health System Resource Centre (NHSRC) as a think tank of NHM
S-4	SLO	Practicum (1): Group work: Literature review of NCD(s) and present in the class	COVID-19 and recent developments	Integrated Disease Surveillance Project (IDSP)	Comprehensive Primary Healthcare (CPHC)	Practicum (6): Group work: Visit NHM-DPMU of a district to understand the structure and functions
S-5	SLO	Practicum (2): Group work: Visit a district program management unit and study a NCD program	Practicum(4): Group work: Visit a Development agency and critically appraise the organization and a currently run public health project related to CD	National AYUSH Mission	HWC/Ayushman Arogya Mandir	Practicum (7): Group work: Prepare a report
S-6	SLO	Practicum (3): Group work: Prepare report, present and open discussion based on field visit	Practicum(5): Group work: Prepare a report and present	School Health Program/ RBSK/ MDM/ ICDS	Practicum: Individual Assignment: Literature review on progress of AB and submit a report	Practicum (8): Group work: Presentation and open discussion
S-7	SLO	Viva	Viva	Viva	Viva	Exam
S-8	SLO	Viva	Viva	Viva	Viva	Exam

Learning Resources	1. Park's Textbook of Preventive and Social Medicine 24th/2017. Banarsidas Bhanot publication 2. Public Health and Community Medicine Rajvir Thalwar. First edition-AFMC & WHO, 2009 3. National Digital Health Mission. Ministry of Health and Family Welfare. https://www.niti.gov.in/sites/default/files/2023-02/ndhm_strategy_overview.pdf 4. National Health Mission. Ministry of Health and Family Welfare. https://nhm.gov.in/images/pdf/NHM/NHM_more_information.pdf 5. National Rural Health Mission. Ministry of Health and Family Welfare. https://nhm.gov.in/WriteReadData/l892s/nrhm-framework-latest.pdf 6. National AYUSH Mission. Ministry of AYUSH, Govt. of India. https://namayush.gov.in/sites/all/themes/webcms/images/org_str/National_AYUSH_Mission2021-22to2025-26.pdf 7. Ayushman Bharat, Comprehensive Primary Healthcare through Health and Wellness Centres. https://www.nhm.gov.in/New_Updates_2018/NHM_Components/Health_System_Stregthening/Comprehensive_primary_health_care/letter/Operational_Guidelines_For_CPHC.pdf

Learning Assessment

Level	Bloom's Level of Thinking	Continuous Learning Assessment (50% weightage)				University Examination (50% weightage)	
		CLA – 1 (25%)		CLA – 2 (25%)			
		Theory	Practice	Theory	Practice	Theory	Practice
1	Remember	40%	-	40%	-	40%	-
2	Understand						
3	Apply	40%	-	40%	-	40%	-
4	Analyze						
5	Evaluate	20%	-	20%	-	20%	-
6	Create						
	Total	100 %		100 %		100 %	

Course Designers

Experts from Industry	Experts from Higher Technical Institutions	Internal Experts
Dr Nirmala Murthy, FRHS	Dr. Balraj Dhiman, Director- Professor Community Medicine, Lady Harding Medical College, New Delhi	1. Dr Kalpana B, SRMIST 2. Dr Janmejaya Samal 3. Dr Hari Singh

Course Code	PH23307T	Course Name	Epidemiological methods and Epidemic Management	Course Category	PE	Professional Elective	L	T	P	C
							3	2	0	5

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department		School of Public Health	Data Book / Codes/Standards	Nil	

Course Learning Rationale (CLR):	The purpose of learning this course is to:	Learning			Program Learning Outcomes (PLO)														
CLR-1:	Examine salient features of case control study design as an efficient research method	1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CLR-2:	Scrutinize cohort study designs and its variants in longitudinal studies in public health	Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)	Disciplinary Knowledge	Critical Thinking	Problem Solving	Analytical Reasoning	Research Skills	Teamwork	Scientific Reasoning	Reflective Thinking	Self-Directed Learning	Multicultural Competence	Ethical Reasoning	Community Engagement	ICT Skills	Leadership Skills	Life Long Learning
CLR-3:	Application of clinical epidemiology for evidence based clinical and public health																		
CLR-4:	Understand concept of bias in research studies and strategies to minimize bias in research studies																		
CLR-4:	Build skills in disease outbreak investigation, control and prevention																		
Course Learning Outcomes (CLO):	At the end of this course, learners will be able to:																		
CLO-1:	Compare and contrast nuances, strength and weaknesses of various epidemiological study designs	3	80	70	L	H	-	H	L	-	-	-	L	L	-	H	-	-	-
CLO-2:	Validation of diagnostic tests for enhancing accuracy and precision in clinical research	3	85	75	M	H	L	M	L	-	-	-	M	L	-	H	-	-	-
CLO-3:	Hypothesis testing in both in Retrospective and prospective research designs	3	75	70	M	H	M	H	L	-	-	-	M	L	-	H	-	-	-
CLO-4:	Promote Evidence based medicine practice in clinical and public health practice	3	85	80	M	H	M	H	L	-	-	-	M	L	-	H	-	-	-
CLO-5:	Implement Epidemic/pandemic preparedness plan with inter-sectoral coordination	3	85	75	H	H	M	H	L	-	-	-	M	L	-	H	-	-	-

Duration (hour)		Descriptive study design (15)	Case control study design (15)	Cohort Study Design (15)	Experimental Study Design And Bias (15)	Field Epidemiology: Outbreak Management (15)
S-1	**SLO**	Basic epidemiology: Recap	Case control study design; When is a case-control study warranted	Cohort study design; selection of study population; When is a cohort study warranted	Experimental study design; RCT	Define outbreak, epidemic, pandemic, endemic; criteria for establishing outbreak
S-2	**SLO**	Basic epidemiology: Recap	Selection of cases and controls; Matching, Bias	Prospective and retrospective study design	Randomization and blinding	Understand the SIR model
S-3	**SLO**	Basic epidemiology: Recap	Odds ratio	Relative risk	Quasi-experimental designs	Steps of outbreak investigation
S-4	**SLO**	Epidemiological study designs; Observational studies; Descriptive study design	Case study on Nested case control study	Attrition in cohort studies	Concept and types of bias in epidemiology	Discuss WHO pandemic stages
S-5	**SLO**	Cross sectional study design	Assignment	Case studies on prospective and retrospective study design	Interpretation of results; tests of significance	Case study - Covid-19 Pandemic
S-6	**SLO**	Ecological study design	Feedback	Presentations	Assignment	Assignment – Outbreak investigation
S-7	**SLO**	Assignment	Confounding; strategies to reduce confounding	Feedback	Feedback	Presentation - Public Health Response to Pandemics
S-8	**SLO**	Viva	Viva	Viva	Viva	Exam

Learning Resources	1. Case-control studies. By Schlesselman, James J.Oxford University Press, New York, 1982. WA950 S342x. Oxford University Press; 1 edition (January 21, 1982) 2. Epidemiology. By Leon Gordis, Elsevier Publications. 2004, Third Edition 3. Epidemiology: Beyond the Basics by MoysesSzklo. Jones & Bartlett Learning; 3 edition (October 24, 2012) 4. Outlook of pandemic preparedness in a post-COVID-19 world. https://doi.org/10.1038/s41541-023-00773-0

Learning Assessment							
Level	Bloom's Level of Thinking	Continuous Learning Assessment (50% weightage)				University Examination (50% weightage)	
		CLA – 1 (25%)		CLA – 2 (25%)			
		Theory	Practice	Theory	Practice	Theory	Practice
1	Remember	40%	-	40%	-	40%	-
2	Understand						
3	Apply	40%	-	40%	-	40%	-
4	Analyze						
5	Evaluate	20%	-	20%	-	20%	-
6	Create						
	Total	100 %		100 %		100 %	

