RAMAIAH UNIVERSITY OF APPLIED SCIENCES

Programme Structure and Course Details of Master in Public Health (MPH) 2022-2026

Programme Code: 097

Registrar
M.S. Ramaiah University of Applied Sciences
Bangalore - 560 054

Faculty of Life and Allied Health Sciences
Department of Allied Health Sciences

Dean - Academics
M.S. Ramaiah University of Applied Sciences
Bangalore - 560 054

DEAN
Faculty of Life & Allied Health Sciences
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BANGALORE-560 054

Approved by the Academic Council at its 26th meeting held on 14 July 2022

University's Vision, Mission and Objectives

The M. S. Ramaiah University of Applied Sciences (MSRUAS) will focus on student-centric professional education and motivates its staff and students to contribute significantly to the growth of technology, science, economy and society through their imaginative, creative and innovative pursuits. Hence, the University has articulated the following vision and objectives.

Vision

MSRUAS aspires to be the premier university of choice in Asia for student-centric professional education and services with a strong focus on applied research whilst maintaining the highest academic and ethical standards in a creative and innovative environment.

Mission

Our purpose is the creation and dissemination of knowledge. We are committed to creativity, innovation and excellence in our teaching and research. We value integrity, quality and teamwork in all our endeavors. We inspire critical thinking, personal development and a passion for lifelong learning. We serve the technical, scientific and economic needs of our society.

Objectives

1. To disseminate knowledge and skills through instructions, teaching, training, seminars, workshops and symposia in Engineering and Technology, Art and Design, Management and Commerce, Health and Allied Sciences, Physical and Life Sciences, Arts, Humanities and Social Sciences to equip students and scholars to meet the needs of industries, business and society
2. To generate knowledge through research in Engineering and Technology, Art and Design, Management and Commerce, Health and Allied Sciences, Physical and Life Sciences, Arts, Humanities and Social Sciences to meet the challenges that arise in industry, business and society
3. To promote health, human well-being and provide holistic healthcare
4. To provide technical and scientific solutions to real life problems posed by industry, business and society in Engineering and Technology, Art and Design, Management and Commerce, Health and Allied Sciences, Physical and Life Sciences, Arts, Humanities and Social Sciences
5. To instill the spirit of entrepreneurship in our youth to help create more career opportunities in the society by incubating and nurturing technology product ideas and supporting technology-backed business
6. To identify and nurture leadership skills in students and help in the development of our future leaders to enrich the society we live in
7. To develop partnership with universities, industries, businesses, research establishments, NGOs, international organizations, governmental organizations in India and abroad to enrich the experiences of faculties and students through research and developmental programmes

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Faculty	Faculty of Life and Allied Health Sciences (FLAHS)
Department	Allied Health Sciences
Programme Code	097
Programme Name	Master in Public Health (MPH)
Dean of the Faculty	Dr Krishnamurthy Jayanna
Head of the Department	Dr. Tushar Shaw

1. **Title of the Award :**MPH
2. **Mode of Study :** Full-Time
3. **Awarding Institution/Body :** M.S. Ramaiah University of Applied Sciences, Bangalore (India)
4. **Joint Award :** --
5. **Teaching Institution :**Faculty of Life and Allied Health Sciences
   M.S. Ramaiah University of Applied Sciences, Bangalore (India)
6. **Date of Programme Specifications :** July 2022
7. **Date of Programme Approval by the Academic Council of MSRUAS :** July 2022
8. **Next Review Date** : June 2024
9. **Programme Approving Regulatory Body and Date of Approval--**
10. **Programme Accrediting Body and Date of Accreditation--**
11. **Grade Awarded by the Accreditation Body--**
12. **Programme Accreditation Validity--**
13. **Programme Benchmark**
14. **Background and Details of the Programme**

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14.1 Background and Need

Despite significant achievements over the years, public health challenges continue to daunt the governments and health authorities, both in India and elsewhere. Over the years, life span of people has risen; leading killers such as malaria, polio and measles have been controlled; we have seen reduction in the deaths of women and children all over the world. However, non-communicable disease such as cardio-vascular diseases, diabetes, cancers and mental health issues continue to affect in large scale, and India is no exception. In addition, epidemic outbreaks such as SARS, Ebola and more recently novel coronavirus (COVID-19) that quickly progress into global pandemics have huge implications for socio-economic development and progress of the nations. If these challenges are not effectively tackled with the right scientific tempo and public health approaches, these challenges have the potential to halt or even reverse the progress of the nations by several decades.

Public health is an essential component of a health system as it is responsible for reducing morbidities and mortalities by maintaining and improving health of population. India is ranked in the bottom quantile for overall Sustainable Development Goals (SDGs), which necessitates a

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well-trained and motivated health workforce. There is a recognized need to initiate and appropriately strengthen the public health education in the country in consort with considerable investment in public health. To address this, quality training is needed to create professionally trained public health workforce who can significantly contribute towards strengthening the Indian health system.

In 2012, the high level expert group for universal health coverage for India recommended strengthening of the health system by supporting postgraduate programmes in public health. Along with this, it has been iterated that the present health syllabi in the country are not abreast with the changing dynamics of public health, health policies, demographics and epidemiological transitions. Despite the undeniable need to strengthen India's health workforce, it can be argued that MPH programmes are currently undersubscribed. Furthermore, it is increasingly felt that the training of public health students at the post-graduate level are lacking explicitly as per the stated standardized competency framework that is tailor made for the Indian context. Therefore, increased clarity on the training and role of public health graduates in the Indian context would help institutions adjust their programmes and ensure graduates with required skill-sets, competencies, attitude and motivation.

MPH programmes being offered in India have witnessed a rapid expansion in the past two decades. Unfortunately, the supply and demand for public health graduates are not matched. Currently, there are 44 educational institutions offering MPH programme, out of which 26 are privately owned and 18 are in the public sector. Even though there is a recognized need to strengthen the public health workforce in India, there is no clearly defined career pathways for MPH graduates in the national public health system. This clearly implies that the institutions and public health bodies must collaborate to design and deliver MPH programmes to address the identified competencies. These competencies are the ones defined in consultation with the experts at national and international levels considering globalization and other factors.

Ramaiah University of Applied Sciences expresses its solidarity through building a competent and compassionate public health workforce through its Masters and Doctoral training programmes in Public Health. The MPH programme being offered under Ramaiah University of Applied Sciences has been developed in consultation with eminent global health and public health experts while drawing learning and experience from other successful courses both within the country and outside. The graduates will be offered exposure to many disciplines that contribute to the public health like health care, behavioral and social sciences, epidemiology, statistics, management, communication, environment, nutrition, ethics and public policy. This course will be particularly relevant for those who seek to respond to the public health challenges through developing and scaling up innovations in health care delivery, research and knowledge generation, and health administration, etc. The course will train the students to become dedicated, competent and ethical public health researchers, practitioners, and policymakers who meet society's need to prevent and ameliorate local, national, and global public health problems.