CLA – 2 can be from any combination of these: Assignments, Seminars, Short Talks, Mini-Projects, Case-Studies, Self-Study, MOOCs, Certifications, Conf. Paper etc.,

Course Designers		
Experts from Industry	**Experts from Higher Technical Institutions**	**Internal Experts**
1. Dr. Aneesh Thomas George, Consultant, Novartis, Hyderabad	1. Dr. Rajeev Sarkar, Associate Professor, IIPH, Shillong	1. Dr Alex Joseph 2. Dr Hari Singh

Course Code	PH23308T	Course Name	Applied multivariate analysis	Course Category	PE	Professional Elective	L	T	P	C
							3	2	0	5

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department		School of Public Health	Data Book / Codes/Standards	Nil	

Course Learning Rationale (CLR):	The purpose of learning this course is to:	Learning			Program Learning Outcomes (PLO)														
CLR-1:	Gain basic understanding of the theoretical rationale for multivariate	1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CLR-2:	statistics	Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)	Disciplinary Knowledge	Critical Thinking	Problem Solving	Analytical Reasoning	Research Skills	Teamwork	Scientific Reasoning	Reflective Thinking	Self-Directed Learning	Multicultural Competence	Ethical Reasoning	Community Engagement	ICT Skills	Leadership Skills	Life Long Learning
CLR-3:	Gain an understanding of various designs of experimental techniques																		
CLR-4:	Develop skills in using statistical software like SPSS & STATA to analyze multivariate data																		
CLR-4:	Able to interpret results, and communicate the results for given data																		
Course Learning Outcomes (CLO):	At the end of this course, learners will be able to:																		
CLO-1:	Identify and understand the structure of multivariate data	3	95	85	H	H	M	H	H	H	H	H	H	H	M	H	M	H	H
CLO-2:	Able to perform Analysis of variance and Factorial designs	3	90	80	H	H	M	H	H	H	H	H	H	H	M	H	M	H	H
CLO-3:	Understand the assumptions needed for the classification analysis and able to do exploratory analysis with SPSS	3	90	80	H	H	M	H	H	H	H	H	H	H	M	H	M	H	H
CLO-4:	Analyses and interpret various types of cluster analysis in community-based studies	3	90	80	H	H	M	H	H	H	H	H	H	H	M	H	M	H	H
CLO-5:	Able to understand and draw meaningful multilevel analysis and interpret it	3	90	80	H	H	M	H	H	H	H	H	H	H	M	H	M	H	H

Duration (hour)		Introduction to Multivariate Data(8)	ANOVA & Factorial Designs(8)	Exploratory Analysis(8)	Cluster analysis (8)	Path analysis & SEM (8)
S-1	SLO	Introduction to Multivariate approach	Completely randomized design, Randomized block design	Learn Principal components analysis	concepts of Distance, Similarity	Concepts of Path analysis
S-2	SLO	difference between univariate and multivariate analysis	Repeated Measures and Summary statistics	Understand Rotation, Varimax	Evaluate K-Means cluster analysis	Introduction of AMOS software
S-3	SLO	Normality Test, assumptions	Multivariate ANOVA	Learn correlation matrix, Eigen value	Compute K mean centroid - SPSS	Structural Equation Modeling
S-4	SLO	Methodologies of Data Cleaning, missing data handling	Understand One-way Manova	Evaluate Factor analysis	Two-Step cluster analysis - SPSS	Construction of SEM
S-5	SLO	Two mean comparison & two proportion tests	Factorial design and types	FA Practical – Record Output with SPSS	Practical – Record Output with SPSS	Concepts of Multi level models
S-6	SLO	Relate Distribution of F & t	22 , 23, 32Factorial analysis	Predict Corspondence analysis	Hierarchical Clustering Techniques	Multilevel model fits
S-7	SLO	Restate of one-way ANOVA with SPSS	Factorial analysis - Problem Solving Exercises SPSS	Multidimensional Scaling	Construct Discriminant Analysis	Discussion and presentation with article examples
S-8	SLO	Multiple Linear Regression with SPSS	Discussion and presentation with article examples	CA, MDA Practical – Record Output with SPSS	HCA, DA Practical – Record Output with SPSS	Practical – Record Output with SPSS / AMOS

Learning Resources	1. Applied multivariate statistical analysis by Johnson RA, Wichern DW, Pearson Prentice hall, NY, 6th Ed, 2007.	2. Multivariate data analysis by Joseph FH, William CB, Prentice Hall pub, 7th ED, 2010 3. Multivariate data reduction and discrimination with SAS software, Khattree RN, Naik DN, SAS institute inc, 2000.

Learning Assessment							
Level	Bloom's Level of Thinking	Continuous Learning Assessment (50% weightage)				University Examination (50% weightage)	
		CLA – 1 (25%)		CLA – 2 (25%)			
		Theory	Practice	Theory	Practice	Theory	Practice
1	Remember	40%	-	40%	-	40%	-
2	Understand						
3	Apply	40%	-	40%	-	40%	-
4	Analyze						
5	Evaluate	20%	-	20%	-	20%	-
6	Create						
	Total	100 %		100 %		100 %	

Course Designers		
Experts from Industry	Experts from Higher Technical Institutions	Internal Experts
1. Mrs. Kanimozhi, Biostatistician, Pfizer, Bangalore	1. Dr.Prasanna samuel, Associate Professor, CMC, Vellore	1. Dr H Gladius Jennifer, Associate Professor, SRMIST

Course Code	PH23309T	Course Name	Health economics and healthcare financing	Course Category	PE	Professional Elective	L	T	P	C
							3	2	0	5

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department		School of Public Health	Data Book / Codes/Standards	Nil	

Course Learning Rationale (CLR):	The purpose of learning this course is to:	Learning			Program Learning Outcomes (PLO)													
CLR-1:	Learn the health economics concepts, theories and methods applicable in the sphere of healthcare and everyday economic problems	1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CLR-2:	Impart the economic evaluation techniques used in the field of public health	Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)	Disciplinary Knowledge	Critical Thinking	Problem Solving	Analytical Reasoning	Research Skills	Teamwork	Scientific Reasoning	Reflective Thinking	Self-Directed Learning	Multicultural Competence	Ethical Reasoning	Community Engagement	ICT Skills	Leadership Skills	Life Long Learning
CLR-3:	Understand how to use empirical evidence to evaluate the public health related economic problems																		
CLR-4:	Create ability to critically evaluate government policies and programmes through economic theory																		
CLR-4:	Understand concepts of healthcare financing, various sources of financing, its advantages and limitations as well as to provide the training in the aspects of health care financing to analyse the financial status of different health systems and health services																		
Course Learning Outcomes (CLO):	At the end of this course, learners will be able to:																		
CLO-1:	Have a good understanding of how economic theory and methods are applied in the health care sector and the financing of health services in different systems	3	85	80	H	H	H	H	H	L	M	H	H	L	L	L	M	L	H
CLO-2:	Have the ability to make use of the scientific literature as well as identify the strengths and weaknesses in theoretical and empirical works in the perspective of economics	3	85	80	H	H	H	M	H	L	M	H	H	L	L	L	M	L	H
CLO-3:	Ability to perform the application of economic evaluation on healthcare interventions/programmes and other related issues	3	85	80	H	H	H	H	H	L	H	H	H	L	L	L	H	L	H
CLO-4:	Enhanced conceptual clarity on healthcare financing, sources of finance, approaches and methods	3	85	80	H	H	H	H	H	M	H	H	M	L	L	L	H	L	H
CLO-5:	Have a good empirical understanding about various health systems are organised and financed by central government, public and private care providers as well as to have ability to critically analyse the applicability and impact of public health policies and interventions	3	85	80	H	H	H	H	H	L	H	H	H	L	M	M	L	L	H

Duration (hour)		Fundamentals of Health Economics (12)	Demand and Supply for Health Care Services (12)	Techniques of economic evaluation (12)	Health Care Financing Concepts (12)	Health Financing Models (12)
S-1	SLO-1	To familiarise with the introduction to health economics	To understand the concept of demand--Need and demand- elasticity of demand	To know the principles and application of economic evaluation in health care	To describe the strategizing and prioritizing within scarce resources (decision making) To recognise 'How much we are spending'	To know the Universal health coverage and role of health care financing
S-2	SLO-1	To understand the key concepts of economics	To know the demand for health and health services	To illustrate the types of economic evaluation	Class Presentation: To demonstrate the Trends in Per-capita healthcare expenditure in the World, India and States	Discussion: To illustrate the Universal Health Coverage by WHO, Universal Health Coverage in India
S-3	SLO-1	To learn about micro and macroeconomics- opportunity cost	To recognise the concept of Supply-Analysing supply and supply shifters	To understand the measurement of health benefits in terms of QALYS and related measures	To know the three functions of health financing	To describe the Private Health Insurance, Social Health Insurance - Community Health Insurance
S-4	SLO-1	To know the goods and services in public health- merit good- public good or social good	To familiarise with the elasticity of supply - Supply of health services	To prepare Disability Adjusted Life Years (DALY)	To analyse the types of Financing- (a) General revenue – (b) Insurance	Class Presentation: To present the Health Insurances in India (Government, Private, Community, Employees funded etc.)
S-5	SLO-1	Class Presentation: To demonstrate the concepts used in the health economics	To recognise the issues in the interactions of supply and demand in health care days	To produce Disability Free Life Expectancy (DFLE)	(c) Community financing – (d) Out of pocket Payment and (e) User fee(g) External sources of finance	To know the provider payment methods - Hospital Payment Method - Contracting
S-6	SLO-1	To outline the actors and institutions in health care-	To understand about the supplier induced demand	Class Presentation: To demonstrate (i) Trends in DALY for India	Class Presentation: To illustrate Trends in the types of healthcare financing	To understand the effect of payment systems on patients
S-7	SLO-1	Informational asymmetry and concept of agency	Class Presentation: Demand and supply in healthcare in India and its determinants	Class Presentation: (ii) Disparities in DALY by sub-population (iii) DALY by causes	To explain the Contracting in - contracting out	Discussion: To demonstrate the health financing models by different countries
S-8	SLO-1	Class test/Internal assignment submission	Class test/Internal assignment submission	Class test/Internal assignment submission	Class test/Internal assignment submission	Class test/Internal assignment submission

Learning Resources	1. Guinness, D., & Wiseman, V, 2011, “Introduction to health economics” (2nd ed) Berkshire: Open University Press. 2. Dakin, H, Devlin, N, Feng, Y, Rice, N, O'Neill, P, and Parkin, D., 2015, “The Influence of Cost-Effectiveness and Other Factors on NICE Decisions” Health Economics, 24, 1256–1271. doi: 10.1002/hec.3086. 3. Drummond, M.F., Sculpher, M.J., Claxton, K., Stoddart, G.L. and Torrance, G.W., 2015, “Methods for the Economic Evaluation of Health Care Programmes”, Oxford University Press 4. Murray, Christopher J L et al, 2012, “Disability-adjusted life years (DALYs) for 291 diseases and injuries in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010”, The Lancet, Volume 380, Issue 9859, 2197 – 2223 4. 5. Mauskopf J., Rutten F, Schonfeld W., 2003, Cost-Effectiveness League Tables: Valuable Guidance for Decision Makers? Pharmaco Economics, 21:991-1000

Learning Assessment

Level	Bloom's Level of Thinking	Continuous Learning Assessment (50% weightage)				University Examination (50% weightage)	
		CLA – 1 (25%)		CLA – 2 (25%)			
		Theory	Practice	Theory	Practice	Theory	Practice
1	**Remember**	40%	-	40%	-	40%	-
2	**Understand**						
3	**Apply**	40%	-	40%	-	40%	-
4	**Analyze**						
5	**Evaluate**	20%	-	20%	-	20%	-
6	**Create**						
	Total	100 %		100 %		100 %	

Course Designers

Experts from Industry	Experts from Higher Technical Institutions	Internal Experts
1. Mr. Jaykrishnan Menon, Applied Wonder, Bangalore 2. Dr. Mohan.V, MD, PhD Mohan Diabetes Research Foundation, Chennai	1. Prof D. Narayana, India Health Economics and Policy Association (IHEPA), narayanadelampady@gmail.com 2. Dr. Godwin S K, University of Kerala & IHEPA, godwinsk@yahoo.com	Dr. Benson Thomas, Assoc Professor, SRMIST

Course Code	PH23310T	Course Name	Budget analysis and economic evaluation	Course Category	PE	Professional Elective	L	T	P	C
							3	2	0	5

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department		School of Public Health	Data Book / Codes/Standards	Nil	

Course Learning Rationale (CLR):	The purpose of learning this course is to:	Learning			Program Learning Outcomes (PLO)														
CLR-1:	Describe the concepts such as OOPE, Catastrophic Payment, Distress finance etc. with healthcare expenditures	1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CLR-2:	Familiarize with India and state budgets, allocation and expenditure pattern to healthcare components	Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)	Disciplinary Knowledge	Critical Thinking	Problem Solving	Analytical Reasoning	Research Skills	Teamwork	Scientific Reasoning	Reflective Thinking	Self-Directed Learning	Multicultural Competence	Ethical Reasoning	Community Engagement	ICT Skills	Leadership Skills	Life Long Learning
CLR-3:	Describe budgets (central and state) and impart the knowledge about specific components such as gender budget																		
CLR-4:	Illustrate various economic evaluation techniques such as CBA, CEA, CUA etc.																		
CLR-4:	Describe government spending and its impacts																		
Course Learning Outcomes (CLO):	At the end of this course, learners will be able to:																		
CLO-1:	Understand the concepts such as OOPE, Catastrophic Payment, Distress finance etc. with healthcare expenditures	3	95	85	H	H	M	H	H	H	H	H	H	H	M	H	M	H	H
CLO-2:	Familiarize with India and state budgets, allocation and expenditure pattern to healthcare components	3	90	80	H	H	M	H	H	H	H	H	H	H	M	H	M	H	H
CLO-3:	Understand budget and its healthcare and healthcare related components	3	90	80	H	H	M	H	H	H	H	H	H	H	M	H	M	H	H
CLO-4:	Practical knowledge various economic evaluation techniques such as CBA, CEA, CUA etc.	3	90	80	H	H	M	H	H	H	H	H	H	H	M	H	M	H	H
CLO-5:	Understand government spending and its impacts	3	90	80	H	H	M	H	H	H	H	H	H	H	M	H	M	H	H