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14.2 Job Opportunities

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There are plenty of job opportunities that range from the public to private sector: government, private health care, non-governmental organizations, academia, research enterprises, and donor agencies. The course will address the needs of various roles of a public health cadre:

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designing, planning and implementing national health programmes; primary health care provision; health administration; monitoring, research and evaluation; advisory and policy level functioning, etc. The course will also prepare students to pursue focused specialized opportunities such as health communication, health economics, behavioral sciences, public health ethics, policy, etc. Depending upon the competency level, qualification, work experience and attitudes, plenty of opportunities are possible at the local, state, national, regional and global levels. Here are some common roles that a public health professional can potentially take up:

- Epidemiologist
- Health educators and community health workers
- Occupational health and safety specialist
- Social and community service managers
- Public health management analyst
- Health communication specialist
- Public relations officer
- Research scientist
- Health resource professional
- Professor/lecturer
- Senior technical specialist – public health
- Environmental health specialist
- Social worker cum counsellor
- Monitoring and evaluation specialist
- Public health advisor

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14.3 Unique features of MPH in RUAS

- Students are from diverse backgrounds that bring richness of perspectives and ideas which facilitate learning. We adopt innovative peer-driven and peer-centered learning methods as part of our pedagogy.
- The students are trained by experienced faculty from various disciplines such as community medicine, public health dentistry, public health nursing, clinical specialty, social work, engineering and technology, integrative medicine, management, etc.
- RUAS faculty has excellent engagement with eminent global health platforms of University of Illinois, U.S.A and University of Manitoba, Canada, thus bringing their global health expertise to the teaching.
- Excellent networking opportunities through industrial visits, conferences, symposium, workshops and internships

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- Strong collaborations with health organizations, policy centers, medical settings, public health centers and hospitals
- Competency-based and research-driven curriculum
- Rich immersion to the field programmes and challenges in public health so that students appreciate the issues, connect with the community and identify innovative solutions as part of student internship.
- Fosters strong sense of social justice, ethics and leadership during the programme

14.4 Admission process

- Target audience: Graduates from multidisciplinary medical backgrounds such as medicine, dentistry, physiotherapy, occupational therapy, AYUSH (ayurveda, yoga and naturopathy, unani, siddha and homoeopathy), nursing, veterinary sciences or pharmacy; and non-medical backgrounds such as engineering, statistics/biostatistics, demography, population studies, nutrition, sociology, economics, psychology, anthropology, social work, management, life sciences, social sciences, management, law and arts.
- Eligibility: Candidates should have at least 50% marks in aggregate and should secure at least 5.0 CGPA on a 10-point scale.
- Selection process:
  - Statement of purpose
  - Writing sample
  - Group Discussions
  - Personal Interview

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15. Programme Aim:

The aim of this programme is to provide students with a multi-disciplinary experience across a whole range of public health competencies, areas and programs.

16. Programme Outcomes (PO's)

PO-1. ***Public health knowledge:*** Apply the knowledge of art, science, public health fundamentals, and a public health specialization to the solution of complex community problems.

PO-2. ***Problem analysis:*** Identify, formulate, review research literature, and analyse complex public health problems reaching substantiated conclusions using first principles of public health, natural sciences, and medical sciences.

PO-3. ***Design/development of solutions:*** Design solutions for complex public health problems and design system components or processes that meet the specified needs with appropriate consideration for public health and safety, and the cultural, societal, and environmental considerations.

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PO-4. ***Conduct investigations of complex problems:*** Use research-based knowledge and research methods including design of interventions, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO-5. ***Modern tool usage:*** Create, select and apply appropriate techniques, resources, and modern medical engineering and tools including prediction and modelling to complex public health activities with an understanding of the limitations.

PO-6. ***Public health and society:*** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional public health practice.

PO-7. ***Environment and sustainability:*** Understand the impact of professional public health solutions in societal, occupational and environmental contexts, and demonstrate the knowledge of and need for sustainable development.

PO-8. ***Ethics:*** Apply ethical principles and commit to professional ethics and responsibilities and norms of the public health practice.

PO-9. ***Individual and teamwork:*** Function effectively as an individual and as a member or leader in diverse teams and in multidisciplinary settings.

PO-10. ***Communication:*** Communicate effectively on complex public health activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO-11. ***Project management and finance:*** Demonstrate knowledge and understanding of public health and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO-12. ***Life-long learning:*** Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of scientific change.

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17. Programme Education Objectives

PEO-1. Provide students with a strong foundation in public health principles, concepts and research, to enable them to devise and deliver effective solutions to challenging public health problems

PEO-2. Impart technical skills required to develop innovative solutions as per behavioral, technological and structural requirements in public healthcare

PEO-3. Impart the required managerial and entrepreneurial skills to enable students to contribute to the public healthcare industry as specialist

PEO-4. Instill human values, social, interpersonal and leadership skills required for professional success in evolving as global professionals

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Sl.No.	Course Type	Credit
1	Major Discipline Core course	37
2.	Major Discipline Elective Courses	09
3	Open/Generic Elective Courses	05
4	Research Courses	08
5	Project work/Dissertation/Internship	21
Total Credit		**80**

a. Programme Delivery Structure

The programme is delivered on weekdays from Monday to Saturday as per the time-table.

b. Teaching and Learning Methods

The course delivery comprises of a combination of few or all of the following methods:

i. Face-to-face lectures using audio-visual aid.
ii. Case-based learning
iii. Workshops, group discussions, debates and presentations
iv. Demonstration
v. Guest lectures from industry and academia
vi. Laboratory/field work
vii. Industry visit/visit to public health/health organizations
viii. Seminars/conferences
ix. Group exercise
x. Project exhibitions

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c. PHP605B Project Work

This course is intended to apply and synergize the learning outcomes of MPH programme through a project work. As part of the project work, students will be placed in different public health/health organizations such as sub-centers, primary health centers, community health care centers, district hospitals, first referral units and outreach centers in rural and urban areas. The project will enable the students to apply the theoretical and practical aspects of community-based or health-facility survey and project on relevant public health issue. This facilitates understanding and exploration of how the National Health Programmes are implemented at the population, health-facility and household levels.