Duration (hour)		Healthcare Expenditure (12)	Budget (12)	Gender Budgeting (12)	Economic Evaluations (12)	Budget Impact Analysis (12)
S-1	SLO	Define the Concept of Healthcare Expenditure – Public and Private Healthcare Expenditure	Concept of Budget - Describe various types of Budgets	Describe about Gender Budget	Describe- Economic Cost Benefit Analysis (CBA) - Concept – Merits - Limitation	Discuss about Equity in Health
S-2	SLO	Explain about Out-of-of pocket expenditure and measurement	Explain the Importance of Public Healthcare Budgets	Meaning and Concept	Steps to perform the CBA	Discuss about the global health expenditure and healthcare equity
S-3	SLO	Discuss about Catastrophic Expenditure and distress financing	Discuss about the Component of Indian Healthcare Budget	Describe Gender Development Index	Discuss – Cost Effective Analysis (CEA): Concepts, Merits and Limitations	Explain about the role of finance commission and NITI Ayog in Health
S-4	SLO	Explain the concept of healthcare financing – Public and Private healthcare financing	Discuss about budget components - Medical and Public Health, Family Welfare	Discuss about Gender Inequality Index	Steps to perform CEA	Describe Budget Incident Analysis
S-5	SLO	Discuss about inequalities in healthcare use and expenditures (1/2)	Discuss budget components - Water and Sanitization, Nutrition	Explain the importance of Gender Budgeting	Describe – Cost Utility Analysis (CUA) – Concepts, Merits and Limitations	Concept, Steps to perform BIA
S-6	SLO	Discuss about inequalities in healthcare use and expenditures (2/2)	Explain Types of Public Healthcare Accounts – Capital and revenue Accounts	Class Presentation – Gender Budget in India (1/2)	Steps to Perform CUA	Describe about Budget Impact Analysis -Concept and performance
S-7	SLO	Class presentation: inequalities in healthcare use and expenditures in India (1/2)	Class Presentation – Trends in Public Healthcare Expenditure in India	Class Presentation – Gender Budget in India (2/2)	Explain about Cost Minimization Analysis (CMA)	Class test/Internal assignment submission (1/2)
S-8	SLO	Class presentation: inequalities in healthcare use and expenditures in India (2/2)	Class Presentation – Trends in the Public Healthcare Expenditure in States	Class test/Internal assignment submission	Class Presentation – Various methods of economic analysis	Class test/Internal assignment submission (2/2)

Learning Resources

1. Tyagi B.P “Public Finance,” Jai Prakash Natu & Co, Meerut,7th Edition,1994.
2. Srivastava D.K., “Issues in Indian Public Finance,” New Century Publications,2005.
3. Stostsky, J G, Zaman, A (2016) The Influence of Gender Budgeting in Indian States on Gender Equality and Fiscal Spending, IMF Working Paper
4. Chakraborty, L (2016) Asia: A Survey of Gender Budgeting, IMF Working Paper
5. Ashok, K. Chakraborty LS, Bhattacharrya PN (2005), Gender Budgeting in India, United Nations Fund for Women, South Asia, Regional Office
6. WHO (2013), The Economics of Social Determinants of Health and Health Inequalities: A resource book
7. Papanicolas,I Cylus, J. Smith, PC (2016) Health System Efficiency: How to make measurement matter for policy and management, World Health Organisation, Geneva
8. Aday LA, Begley CE, Lairson DR, Balkrishnan R (2004) Evaluating the Healthcare System: Effectiveness, Efficiency and Equity
9. Sculpher M ‘Economic Evaluation’ in Fulop N et.al (eds) Studying the organization and delivery of health services: Research Methods, London: Routledge 2001

Learning Assessment							
Level	Bloom's Level of Thinking	Continuous Learning Assessment (50% weightage)				University Examination (50% weightage)	
		CLA – 1 (25%)		CLA – 2 (25%)			
		Theory	Practice	Theory	Practice	Theory	Practice
1	Remember	40%	-	40%	-	40%	-
2	Understand						
3	Apply	40%	-	40%	-	40%	-
4	Analyze						
5	Evaluate	20%	-	20%	-	20%	-
6	Create						
	Total	100 %		100 %		100 %	

Course Designers		
Experts from Industry	Experts from Higher Technical Institutions	Internal Experts
1. Dr. Francis Zavier, Population Council, New Delhi. fzavier@popcouncil	1. Dr. Godwin S K, University of Kerala & IHEPA, godwinsk@yahoo.com	1. Dr D Narayana, Adj Professor, SRMIST 2. Dr. Benson Thomas, Assoc Professor, SRMIST

Course Code	PH23311T	Course Name	Environmental Health Risk Assessment	Course Category	PE	Professional Elective	L	T	P	C
							3	2	0	5

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department		School of Public Health	Data Book / Codes/Standards	Nil	

Course Learning Rationale (CLR):	The purpose of learning this course is to:	Learning			Program Learning Outcomes (PLO)														
CLR-1:	Understand the process and fundamental steps involved in conducting a health risk assessment	1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CLR-2:	Develop exposure assessment strategies for health risk assessment and epidemiological studies	Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)	Disciplinary Knowledge	Critical Thinking	Problem Solving	Analytical Reasoning	Research Skills	Teamwork	Scientific Reasoning	Reflective Thinking	Self-Directed Learning	Multicultural Competence	Ethical Reasoning	Community Engagement	ICT Skills	Leadership Skills	Life Long Learning
CLR-3:	Evaluate a particular hazard's potential effects on public health while taking into consideration its varying sensitivities, uncertainties, and other factors																		
CLR-4:	Apply risk assessment methods to assess the health impact of exposure to environmental stressors																		
CLR-4:	Understand how social and cultural values shape perceptions and communication of environmental risks																		
Course Learning Outcomes (CLO):	At the end of this course, learners will be able to:																		
CLO-1:	Describe the procedures for carrying out a health risk assessment	1	95	85	H	-	-	-	-	-		-		-	-	-	-	-	-
CLO-2:	Identify and create appropriate exposure assessment methods for epidemiological research and health risk assessment	1	90	85	M	-	-	-	-	M	L	-	H	-	-	L	-	-	L
CLO-3:	Examine a specific hazard's possible impact on public health	2	90	85	M	L	L	M	L	L	H	H	H	-	L	-	-	-	L
CLO-4:	Utilize risk assessment techniques to evaluate the impacts of environmental hazard exposure on health.	2	90	85	H	L	L	M	L	L	H	-	H	-	L	-	-	-	L
CLO-5:	Plan risk communication to the community involved	3	90	75	H	L	L	M	H	M	H	H	H	-	-	H	-	-	L

Duration (1.5 hour)		Health Risk Assessment	Hazard Identification	Exposure Assessment	Risk Characterization	Risk Communication
S-1	SLO	Understanding Risk Assessment – Introduction, types and Frameworks	Identification of hazards – Introduction	Understanding of Terminologies used in exposure assessment	Risk characterization - Introduction	Risk perception and risk communication in the context of community engagement
S-2	SLO	Illustrate Risk assessment models – Methods and approaches	Explain Dose–response assessment	Planning an exposure assessment	Key principles in environmental health risk characterization	Risk communication – things to know and things to avoid
S-3	SLO	Describe Stages of environmental health risk assessment (EHRA)	Understand the prime role of animal studies in risk assessment	Approaches to quantifying exposures	Quantitative and qualitative risk characterization	Risk communication – understanding conflicts
S-4	SLO	Environmental health risk assessment and health impact assessment	Illustrate dose-response modeling	Demonstrate the Issues in exposure assessments	Risk estimation	Planning risk communication
S-5	SLO	Evaluating risk assessment methods	Discuss hazard identification in different scenarios	Exposure assessment calculations	Combining risk estimates	Preparing EHRA report
S-6	SLO	Identifying and describing issues within existing environmental conditions	Carcinogen Vs non carcinogen	Case study- Discussion	Guidance on selecting sources of toxicological data and environmental health criteria	EHRA – review and appraise
S-7	SLO	Identifying susceptible populations and exposure pathways	Carcinogens – identification and assessment, quantification	Sources of exposure assessment data.	Bio monitoring and microbiological risk assessment	National and international programs
S-8	SLO	EHRA – Case study	Environmental sampling and analysis	Exposure Assessment – Practical – Sample data - Problem solving	Case study - Discussion	Risk communication examples- Activity