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d. PHI608B Internship

As part of the internship course, students will be placed in different public health/health organizations such as NGOs and reputed health organizations. This course will provide opportunity for experiential learning with respect to social determinants, understanding various factors that interplay in deciding the health of the community and initiatives taken at the local, regional and international levels to address public health challenges.

e. PHP607B Dissertation

A student selects a topic for dissertation based on the contemporary health issue and undertake the research. The dissertation requires primary data collection from health facilities/participants and preparation of a thesis at the Master's level and its defense. The students are also required to obtain Institutional Human Ethics Committee (IHEC) approval prior to primary data collection involving human subjects. In addition, students are encouraged to present a paper based on their research findings at a National/International conference and submit a manuscript for peer review publication in impact factor/UGC-CARE listed Journals. Please note that dissertation is considered completed only if both part-1 and part-2 are accomplished.

a. Assessment and Grading

A course assessment will have two components:

- Component-1: Continuous evaluation-60%
- Component-2: Semester-End Examination (SEE)-40%

For more details on the break-ups of weightage, please refer the respective course syllabus.

A student is required to score a minimum of 40% (independently in components 1 and 2) for successful completion of a course and earning the credits.

Note: Final marks awarded in each of the courses will be confirmed only after SAB/PAB as explained in Academic Regulations of MPH programme.

b. Attendance

A student is required to obtain a minimum of 75% attendance to be eligible to write the examination. Less than 75% attendance is considered FAIL; such a student is required to follow the same procedure as that of a failed student.

c. Award of degree

As per the Academic Regulations for MPH programme.

d. Student Support for Learning

Students are given the following support:

a. Reference books in the library
b. Pre-reads and handouts
c. Cases/case study

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d. Magazines and journals
e. Internet facility
f. Computing facility
g. Laboratory facility
h. Workshop facility
i. Staff support
j. Lounges for discussions
k. Any other support that enhances their learning

e. Quality Control Measures

The following are the quality control measures:

1. Review of question papers and assignment at the Department level
2. Student feedback
3. Opportunities for the students to see their assessed work
4. Review by external examiners and external examiners reports
5. Staff student consultative committee meetings
6. Student exit feedback
7. Subject assessment board
8. Programme assessment board

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Programme Map (Course-PO-PSO Map)

Course Code	Programme Outcomes (POs)												Programme Specific Outcomes (PSOs)			
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2	PSO-3	PSO-4
PHC501A	3	3	3	3	3	3	1	1	1	2	3	2	3	3	1	1
PHC502A	3	3	3	3	2	3	1	2	1	2	2	2	3	3	1	1
PHC503A	3	3	3	3	3	3	2	1	1	2	3	2	3	3	1	1
PHC504B	3	3	3	3	1	3	1	2	3	3	3	3	3	1	3	1
PHC505A	3	3	3	3	3	3	2	2	1	1	3	2	3	3	1	1
PHC506A	3	3	3	1	3	2	1	1	1	2	1	2	3	3	3	1
PHC507A	3	3	3	3	2	3	1	1	1	2	2	2	3	3	3	3
PHC509A	3	3	3	3	3	2	2	1	3	1	3	2	3	3	3	3
PHC510A	3	3	3	2	1	2	2	3	3	1	1	2	3	2		1
PHE5XXA	3	3	3	3	3	3		3	3	3	3	3	3	3	2	3
PHC601A	3	3	3	3	2	3	1	1	1	2	2	2	3	3	3	1
PHC602A	3	3	3	2	3	2	2	1	1	1		2	3	3	3	3
PHC603A	3	3	3	2	1	2	2	1	1	1	1	2	3	3	3	2
PHC604A	3	3	3	3	3	3	2	1	1	1	3	2	3	3	3	2
PHP605A	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
PHE6XXA	3	3	3	3	3	3	3	3	2	1	3	2	3	3	2	2
PHC607A	3	3	3	3	3	3	2	1	1	1	3	2	3	3	3	2
PHE6XXA	3	3	3	3	3	1	1	3	3	3		3	3	3	1	3
PHI608A						3	3	1	3	2	2	1			2	3

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Co-curricular Activities

Students are encouraged to participate in co-curricular activities like seminars, conferences, symposium, paper writing, attending industry exhibitions, project competitions and related activities to enhance their knowledge and network.

Cultural and Literary Activities

Annual cultural festivals are held to unwind and ignite the creative endeavors, and students are encouraged to plan and participate in cultural and literary activities.

Sports and Athletics

Students are encouraged to participate in out-door and in-door games on regular basis.

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National health programmes initiatives and schemes in India: Communicable diseases programmes, Non- communicable diseases programmes, Nutritional related health programmes and Pradhan Mantri Arogya Yojana (Ayushman Bharat), RMNCH+A, NHM,IMNCI, IDSP
International public health Organizations/Institutions: WHO, ILO, World bank, FAO, CDC-USA, UNFPA, UNICEF, UNESCO and United Nations.
Health systems of different countries: Health systems in a) Developed countries: U.K, U.S, U.A.E, Germany, Scandinavian countries, Australia and Canada b) Developing countries: Brazil, China, Thailand c) Underdeveloped countries: African countries
Public policy including health policy: Introduction to policy and public policy, Policy making process, policy development and implementation, Health Policy, agenda setting in Health Policy, Public Health Policy Reforms, health policy analysis, advocating policy change Normative and Value based policy and Evidenced-based Policy, health policy and systems research (HPSR)

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3. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)												Programme Specific Outcomes (PSOs)			
	PO -1	PO -2	PO -3	PO -4	PO -5	PO -6	PO -7	PO -8	PO -9	PO -10	PO -11	PO -12	PSO -1	PSO -2	PSO -3	PSO -4
CO-1	3				2	2							3			
CO-2	2	3		2						2	2		3			
CO-3		3	3	2		2						2	3	2		1
CO-4				3	2	3	1						3	2		
CO-5			3	2		3		1	1		2	1	3	2		
CO-6		3										1	3	3	1	1
CO-7		3	3	2			1	1	1	2	1		3	2		
CO-8		3											3	2		
CO-9			3			2		2					3	3	1	1
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution																

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4. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		14
Demonstrations		
2. Demonstration using Videos		
2. Demonstration using Physical Models/ Systems		
3. Demonstration on a Computer		
Numeracy		
1. Solving Numerical Problems		
Practical Work		
1. Course Laboratory		
2. Computer Laboratory		
3. Engineering Workshop/Course Workshop/Kitchen		
4. Clinical Laboratory		
5. Hospital		
6. Model Studio		
Others		
1. Case Study Presentation	05	
2. Guest Lecture		
3. Industry/Field Visit	16	41
4. Brain Storming Sessions		
5. Group Discussions	19	
6. Discussing Possible Innovations	01	
Written Examination (Mid-Term tests and SEE)		05
Total Duration in Hours		60