Learning Resources	1. Risk Assessment for Environmental Health, 2nd Edition, By Mark G. Robson, William A. Toscano, Qingyu Meng, Debra A. Kaden, Published December 30, 2022 by CRC Press 2. Exposure Assessment in Environmental Epidemiology (2 edn) , By Mark J. Nieuwenhuijsen (ed.) Published: June 2015. https://doi.org/10.1093/med/9780199378784.001.0001 3. Environmental Risk Communication, Principles and Practices for Industry By Susan Zummo Forney, Anthony J. Sadar, Published May 31, 2023 by CRC Press 4. Fundamentals of Environmental and Toxicological Chemistry, Sustainable Science, Fourth Edition, By Stanley E. Manahan. Published April 10, 2013

Learning Assessment							
Level	Bloom's Level of Thinking	Continuous Learning Assessment (50% weightage)				University Examination (50% weightage)	
		CLA – 1 (25%)		CLA – 2 (25%)			
		Theory	Practice	Theory	Practice	Theory	Practice
1	Remember	40%	-	40%	-	40%	-
2	Understand						
3	Apply	40%	-	40%	-	40%	-
4	Analyze						
5	Evaluate	20%	-	20%	-	20%	-
6	Create						
	Total	100 %		100 %		100 %	

Course Designers		
Experts from Industry	Experts from Higher Technical Institutions	Internal Experts
1. Mr.Girish Raghav, Plant Operations Lead, Mawaad Environmental Services, United Arab Emirates	1. Dr.K.Elangovan, DDG, DGFASLI, Govt.of India	1. Dr Dhivya K, SRM IST

Course Code	PH23312T	Course Name	Geo-spatial Technologies in environmental health	Course Category	PE	Professional Elective	L	T	P	C
							3	2	0	5

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department		School of Public Health	Data Book / Codes/Standards	Nil	

Course Learning Rationale (CLR):	The purpose of learning this course is to:	Learning			Program Learning Outcomes (PLO)														
CLR-1:	Describe various GIS techniques within spatial analytical framework and handle spatial and non-spatial database	1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CLR-2:	Obtain understating about coordinate systems, differential positioning concepts	Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)	Disciplinary Knowledge	Critical Thinking	Problem Solving	Analytical Reasoning	Research Skills	Teamwork	Scientific Reasoning	Reflective Thinking	Self-Directed Learning	Multicultural Competence	Ethical Reasoning	Community Engagement	ICT Skills	Leadership Skills	Life Long Learning
CLR-3:	Understand the physical principles and sensing process in remote sensing																		
CLR-4:	Utilize knowledge to differentiate type of sensors, characteristics and different data acquisition techniques.																		
CLR-4:	Utilize geospatial techniques for environmental health risk assessment and risk reduction																		
Course Learning Outcomes (CLO):	At the end of this course, learners will be able to:																		
CLO-1:	Understand various GIS and navigation tools and techniques to handle spatial and non-spatial database	1	95	85	L	-	-	-	-	-		-		-	-	-	H	-	-
CLO-2:	Explain various datums, coordinate systems, differential positioning concepts	1	90	85	M	-	-	-	-	-	L	-	H	-	-	-	H	-	L
CLO-3:	Explain the physical principles and sensing process in remote sensing	2	90	85	M	M	M	-	M	L	H	H	H	L	-	-	H	-	L
CLO-4:	Differentiate the type of sensors, characteristics and different data acquisition techniques.	2	90	85	H	M	M	-	M	L	H	-	H	L	-	-	H	-	L
CLO-5:	Apply integrated geospatial techniques in disaster management and disaster risk reduction	3	90	75	H	H	H	-	H	L	H	H	H	L	-	-	H	-	L

Duration (1 hour)		Geographical Information System (8)	Spatial Data visualization and Analysis (8)	Remote sensing - Basics (8)	Data Acquisition (8)	Risk management (8)
S-1	SLO	Global Information System – Introduction, Principles	Cartography – Type of Maps	Basic concepts of Remote Sensing – History and Development	Understanding Satellites, Sensors and Specifications	Basic concepts of Hazard Evaluation, Zonation
S-2	SLO	Basic concepts of spatial data and non-spatial data representation	Understanding of Coordinate system	Electromagnetic Radiation (EMR) and Its Characteristics	Concepts related to Weather Satellites	Basics of Land use planning
S-3	SLO	Spatial data– Raster and Vector data	symbolization in Maps – Visual variables and color	Wavelength Regions and Wavelength Significance	Screen transformations of Raster and Vector Data	Performing Risk Assessment - Practical
S-4	SLO	Understanding data structures and file format - QGIS	Spatial data Analysis –Basic Functions	Conceptualization of Interaction of EMR with Atmosphere and Earth's Surface	Satellite imagery and geospatial datasets - Acquisition	Case Study Discussion
S-5	SLO	In depth understanding of Vector and raster Data & its Representation	Application of Spatial analysis	Absorption in the context of Interaction of EMR with Atmosphere and Earth's Surface	Data acquisition - Practical	Exposure Assessment - Practical
S-6	SLO	Illustrate Problems with spatial data	Spatial Data – Measurements and Transformations	Atmospheric Windows and Energy Balance Equation	Understanding basics of digitizing	Exposure Assessment - Practical
S-7	SLO	Importance of geospatial data and analysis in disaster management	QGIS – Measurement options, Application and example	Resolution, Spectral Response and Spectral Signature	Remote sensing data – Preprocessing requirements	Spatial applications for Risk Management
S-8	SLO	Geocoding Issues and challenges	Case study - Practical	Application of Remote sensing data	Case study – Discussion - Practice	Case study Discussion

Learning Resources	
	1. Lillesand, Thomas M. and Kiefer, Ralph, W., "Remote Sensing and Image Interpretation", 4th Edition, John Wiley and Sons, New York, 2007 2. George Joseph & C. Jeganathan, Fundamentals of Remote Sensing 3rd edition, Universities Press, India, 2018 3. GIS for Environmental Applications: A practical approach Paperback (7 June 2016) by Xuan Zhu, Publisher : Routledge; 1st edition 4. GIS for Environmental Applications: A practical approach Paperback (7 June 2016) by Xuan Zhu, Publisher : Routledge; 1st edition

Learning Assessment							
Level	Bloom's Level of Thinking	Continuous Learning Assessment (50% weightage)				University Examination (50% weightage)	
		CLA – 1 (25%)		CLA – 2 (25%)			
		Theory	Practice	Theory	Practice	Theory	Practice
1	Remember	40%	-	40%	-	40%	-
2	Understand						
3	Apply	40%	-	40%	-	40%	-
4	Analyze						
5	Evaluate	20%	-	20%	-	20%	-
6	Create						
	Total	100 %		100 %		100 %	

Course Designers		
Experts from Industry	Experts from Higher Technical Institutions	Internal Experts
1. Dr.Manikanda Bharathi, Business Development Manager, GEMS Tamil Nadu	1. Dr S.Sanjeevi Prasad, Associate Professor, sanjeevi.geo.unom@gmail.com	1. Dr Vignesh KS, SRM IST 2. Dr Dhivya K, SRM IST

Course Code	PH23313T	Course Name	Strategic communication and designing health campaigns	Course Category	PE	Professional Elective	L	T	P	C
							3	2	0	5

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department		School of Public Health	Data Book / Codes/Standards	Nil	

Course Learning Rationale (CLR):	The purpose of learning this course is to:	Learning			Program Learning Outcomes (PLO)														
CLR-1:	Describe the theories and concepts in Health Communication.	1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CLR-2:	Understand role of context in changing social norms and improving communication	Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)	Disciplinary Knowledge	Critical Thinking	Problem Solving	Analytical Reasoning	Research Skills	Teamwork	Scientific Reasoning	Reflective Thinking	Self-Directed Learning	Multicultural Competence	Ethical Reasoning	Community Engagement	ICT Skills	Leadership Skills	Life Long Learning
CLR-3:	Behavior Change Communication - Basics																		
CLR-4:	Develop a campaign for behavior change																		
CLR-4:	Understand the role of strategic communication in Health protection																		
Course Learning Outcomes (CLO):	At the end of this course, learners will be able to:																		
CLO-1:	Understand about theories of public health communication	3	95	85	H	H	M	H	H	H	H	H	H	H	M	H	M	H	H
CLO-2:	Have knowledge about strategies to change behaviors based on evidence	3	90	80	H	H	M	H	H	H	H	H	H	H	M	H	M	H	H
CLO-3:	Understand the role of behavior in Health	3	90	80	H	H	M	H	H	H	H	H	H	H	M	H	M	H	H
CLO-4:	Conceptual clarity on role of strategic communication in social change	3	90	80	H	H	M	H	H	H	H	H	H	H	M	H	M	H	H
CLO-5:	Conceptual clarity of deriving and identifying indicators for Social Change	3	90	80	H	H	M	H	H	H	H	H	H	H	M	H	M	H	H

Duration (hour)		Concepts in health communication/ Crafting Campaign (12)	Campaign Designing (12)	Campaign channels (12)	Campaign Implementation (12)	Case Study and Presentation (12)
S-1	SLO	Define the Concept Health Communication	Situation Analysis # 1 Case Study	Barriers and Facilitators of Change	Creative Messaging: Activity	Formative or baseline evaluation: Secondary data or conduct research for primary data Log Frame: IPO model
S-2	SLO	Evolution of Health Communication	Situation Analysis # 2 Case Study	Developing communication Objectives	Concept, Field Testing	Mid-point evaluations: Process Evaluation.
S-3	SLO	Basics of Strategic communication in Health	Layers of Cause and Effect	Channel Activity and Material Mix	Drafting and Reviewing materials	Summative evaluation to compare outputs and outcomes with baseline measures
S-4	SLO	SLO -1	Role of the Government in information dissemination about health &healthcare	Activity: Layers of Cause and Effect	Refinement of the Communication Strategy	Overview of implementation plans
S-5	SLO	Sood S, Shefner-Rogers C, Skinner J. Health communication campaigns in developing countries. Journal of creative communications. 2014 Mar;9(1):67-84.	Communication Strategy Overview	Getting ready to create	Implementation planning: Gantt Chart	Team Work: Effective Campaigns in India and Globally – A review and discussion
S-6	SLO	Discussion:	Communication Strategy Exercise	Getting ready to create: Activity	Planning activities: Stakeholder Meetings	AIDS campaign
S-7	SLO -1	Hagg E, Dahinten VS, Currie LM. The emerging use of social media for health-related purposes in low and middle-income countries: A scoping review. International journal of medical informatics. 2018 Jul 1;115:92-105.	Developing Communication Objectives	Creative Briefs: An introduction / Creative brief	Planning activities: Team Meetings	Smoke Free Tobacco Campaigns

S-8	SLO -1	Discussion	Strategic Approach and Positioning	Effective Messages: An overview / Creating Effective Message	Indicators for Monitoring SBCC activities	
S-9	SLO -1	Basics of Campaign Creation (WHO Guide)	Audience Segmentation	Drafting and Reviewing materials / Concept, Field Testing	Monitoring plan for SBCC campaigns	Presentation of Campaign Strategy and Campaign
S-10	SLO -1	Learning about, and practicing development, of SOCOS – Single Overarching Communication Outcome that you want to archive Defining and mapping your target audience • Developing key messages for your SOCO • Tools and tactics for creating a campaign	Audience Segmentation: Activity	Display of activities and presentation	Budgeting for SBCC Discussion of Budget Line items	
S-11	SLO -1	People Analysis activity	Activity: Audience Segmentation for their research Problem	Mid Term Exams	Example of a budget and discussion	Feedback of the program
S-12	SLO -1	Formative Research Gaps				

Learning Resources	1. Adapting Materials for Audiences with Lower Literacy Skills. Washington, DC: FHI 360/C-Change. 2. National Cancer Institute. 1989. Making health communications work: A planner's guide. Rockville, MD.: U.S. Department of Health and Human Services 3. O'Sullivan, Gael, Joan Yonkler, Win Morgan, and Alice Payne Merritt. 2003. A field guide to designing a health communication strategy. Baltimore: Johns Hopkins Bloomberg School of Public Health/Center for Communications Programs. 4. Smith, Bill and John Strand. 2008. Social Marketing Behavior: A Practical Resource for Social Change Professionals. Washington, DC: AED.

Learning Assessment							
Level	Bloom's Level of Thinking	Continuous Learning Assessment (50% weightage)				University Examination (50% weightage)	
		CLA – 1 (25%)		CLA – 2 (25%)			
		Theory	Practice	Theory	Practice	Theory	Practice
1	Remember	40%	-	40%	-	40%	-
2	Understand						
3	Apply	40%	-	40%	-	40%	-
4	Analyze						
5	Evaluate	20%	-	20%	-	20%	-
6	Create						
	Total	100 %		100 %		100 %	

Course Designers		
Experts from Industry	Experts from Higher Technical Institutions	Internal Experts
1. Dr. Sugata Roy	1. Dr. Sunitha Kuppuswamy	1. Geetha Veliah

Course Code	PH23314T	Course Name	Media analysis and evaluating health promotion interventions	Course Category	PE	Professional Elective	L	T	P	C
							3	2	0	5

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department		School of Public Health	Data Book / Codes/Standards	Nil	

Course Learning Rationale (CLR):	The purpose of learning this course is to:	Learning			Program Learning Outcomes (PLO)														
CLR-1:	Understand the role of Media in Health Literacy	1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CLR-2:	Understand the context of various media in spreading Disinformation	Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)	Disciplinary Knowledge	Critical Thinking	Problem Solving	Analytical Reasoning	Research Skills	Teamwork	Scientific Reasoning	Reflective Thinking	Self-Directed Learning	Multicultural Competence	Ethical Reasoning	Community Engagement	ICT Skills	Leadership Skills	Life Long Learning
CLR-3:	Understand social listening in Public Health																		
CLR-4:	Appy tools for social listening																		
CLR-4:	Evaluate various portals for effective communication																		
Course Learning Outcomes (CLO):	At the end of this course, learners will be able to:																		
CLO-1:	In-depth knowledge on how media analysis and health intervention evaluation is conducted	3	80	75	H	M	M	H	H	H	L	M	H	M	H	H	M	H	H
CLO-2:	Understand the how media influences behavior	3	80	75	H	M	M	H	H	H	L	M	H	M	H	H	M	H	H
CLO-3:	Have knowledge about how disinformation is spread	3	80	75	H	M	M	H	H	H	L	M	H	M	H	H	M	H	H
CLO-4:	Understand the role of responsible journalism	3	80	75	H	M	M	H	H	H	L	M	H	M	H	H	M	H	H
CLO-5:	Social listening and its importance in Public Health Data Collection	3	80	75	H	M	M	H	H	H	L	M	H	M	H	H	M	H	H