5. Method of Assessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the MPH Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

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Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			Component 2: SEE (40% Weightage)
Subcomponents	SC1	SC2	SC3	SC4
Subcomponent Type	Mid-Term Test	Assignment	Flexible component	100 marks
Maximum Marks	50	25	25	
CO-1	X		X	X
CO-2	X		X	X
CO-3		X	X	X
CO-4		X	X	X
CO-5		X	X	X
CO-6		X	X	
CO-7		X		X
CO-8			X	X
CO-9			X	X
The details of SC1, SC2, SC3 or SC4 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

6. Achieving learning outcomes

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

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S.No	Curriculum and Capabilities	How imparted during the course
1.	Knowledge	Class room lectures
2.	Understanding	Class room lectures
3.	Critical Skills	Class room lectures
4.	Analytical Skills	Group discussion
5.	Problem Solving Skills	Case discussions
6.	Practical Skills	Case discussions

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7.	Group Work	case study and group discussions
8.	Self-Learning	Seminars
9.	Written Communication Skills	Examination
10.	Verbal Communication Skills	Group discussions
11.	Presentation Skills	Seminars, Case discussions
12.	Behavioral Skills	Group discussion, Case discussions
13.	Information Management	Case discussions
15.	Leadership Skills	Group discussions

V. Course Resources

a. Essential Reading

- Gilson L (2012). Health policy and systems research: a methodology reader.
- Henderson (2004). Consuming Health: The Commodification of Health Care. 1st Ed. Routledge Publications
- Sujatha Rao (2017). Do we care? India's health system. 1st Ed. Oup India Publications

b. Recommended Reading

- Jahangir Moini (2018). Fundamentals of U.S. Health Care: An Introduction for Health Professionals. 1st Ed. Routledge Publications

c. Magazines and Journals

- BMC Public Health https://bmcpublichealth.biomedcentral.com/
- International Journal of Health Services https://journals.sagepub.com/home/joh

d. Websites

- Public Health Systems https://www.thelancet.com/series/public-health-systems

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VI. Course Organization

Course		Public Health Systems & Health Policy
Course		PHC502A
Course Leader/s Name		
Course Leader Contact Details	**Phone:**	080 – 49065555
	E- mail:	
Course Specifications Approval		
Next Course Specifications Review		

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Course Specifications: Epidemiology

Course Title	Epidemiology
Course Code	PHC503A
Department	Allied Health Science
Faculty	Faculty of Life and Allied Health Sciences

1. Course Summary

1. Aim and Summary

The aim of the course is to introduce students to the principles and concepts of epidemiology to train in epidemiology of major communicable and non-communicable diseases and enable students to understand to thee principles and concepts of epidemiology and apply tools, techniques, and study designs to identify and address public health problems.

2. Course Size and Credits:

Number of credits	03
Total hours of class room interaction during the semester	30
Number of practical/tutorial hours	15
Number of semester weeks	16
Department responsible	Allied Health Sciences
Course evaluation	Total Marks: 100
Pass requirement	As per the Academic Regulations
Attendance requirement	As per the Academic Registrar M.S. Ramaiah University of Applied Sciences Bangalore - 560 054

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2. Teaching, Learning and Assessment

1. Course Outcomes (CO)

Upon completion of this course students will be able to:

No.	Intended Learning Outcomes
1.	Explain the principles and concepts of epidemiology
2.	Describe the epidemiology of major communicable and non-communicable diseases
3.	Discuss the types of epidemiological designs
4.	Choosing appropriate tools and techniques of epidemiology for identifying and addressing public health problems
5.	Design an epidemiological study for a given scenario
6.	Develop a plan for investigation and preventive of a communicable and non- communicable disease.

2. Course Contents:

Basic Epidemiology • Scope of epidemiology, measures of disease frequency and association • Ecological/geographical studies • Case control and cohort studies • Intervention studies and Randomised Controlled Trials • Data sources in epidemiology • Disease trends and standardization • Random error/chance • Bias and confounding • Interaction and effect modification • Association and Causation • Validity and reliability • Screening
Advanced Epidemiology • Epidemiology of chronic disease, including cancer, cardiovascular disease, diabetes • Epidemiology of Infectious diseases • Nutritional and physical activity • Environment • Psychiatry

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3. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)												Programme Specific Outcomes (PSOs)			
	PO -1	PO -2	PO -3	PO -4	PO -5	PO -6	PO -7	PO -8	PO -9	PO -10	PO -11	PO -12	PSO -1	PSO -2	PSO -3	PSO -4
CO-1	3		2	1		2							3			
CO-2	2	3				2	2			1			3			
CO-3			3				2		1			2	3	2		1
CO-4					3	2							3	2		
CO-5		2		3	3	3		1	1		3	1	3	3	1	1
CO-6		1	3				1	1	1	2			3	3	1	1
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution																

4. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		14
Demonstrations		
3. Demonstration using Videos		
2. Demonstration using Physical Models/ Systems		
3. Demonstration on a Computer		
Numeracy		
1. Solving Numerical Problems		
Practical Work		
1. Course Laboratory		
2. Computer Laboratory		
3. Engineering Workshop/Course Workshop/Kitchen		
4. Clinical Laboratory		
5. Hospital		
6. Model Studio		
Others		26
1. Case Study Presentation	10	
2. Guest Lecture		
3. Industry/Field Visit		
4. Brain Storming Sessions	05	
5. Group Discussions	10	
6. Discussing Possible Innovations	01	
Written Examination (Mid-Term tests and SEE)		05
Total Duration in Hours		45

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5. Method of Assessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the MPH Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			Component 2: SEE (40% Weightage)
Subcomponents	SC1	SC2	SC3	SC4
Subcomponent Type	Mid-Term Test	Assignment	Flexible component	100 marks
Maximum Marks	50	25	25	
CO-1	X		X	X
CO-2	X		X	X
CO-3		X	X	X
CO-4		X	X	X
CO-5		X	X	X
CO-6		X	X	
The details of SC1, SC2, SC3 or SC4 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

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6. Achieving learning outcomes

The following skills are directly or indirectly imparted to the students in the following teaching and learning method:

S.No	Curriculum and Capabilities	How imparted during the course
1.	Knowledge	Class room lectures
2.	Understanding	Class room lectures
3.	Critical Skills	Class room lectures
4.	Analytical Skills	Group discussion
5.	Problem Solving Skills	Case discussions
6.	Practical Skills	Case discussions
7.	Group Work	case study and group discussions
8.	Self-Learning	Seminars
9.	Written Communication Skills	Examination
10.	Verbal Communication Skills	Group discussions
11.	Presentation Skills	Seminars, Case discussions
12.	Behavioral Skills	Group discussion, Case discussions
13.	Information Management	Case discussions
15.	Leadership Skills	Group discussions

3. Course Resources

1. Essential Reading

- Rothman (2012). Modern Epidemiology. Lippincott Williams and Wilkins Publishers
- Leon Gordis (2013). Eidemiology. 5th Ed. Elsevier Publishers
- Kestenbaum (2019). Epidemiology and Biostatistics: An Introduction to Clinical Research 2nd Ed. Springer Publishers
- Merrill (2012). Fundamentals of Epidemiology and Biostatistics. Jones & Bartlet Publishers
- Robert Friis (2013). Epidemiology for public health practice. 5th Ed. Jones & Bartlet Publishers

2. Recommended Reading

- Kestenbaum (2019). Epidemiology and Biostatistics: Practice Problem Workbook. Springer Publishers
- John Last (2001). A Dictionary of Epidemiology. 4th Ed. Oxford Publishers
- WHO (1989). Manual Of Epidemiology For District Health Management. CBS Publishers
- Morton (2001). A study guide to epidemiology and biostatistics. 5th Ed. Jones & Bartlet Publishers

- Timmreck (2002). An introduction to epidemiology. Jones & Bartlet Publishers
- Ann Aschengrau (2013). Essentials of Epidemiology in Public Health. 3rd Ed. Johns and barlett Publishers

3. Magazines and Journals
    - Epidemiology - LWW Journals - Wolters Kluwer https://journals.lww.com/epidem/pages/default.aspx
4. Websites
    - https://www.cdc.gov/csels/dsepd/ss1978/lesson1/section1.html

4. Course Organization

Course		Epidemiology
Course		PHC503A
Course Leader/s Name		
Course Leader Contact Details	**Phone:**	080 – 49065555
	E- mail:	
Course Specifications Approval		
Next Course Specifications Review		

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Course Specifications: Healthcare Management and Leadership

Course Title	Healthcare Management and Leadership
Course Code	PHC504B
Department	Allied Health Science
Faculty	Faculty of Life and Allied Health Sciences

1. Course Summary

1. Aim and Summary

This course aims to give basic understanding of management concepts, its principles, and functions relevant to the health sector and introduce the students to leadership traits generally demonstrated by leaders in healthcare. Specifically, students will be trained to understand the concepts of planning, organizing, staffing, directing, coordinating, reporting and budgeting (POSDCORB) in managing services delivery through health programmes and projects. In addition, they will be sensitized with the concept of leadership, need for leadership in public health and role of a leader in the health sector.

2. Course Size and Credits:

Number of credits	04
Total hours of class room interaction during the semester	45
Number of practical/tutorial hours	15
Number of semester weeks	16
Department responsible	Allied Health Sciences
Course evaluation	Total Marks: 100
Pass requirement	As per the Academic Regulations
Attendance requirement	As per the Academic Regulations

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2. Teaching, Learning and Assessment

1. Course Outcomes (CO)

Upon completion of this course students will be able to:

No.	Intended Learning Outcomes
1.	Discuss the dynamics of a health care organizations, processes, functions, culture, climate and organization behavior as a whole.
2.	Sensitize with the emerging issues and challenges of leading teams and healthcare organizations in the contemporary context.
3.	Explain important management functions such as planning and organizing relevant to health organizations and programs.
4.	Apply the management concepts and demonstrate leadership skills to manage health programs.
5.	Identify personal leadership styles and evaluate individual competencies and gaps

2. Course Contents:

Organization and organizational behavior: Concepts and functions of organization, organization structure, organization behavior, organization culture and climate, team and team dynamics, personality traits, organizational development and change management.
Management functions: Planning as a management function, Types of planning in general and planning in the healthcare sector, the planning process in general and planning in Indian healthcare system, Steps in planning a health program, Organizing (Organizing health programs in India)
Leadership and public health: Concept of leadership, need for leadership in public health, role of a Leader, leadership and motivation, and traits of effective leader. Leadership theories and its application in public health, Great Man Theories, Trait Theories, Contingency Theories, Situational Theories and Behavioral Theories Concept of motivation, Intrinsic vs. Extrinsic motivation, theories of motivation such as Maslow's need hierarchy theory, Herzberg's two- factor theory and its applicability in healthcare leadership.
Leadership models: Concept and importance of Self-leadership, Self-Motivation for Leaders, Ruth-Seliger Model, Maxewell's Model, Models for Situational Leadership, Conflict Management, Bagchi's model of platform vs purpose and sources of power.
Leadership challenges in public health: Challenges in Leadership, Overcome Challenges in Leadership, Role of Communication in Overcoming Leadership Challenges (case studies, experiences of experts), Change management through leadership, Leadership in Chaos environment and Leadership in the Face of Adversity.

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3. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)												Programme Specific Outcomes (PSOs)			
	PO -1	PO -2	PO -3	PO -4	PO -5	PO -6	PO -7	PO -8	PO -9	PO -10	PO -11	PO -12	PSO -1	PSO -2	PSO -3	PSO -4
CO-1		2	2			2		2	2	3	1				2	
CO-2	3	2		3		2							3			
CO-3		3	3	2				1		2	3		3			
CO-4					1				3	3	2	1		1	3	1
CO-5							1		2			2	1		2	1
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution																

4. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		12
Demonstrations		
4. Demonstration using Videos		
2. Demonstration using Physical Models/ Systems		
3. Demonstration on a Computer		
Numeracy		
1. Solving Numerical Problems		
Practical Work		
1. Course Laboratory		
2. Computer Laboratory		
3. Engineering Workshop/Course Workshop/Kitchen		
4. Clinical Laboratory		
5. Hospital		
6. Model Studio		
Others		
1. Case Study Presentation	18	
2. Guest Lecture		
3. Industry/Field Visit		43
4. Brain Storming Sessions		
5. Group Discussions	19	
6. Discussing Possible Innovations	05	
Written Examination (Mid-Term tests and SEE)		05
Total Duration in Hours		60

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2. Teaching, Learning and Assessment

1. Course Outcomes (CO)

Upon completion of this course students will be able to:

No.	Intended Learning Outcomes
1.	Explain concepts of descriptive and inferential statistics, probability, random variation, and commonly used probability distributions.
2.	Apply concepts and methods from biostatistics and epidemiology disciplines jointly
3.	Apply and interpret common univariate, bivariate and multivariate statistical analyses for inferences.
4.	Apply assumptions and limitations of common statistical tests and choose appropriate tests for analysis
5.	Use appropriate statistical packages for data analysis and management.

2. Course Contents:

Introduction: Definition of statistics, information and statistical methodology - significance and scope of statistics in public health, and overview of descriptive and inferential statistics
Data and data collection: Meaning of data, types of data, scales of measurement, methods of construction of scales, reliability and validity, classification and tabulation of data, graphical presentation of data, and data preparation prior to analysis (normality, outlier, treating missing vales).
Descriptive statistics: Frequencies, proportion and percentage, Probability and probability distribution, Measures of central tendency (Mean, median and mode) and dispersion (Standard deviation, mean deviation, variance, percentile, quartiles, interquartile range).
Sampling and sampling methods: Sample size estimation, sampling methods (probabilistic and non-probabilistic) and their application in public health research – Probabilistic: Simple random sampling, Systematic sampling, Stratified sampling, Clustered sampling, Non-probabilistic: Convenience sampling, Quota sampling, Judgement (or Purposive) Sampling, Snowball sampling etc.
Analytical and Inferential Statistics: Hypothesis testing and p-value, Confidence interval and confidence level, Comparison of continuous variables between two groups such as: Comparison of categorical variables between two groups Comparison of variables between two groups using distribution free methods- Correlation - Pearson's correlation, - Spearman's rank correlation Regression: Linear and logistic (Binary and multinomial) and their applications in prediction

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3. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)												Programme Specific Outcomes (PSOs)			
	PO -1	PO -2	PO -3	PO -4	PO -5	PO -6	PO -7	PO -8	PO -9	PO -10	PO -11	PO -12	PSO -1	PSO -2	PSO -3	PSO -4
CO-1	3	2	2	1		1							3			
CO-2	2	3			1	2	2			1			3			
CO-3		3	3			1	2		1			2	3	2		1
CO-4		3			3	2		2			2		3	2		
CO-5		3	2	3	3	3		1	1		3	1	3	3	1	1
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution																

4. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		15
Demonstrations		
5. Demonstration using Videos		
2. Demonstration using Physical Models/ Systems		
3. Demonstration on a Computer		
Numeracy		15
1. Solving Numerical Problems	15	
Practical Work		
1. Course Laboratory		
2. Computer Laboratory		
3. Engineering Workshop/Course Workshop/Kitchen		
4. Clinical Laboratory		
5. Hospital		
6. Model Studio		
Others		
1. Case Study Presentation	12	
2. Guest Lecture		
3. Industry/Field Visit		25
4. Brain Storming Sessions	05	
5. Group Discussions	08	
6. Discussing Possible Innovations		
Written Examination (Mid-Term tests and SEE)		05
Total Duration in Hours		60

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5. Method of Assessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the MPH Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			Component 2: SEE (40% Weightage)
Subcomponents	SC1	SC2	SC3	SC4
Subcomponent Type	Mid-Term Test	Assignment	Flexible component	100 marks
Maximum Marks	50	25	25	
CO-1	X		X	X
CO-2	X		X	X
CO-3		X	X	X
CO-4		X	X	X
CO-5		X	X	X
The details of SC1, SC2, SC3 or SC4 are presented in the Programme Specifications Document.				

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The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

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6. Achieving learning outcomes

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S.No	Curriculum and Capabilities	How imparted during the course
1.	Knowledge	Class room lectures
2.	Understanding	Class room lectures
3.	Critical Skills	Class room lectures
4.	Analytical Skills	Group discussion
5.	Problem Solving Skills	Case discussions
6.	Practical Skills	Case discussions
7.	Group Work	case study and group discussions
8.	Self-Learning	Seminars
9.	Written Communication Skills	Examination
10.	Verbal Communication Skills	Group discussions
11.	Presentation Skills	Seminars, Case discussions
12.	Behavioral Skills	Group discussion, Case discussions
13.	Information Management	Case discussions
15.	Leadership Skills	Group discussions

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3. Course Resources

1. Essential Reading

- Sunder (2020). Fundamentals of Epidemiology and Biostatistics. 1st Ed. CBS Publications
- Lisa Marie Sullivan (2020). Biostatistics for Public Health: A Primer. Jones & Bartlet Publications
- Lisa Marie Sullivan (2011). Essentials of Biostatistics in Public Health. 2nd Ed. Jones & Bartlet Publications
- Gerstman (2014). Basic Biostatistics. 2nd Ed. Jones & Bartlet Publications
- Daniel W.W, Biostatistics: A foundation for analysis in the health sciences, John Wiley & Sons, Inc.

2. Recommended Reading

- Gordon Taylor (2014). Medical Statistics Made Easy. 3rd Ed. Jones & Bartlet Publications
- Fundamental Mathematics for Epidemiology Study (2018). Jones

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& Bartlet Publications

3. Magazines and Journals
    - Biostatistics | Oxford Academic https://academic.oup.com/biostatistics
4. Websites
    - https://www.biostat.washington.edu/about/biostatististicsBetty Kirwhood (2003) Essential
    - Medical Statistics. 2nd Ed. Wiley Blackwell Publications

4. Course Organization

Course		Biostatistics
Course		PHC505A
Course Leader/s Name		
Course Leader Contact Details	**Phone:**	080 – 49065555
	E- mail:	
Course Specifications Approval		
Next Course Specifications Review		

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Master in Public Health (MPH) 2022-2026

SEMESTER 2

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Course Specifications: Public Health Priorities in India-I

Course Title	Public Health Priorities in India-I (Communicable disease and MNCH)
Course Code	PHC506A
Department	Allied Health Science
Faculty	Faculty of Life and Allied Health Sciences

1. Course Summary

1. Aim and Summary

This course provides students the required understanding of public health priorities in India with a focus on Communicable diseases and Maternal, Neonatal and Child Health.
The course trains students for analysis of existing public health programs and developing interventions addressing to address the current challenges on the field that affect health outcomes. The students will be trained to critically analyze the role of public and private sectors using primary and secondary data, and this enables them address public health issues.