Duration (hour)		Role of Media in Health Literacy /Disinformation (12)	Responsible Journalism (12)	Social Listening (12)	Tools for Media Analysis (12)	Evaluation of Health Promotion Interventions (12)
S-1	SLO -1	Define the Concept Health Literacy	The perils of misinformation: when health literacy goes awry: Peter J. Schulz 1 ✉ and Kent Nakamoto2,3: Review	Social Listening: What is SL?	Tools available for Media Analyis: Social Media Listening	RE-AIM Model: Basics of Health Promotion Evaluation
S-2	SLO -1	Importance of Health Literacy In LMICs	Approaches to Identify Fake News: A Systematic Literature Review Dylan de Beer and Machdel Matthee Review and discussion	What is Social monitoring?	https://www.youtube.com/watch?v=rjwEdYfABeU	Reach: Reporting on demographic characteristics - Comparison between participants in different study conditions and between those who stayed in the intervention and those lost to follow-up - Unknown as to the degree to which those in the intervention were similar to the target audience
S-3	SLO -1	Media: All types of Media	Ethical Journalism: What is?	What is Social Rage?	PEMAT Tools for Print Material	
S-4	SLO -1	Digital Media and the future	Principles of Ethical Journalism: Truth and Accuracy	https://www.youtube.com/watch?v=pTD78blbLdU	Activity with Print Material	Effectiveness The impact of an intervention on important outcomes, including potential negative effects, quality of life, and economic outcomes. “How do I know my intervention is effective?”
S-5	SLO -1	Conceptualizing “Critical Media Health Literacy”	The Ethics of Truth-Telling in Health-Care Settings Yusrita Zolkefli Reading Principles of Ethical Journalism: Independence	Discussion on Social Listening	PEMAT Tools for Video	Adoption: “How do I develop organizational support to deliver my intervention?”
S-6	SLO -1	Understanding TOHFLA/ REALM		https://blog.hubspot.com/service/social-listening-examples		
S-7	SLO -1	https://digitalcommons.uri.edu/cgi/viewcontent.cgi?article=1184&context=jmle	Principles of Ethical Journalism: Fairness and Impartiality Principles of Ethical	Strategy creation for effective social listening for Health Content in the Indian	PEMAT VIDEO - Activity	

S-8	SLO -1	Discussion regarding SMLscale	Journalism:Humanity	Context: Discussion		Implementation: At the individual level, implementation refers to clients' use of the intervention and implementation strategies. "How do I ensure the intervention is delivered properly
S-9	SLO -1	Understanding Misinformation	Principles of Ethical Journalism: Accountability	Social Listening as Social Diagnosis or needs assessment?	Using Sentiment Analysis in Social media	Maintenance: The extent to which: a) behavior is sustained 6 months or more after treatment or intervention; and b) a program or policy becomes institutionalized or part of the routine organizational practices and policies.
S-10	SLO -1	Understanding Disinformation	Case Study: Naming Survivors of Sexual Assault	Using Instagram and Facebook for better journalism		RE-AIM: Case study https://www.researchgate.net/publication/338070068_Adapting_and_Operationalizing_the_RE-AIM_Framework_for_Implementation_Science_in_Environmental_Health_Clean_Fuel_Cooking_Programs_in_Low_Resource_Countries/figures?lo=1
S-11	SLO -1	COVID-19 Misinformation Online and Health Literacy: A Brief Overview	Debate: should the name of the survivor be released to empower the person or keep it confidential to protect her?	Social network analysis: Learning and using in Healthcare	Understanding Ngrams and how we can track "phenomenon" on social media	
S-12	SLO -1	Group activity: Discussion / Debate				

Learning resources:

1. https://www.researchgate.net/publication/343795206_Social_listening_a_potential_game_changer_in_reputation_management_How_big_data_analysis_can_contribute_to_understanding_stakeholders%27_views_on_organisations
2. Social media analytics: a survey of techniques, tools and platforms Bogdan Batrinca • Philip C. Treleaven
3. https://www.who.int/health-topics/infodemic#tab=tab_1

Learning Assessment							
Level	**Bloom's Level of Thinking**	**Continuous Learning Assessment (50% weightage)**				**University Examination (50% weightage)**	
		CLA – 1 (25%)		**CLA – 2 (25%)**			
		Theory	**Practice**	**Theory**	**Practice**	**Theory**	**Practice**
1	**Remember**	40%	-	40%	-	40%	-
2	**Understand**						
3	**Apply**	40%	-	40%	-	40%	-
4	**Analyze**						
5	**Evaluate**	20%	-	20%	-	20%	-
6	**Create**						
	Total	100 %		100 %		100 %	

Course Designers		
Experts from Industry	**Experts from Higher Technical Institutions**	**Internal Experts**
Dr. Sugata Roy	Dr. Sunitha Kuppuswamy	Ms. Geetha Veliah

Course Code	PH23401P	Course Name	Dissertation	Course Category	P	Project/ Research/Internship	L	T	P	C
							0	0	10	5

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department		School of Public Health	Data Book / Codes/Standards	Nil	

Course Learning Rationale (CLR):	The purpose of learning this course is to:	Learning		
		Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)
CLR-1:	Identify a research problem and conduct review of literature	1	2	3
CLR-2:	Formulate the hypotheses and finalize the study designs			
CLR-3:	Familiar with various ethical issues in public health research			
CLR-4:	Execute the methods of data collection in field			
CLR-5:	Analyze data, interpret the results and write research report			

Course Learning Outcomes (CLO):	At the end of this course, learners will be able to:	Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)	Program Learning Outcomes (PLO)														
					1 Disciplinary Knowledge	2 Critical Thinking	3 Problem Solving	4 Analytical Reasoning	5 Research Skills	6 Teamwork	7 Scientific Reasoning	8 Reflective Thinking	9 Self-Directed Learning	10 Multicultural Competence	11 Ethical Reasoning	12 Community Engagement	13 ICT Skills	14 Leadership Skills	15 Life Long Learning
CLO-1:	Identify a research problem and conduct review of literature	4	85	80	H	H	H	M	H	H	H	H	M	M	M	M	M	H	H
CLO-2:	Formulate the hypotheses and finalize the study designs	5	80	80	H	H	H	M	H	H	H	H	H	H	M	H	M	M	H
CLO-3:	Familiar with various ethical issues in public health research	5	85	80	H	H	H	H	H	H	H	H	M	M	H	H	M	H	M
CLO-4:	Execute the methods of data collection in field	6	80	80	H	H	M	M	H	H	H	H	M	M	H	H	M	H	H
CLO-5:	Analyze data, interpret the results and write research report	5	80	80	H	H	M	H	H	H	H	H	H	H	H	H	M	H	H

Learning Assessment		
Dissertation	Final Evaluation – Fully Internal (100% weightage)	
	Dissertation Report	Viva-Voce
	50%	50%

Course Designers		
Experts from Industry	**Experts from Higher Technical Institutions**	**Internal Experts**
1. Dr Nirmala Murthy, FRHS	1. Dr. R. Thilagavathi, M.Sc, Ph.D, Scientist-C, NCDIR, Bangalore	1. Dr Hari Singh 2. Dr Alex Joseph 3. Dr Kalpana B

Course Code	PH23402P	Course Name	Internship	Course Category	P	Project/ Research/ Internship	L	T	P	C
							0	0	30	15

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department		School of Public Health	Data Book / Codes/Standards	Nil	

Course Learning Rationale (CLR):	The purpose of learning this course is to:	Learning		
		Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)
CLR-1:	Facilitate students to get acquainted with the governmental and non-governmental organization working for holistic healthcare and development of communities	1	2	3
CLR-2:	Facilitate students to understand various public health programs, interventions and strategies adapted by the organization in empowering people for their development			
CLR-3:	Apply the principles of epidemiology and health service management in field settings			
CLR-4:	To educate students to assess community health needs and problems			
CLR-5:	To explore to possibilities of placement and career progression			

Course Learning Outcomes (CLO):	At the end of this course, learners will be able to:	Learning			Program Learning Outcomes (PLO)														
		Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)	Disciplinary Knowledge	Critical Thinking	Problem Solving	Analytical Reasoning	Research Skills	Teamwork	Scientific Reasoning	Reflective Thinking	Self-Directed Learning	Multicultural Competence	Ethical Reasoning	Community Engagement	ICT Skills	Leadership Skills	Life Long Learning
		1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CLO-1:	Get acquainted with agencies working on healthcare and development of communities	4	85	80	H	H	H	M	H	H	H	H	M	M	M	M	M	H	H
CLO-2:	Demonstrate the ability to assess the healthcare needs of communities	5	80	80	H	H	H	M	H	H	H	H	H	H	M	H	M	M	H
CLO-3:	Apply appropriate strategies and approach to empower holistic healthcare of communities	5	85	80	H	H	H	H	H	H	H	H	M	M	H	H	M	H	M
CLO-4:	Demonstrate the analytical and problem-solving skills in relation to the communities and problems	6	80	80	H	H	M	M	H	H	H	H	M	M	H	H	M	H	H
CLO-5:	Demonstrate the required professional competency in getting placement in reputed organizations	5	80	80	H	H	M	H	H	H	H	H	H	H	H	H	M	H	H

Internship Orientation

1. The internship will be for a period of five months from January to May during in the fourth semester.
2. The students are required to join the organization of their internship in first week of January, and submit a joining report via email to their mentor and to the office.
3. During the internship, the allotted mentor will be the internal supervisor for the students during their internship and the reporting authority of internship organization will be the external supervisor.
4. Every month students required to submit a monthly progress report by 5th of every month (1- 3 pages in pdf format) through email duly signed by the external supervisor to their respective mentors. These monthly reports will be reviewed and evaluated.
5. On completion of the internship period, the students will make a presentation of internship work, which will be held on the last 2 weeks of June and they will submit a final internship report.
6. The final presentation should include the following: About the organization: vision, mission, organizational structure - manpower, various projects/ activities of the organization, sources of funds. About your role, the project you were involved – project design, objectives, project team, interventions, your experience, results etc.
7. The students will submit a final internship report in the month of June (Refer below guidelines for the same) to the respective mentors and get their approval.
8. The presentation will be followed by a viva voce evaluated by internal and external examiners.

Format for Monthly Progress Report of Internship (To be submitted only in the first month report)

- About the Organization
- Name and address of the organization, and website link
- Who established the organization and when
- Vision and mission
- How large is the office? Spread out of the organization – other offices and outreach
- Manpower: Categories of staff, and number of people in each category
- Organogram
- Source of funding – it can vary in different projects
- Major projects of the organization

Format for reporting subsequent months

- Project in which the student is involved
- Explain the project – source of funding, staffing and organogram, aim and objectives, strategy, activities, deliverables
- Student's role in the project
- Type of engagement - field work or desk work or both? Explain briefly
- Describe the activities and the daily routine
- Supervisors, other colleagues and interns in the same project
- Any software used during the internship? Explain
- Any new learning? Explain
- Name MPH/ MSc modules/courses or topics that the students found helpful in their work during internship? Explain

Guidelines for the Internship Final Report

- Student will send preliminary report, one week before the final internship presentation as soft copy through mail in pdf format to the mentor for review.
- Final report as a hard copy to be submitted within a day after the final internship presentation with the mentor's signature to the office. The final report should be printed on ordinary computer paper and hard-bound, including all annexures following the specifications. The final draft should incorporate all suggestions of the internal and external examiners.

Learning Assessment							
Internship	**Continuous Learning Assessment (50% weightage)**					**Final Evaluation (50% weightage)**	
	Review 1	Review 2	Review 3	Review 4	Review 5	Internship Report	Viva-Voce
	10%	10%	10%	10%	10%	25%	25%

Course Designers		
Experts from Industry	**Experts from Higher Technical Institutions**	**Internal Experts**
1. Dr Nirmala Murthy, FRHS	1. Dr. R. Thilagavathi, M.Sc, Ph.D, Scientist-C, NCDIR, Bangalore	1. Dr Hari Singh 2. Dr Alex Joseph

Course Code	VACSPH07	Course Name	Interview Skills and CV writing	Course Category	VAC	Value added course	L	T	P	C
							1	0	0	0

Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil
Course Offering Department	School of Public Health	Data Book / Codes/Standards	Nil		

Course Learning Rationale (CLR):	*The purpose of learning this course is to:*	Learning
CLR-1:	Understand interview and its types	1
CLR-2:	Understand how to prepare for interviews	2
CLR-3:	Understand how to conduct during the interviews	3
CLR-4:	Understand what needs to be done post-interview	
CLR-5:	Understand how to prepare a professional CV	

Course Learning Outcomes (CLO):	*At the end of this course, learners will be able to:*	Level of Thinking (Bloom)	Expected Proficiency (%)	Expected Attainment (%)
CLO-1:	Understand interview and its types	3	85	80
CLO-2:	Understand how to prepare for interviews	3	85	80
CLO-3:	Understand how to conduct during the interviews	3	85	80
CLO-4:	Understand what needs to be done post-interview	3	85	80
CLO-5:	Prepare a professional CV and cover letter for job application	3	85	80

Program Learning Outcomes (PLO)															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Disciplinary Knowledge	Critical Thinking	Problem Solving	Analytical Reasoning	Research Skills	Teamwork	Scientific Reasoning	Reflective Thinking	Self-Directed Learning	Multicultural Competence	Ethical Reasoning	Community Engagement	ICT Skills	Leadership Skills	Lifelong Learning	
H	L	-	-	M	H	-	H	M	-	H	M	L	M	H	
H	L	-	-	M	H	-	H	M	-	H	M	L	M	H	
H	L	-	-	M	H	-	H	M	-	H	M	L	M	H	
H	L	-	-	M	H	-	H	M	-	H	M	L	M	H	
H	L	-	-	M	H	-	H	M	-	H	M	L	M	H	

Duration (hour)		Interview and its types	Preparing for an interview	Conduct during an interview	After the interview	CV writing
		3	3	3	3	3
S-1	SLO	What is an interview?	Know yourself, your employer and industry	Preparation for in-person and virtual interviews (Telephonic and video interviews)	Sending a thank you note	Structure of a professional CV
S-2	SLO	One-to-one interviews and Group interviews	Practice communication skills and answering questions	Preparation for follow-up interviews	Follow up with the employer	Cover letter
S-3	SLO	Practicum:1-Public health job portals and job search	Practicum:1-Practice answering common interview questions	Practicum:2-In-person interview practicum	Responding to a job offer	Practicum:3-preparing a CV and cover letter Practicum:4-Linkedin profile

Learning Resources	1. The Complete Job Interview Preparation Work Book. ISBN: 9781466284043, 9781466284043. 2. The Resume Writing Guide: A Step-by-Step Workbook for Writing a Winning Resume, Wendy S. Enelow and Louise Kursmark, ISBN: 1570232568: 978-1570232565

Level	Blooms Levels of Thinking	Continuous Learning Assessment (100% Weightage)			
		CLA-1 (50%)		CLA-2 (50%)	
		Theory	Practice	Theory	Practice
1	Remember	40%	-	40%	-
2	Understand				
3	Apply	40%	-	40%	-
4	Analyze				
5	Evaluate	20%	-	20%	-
6	Create				
	Total	100%		100%	

Course Designers		
Experts from Industry	**Experts from Higher Technical Institutions**	**Internal Experts**
Dr. Vijayaprasad Gopichandran	Dr. Sumathi Rajesh	1. Ms. Geetha Veliah 2. Dr. Janmejaya Samal