2. Course Size and Credits:

Number of credits	04
Total hours of class room interaction during the semester	45
Number of practical/tutorial hours	15
Number of semester weeks	16
Department responsible	Allied Health Sciences
Course evaluation	Total Marks: 100
Pass requirement	As per the Academic Regulations
Attendance requirement	As per the Academic Regulations

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2. Teaching, Learning and Assessment

1. Course Outcomes (CO)

Upon completion of this course students will be able to:

No.	Intended Learning Outcomes
1.	Discuss the public health priorities in relation to communicable diseases and MNCH in India
2.	Explain the inequities that exist in communicable diseases and MNCH in India
3.	Compare the role of public sector and private sector to address the challenges
4.	Analyze data repositories to develop priority setting for addressing public health concerns

2. Course Contents:

Public health Priorities:

- Communicable diseases (emergence of new pathogens causing epidemics and pandemics like Corona viruses; other communicable diseases like HIV, TB, etc.)
- Maternal, neonatal and child health (causes of mortality , factors including social determinants, services and programmes)
- Medical Care (affordability, accessibility, efficiency, effectiveness and transparency) – Universal health coverage (UHC)
- Population stabilization, Globalization, unplanned and unregulated urbanization, changing life styles, environmental issues(e.g., climate change and air pollution), sanitation and waste management, safe drinking water and increasing influence of media and advertising
- Addressing equity - welfare of the weakest and most vulnerable section of the society - barriers to equitable access, integrating equity goals in policy and programs, and targeting resources and efforts to reach the poor and vulnerable sections of the society with the needed services; Health budget allocation

Adequacy of Public health system and facilities to address the health priorities (MNCH and CD):

- Analysis and review of evolution of national health programs related to MNCH and few communicable diseases (HIV, TB, Pandemics)
- Current gaps and challenges in the programs and preparedness of health system and facilities to address challenges and achieve outcomes (SDG)
- Importance of public health research for data generation and evidence based programming with focus on population outcomes; learning from global best practices (program science and implementation research)

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Building partnerships to address public health priorities:

- Build partnerships between government and private for coordination and support to achieve population outcomes through program implementation
- Building partnerships to improve evidence based programming with focus on outcomes
- Role of engaging community structure and community based organizations to address social determinants in MNCH and CD

3. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)												Programme Specific Outcomes (PSOs)			
	PO -1	PO -2	PO -3	PO -4	PO -5	PO -6	PO -7	PO -8	PO -9	PO -10	PO -11	PO -12	PSO -1	PSO -2	PSO -3	PSO -4
CO-1	3					2							3			
CO-2	2	3					1						2	3		
CO-3	1		3	1				1				2			3	1
CO-4	1	2			3	2			1	2	1			2		
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution																

4. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		14
Demonstrations		
6. Demonstration using Videos		
2. Demonstration using Physical Models/ Systems		
3. Demonstration on a Computer		
Numeracy		
1. Solving Numerical Problems		
Practical Work		
1. Course Laboratory		
2. Computer Laboratory		
3. Engineering Workshop/Course Workshop/Kitchen		
4. Clinical Laboratory		
5. Hospital		
6. Model Studio		
Others		41
1. Case Study Presentation	16	
2. Guest Lecture		
3. Industry/Field Visit	10	

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4. Brain Storming Sessions	05	
5. Group Discussions	09	
6. Discussing Possible Innovations	01	
Written Examination (Mid-Term tests and SEE)		05
Total Duration in Hours		60

5. Method of Assessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the MPH Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			Component 2: SEE (40% Weightage)
Subcomponents	**SC1**	**SC2**	**SC3**	**SC4**
Subcomponent Type	**Mid-Term Test**	**Assignment**	**Flexible component**	**100 marks**
Maximum Marks	**50**	**25**	**25**	
CO-1	**X**		**X**	**X**
CO-2	**X**		**X**	**X**
CO-3		**X**	**X**	**X**
CO-4		**X**	**X**	**X**
The details of SC1, SC2, SC3 or SC4 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

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6. Achieving learning outcomes

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S.No	Curriculum and Capabilities	How imparted during the course
1.	Knowledge	Class room lectures
2.	Understanding	Class room lectures
3.	Critical Skills	Class room lectures
4.	Analytical Skills	Group discussion
5.	Problem Solving Skills	Case discussions
6.	Practical Skills	Case discussions
7.	Group Work	case study and group discussions
8.	Self-Learning	Seminars
9.	Written Communication Skills	Examination
10.	Verbal Communication Skills	Group discussions
11.	Presentation Skills	Seminars, Case discussions
12.	Behavioral Skills	Group discussion, Case discussions
13.	Information Management	Case discussions
15.	Leadership Skills	Group discussions

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3. Course Resources

1. Essential Reading

- Vynnycky (2010). An Introduction to Infectious Disease Modelling. 1st ed. Oxford Publishers
- Marlon Maus (2017). Aging, Place, and Health. Jones & Bartlet Publishers
- Senie (2013). Epidemiology of Women's Health. 1st Ed. Jones & Bartlet Publishers
- Sue Roulstone (2006). Prioritising Child Health: Practice and Principles. 1st Ed. Routledge Publishers
- Sandra Dawson (2009). Future Public Health: Burdens, Challenges and Opportunities. Springer Publishers

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2. Recommended Reading

- Geoffery Rose (2008). Rose's strategy of preventive medicine. OUP Oxford Publishers
- Paul Farmer (2001). Infections and Inequilities: The modern plagues. University of California Press
- Stephen Moses (2006). AIDS in South Asia. World Bank Publications
- Kathleen Meehan (2009). Outbreak Investigation, Prevention, and Control in Health Care Settings: Critical Issues in Patient Safety. 2nd Ed. Jones & Bartlet Publications
- Tod (2014). Health and Inequality: Applying Public Health Research to Policy and Practice. 1st Ed. Routledge Publications
- Ramesh et al (2018). Maternal Newborn and Child Health Programmes in India: A Program Science Approach. 1st Ed. SAGE Publishers

3. Magazines and Journals

- Amanda McClelland, Thomas R Frieden. Understanding, preventing, and stopping epidemics. www.thelancet.comVol 391 June 23, 2018
- David M. Morens, Gregory K. Folkers, and Anthony S. Fauci. What Is a Pandemic? 1020 JID 2009:200 (1 October)
- BillahM.A, Miah M.M, Khan M.N (2020) Reproductive number of coronavirus: A systematic review and meta-analysis based on global level evidence. PLoSONE 15(11): e0242128. https://doi. org/10.1371/journal.pone.0242128
- COVID-19: Many Facets and Dimensions. Ramaiah Group and Collaborators (2021)
- Journal of Communicable Diseases
    - https://www.scimagojr.com/journalsearch.php?q=22422&tip=sid
    - https://medical.adrpublications.in/index.php/Journal-CommunicableDiseases
- Mony PK, et al. (2013). Availability and Distribution of Emergency Obstetric Care Services in Karnataka State, South India: Access and Equity Considerations. PLoS ONE 8(5): e64126
- B M Ramesh, Shiva S Halli, Krishnamurthy Jayanna, Mohan H L. Maternal, Newborn and Child Health Programmes in India. A Programme Science Approach. June 2018. SAGE India

4. Websites

- https://www.who.int/health-topics/coronavirus#tab=tab_1
- https://www.who.int/health-topics/tuberculosis#tab=tab_1
- https://www.who.int/maternal_child_adolescent/en/
- https://www.who.int/health-topics/hiv-aids/#tab=tab_1
- https://www.nhp.gov.in/healthlyliving/ncd2019

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4. Course Organization

Course		Public Health Priorities in India-I
Course		PHC506A
Course Leader/s Name		
Course Leader Contact Details	**Phone:**	080 – 49065555
	E- mail:	
Course Specifications Approval		
Next Course Specifications Review		

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Course Specifications: Public Health Priorities in India-II

Course Title	Public Health Priorities in India-II (NCDs and Nutrition)
Course Code	PHC507A
Department	Allied Health Science
Faculty	Faculty of Life and Allied Health Sciences

1. Course Summary

1. Aim and Summary

The course exposes the students to few more public health priorities affecting India's SDG health outcomes with particular reference to non-communicable disease and Nutrition. The students will be oriented toward the risk factors and determinants, levels of prevention, health promotion strategies, level of health system preparedness and community preparedness to achieve outcomes. A major part fo the course will focus on training students to appraise the role of nutrition in development and prevention of disease, promotion of health. The students will also be sensitized to nutrition information and education, utilizing knowledge of the relationship between good nutrition and health to translate into healthy behaviors

2. Course Size and Credits:

Number of credits	04
Total hours of class room interaction during the semester	45
Number of practical/tutorial hours	15
Number of semester weeks	16
Department responsible	Allied Health Sciences
Course evaluation	Total Marks: 100
Pass requirement	As per the Academic Regulations
Attendance requirement	As per the Academic Regulations

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2. Teaching, Learning and Assessment

1. Course Outcomes (CO)

Upon completion of this course students will be able to:

No.	Intended Learning Outcomes
1.	Describe the public health priorities in relation to NCDs and malnutrition in Indian context, risk factors and determinants
2.	Explain the upstream and downstream determinants of NCDs and the role of nutrition in the development and prevention of diseases and health conditions
3.	Compare the discrepancies between nutrition research and nutritional information conveyed to the public
4.	Demonstrate various methodological strategies, data analyses, policies, program planning and evaluation theories and techniques, typically used in public health nutrition initiatives
5.	Evaluate public health interventions, programs, and policies related to NCDs from a variety of vantage points recognizing the array of influences on diet, nutrition, and health, such as environmental, socioeconomic, stage in life cycle, psychological, and cultural factors
6.	Design innovative health solutions to an identified public health priority

2. Course Contents:

Non-communicable diseases (NCD)

1. Epidemiology of Chronic and non-communicable diseases, risk factors, global status, prevention and control, global initiatives
2. National strategies for control of NCDs (epidemiology, pathophysiology including biochemical and genetic parameters, cardinal signs, clinical and diagnostic features (with special emphasis on biochemical parameters), treatment (emphasize pharmacological component) prevention and control
    a. Diabetes
    b. Cardiovascular diseases
    c. Asthma and COPD
    d. Obesity
    e. Cancer
3. Tobacco, obesity and other risk factors for NCDs
4. Unintentional Injuries- prevention and control; global and national strategies
5. Introduction to mental health, health promotion, National Mental health policy of India
6. Epidemiology of Major Mental Disorders burden of mental health morbidities, psycho-social, etiology of mental and behavioural disorders; depression, schizophrenia,

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Alzheimer's, Parkinson's, senile dementia, suicides 7. Population-based screening, Surveillance of cancers including cancer registry 8. NHP for NCDs: NPCDCS, National Mental Health Programme
Nutrition • Epidemiology, Anthropology and Public Health Nutrition; Professional roles, Nutrition assessment • Community Needs Assessment • Promoting Nutritional Health: Children and Adults • Assessing Nutritional status Dietary Guidelines • Nutrition and Public Policy • Designing, and Planning Community Nutrition Intervention • Evaluating and managing Community Nutrition Intervention • Public Health Nutrition: Local County and States • Public Health Nutrition: National and International Issues

3. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)												Programme Specific Outcomes (PSOs)			
	PO -1	PO -2	PO -3	PO -4	PO -5	PO -6	PO -7	PO -8	PO -9	PO -10	PO -11	PO -12	PSO -1	PSO -2	PSO -3	PSO -4
CO-1	3				2	2							3			
CO-2	3	2			2	2							2	3		2
CO-3	2	3		2						2	2			3	3	2
CO-4		3	3	2		2						2				3
CO-5				3	2	3	1							2	3	2
CO-6		2	3	2		3		1	1		2	1	3	2		
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution																

4. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		14
Demonstrations		
1. Demonstration using Videos		
2. Demonstration using Physical Models/ Systems		
3. Demonstration on a Computer		
Numeracy		
1. Solving Numerical Problems		
Practical Work		
1. Course Laboratory		

2. Computer Laboratory		
3. Engineering Workshop/Course Workshop/Kitchen		
4. Clinical Laboratory		
5. Hospital		
6. Model Studio		
Others		
1. Case Study Presentation	15	41
2. Guest Lecture		
3. Industry/Field Visit	09	
4. Brain Storming Sessions	05	
5. Group Discussions	11	
6. Discussing Possible Innovations	01	
Written Examination (Mid-Term tests and SEE)		05
Total Duration in Hours		60

5. Method of Assessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the MPH Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			**Component 2: SEE (40% Weightage)**
Subcomponents	**SC1**	**SC2**	**SC3**	**SC4**
Subcomponent Type	**Mid-Term Test**	**Assignment**	**Flexible component**	**100 marks**
Maximum Marks	**50**	**25**	**25**	
CO-1	X		X	X
CO-2	X		X	X
CO-3		X	X	X
CO-4		X	X	X
CO-5		X	X	X
CO-6		X	X	X
The details of SC1, SC2, SC3 or SC4 are presented in the Programme Specifications Document.				

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The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

6. Achieving learning outcomes

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S.No	Curriculum and Capabilities	How imparted during the course
1.	Knowledge	Class room lectures
2.	Understanding	Class room lectures
3.	Critical Skills	Class room lectures
4.	Analytical Skills	Group discussion
5.	Problem Solving Skills	Case discussions
6.	Practical Skills	Case discussions
7.	Group Work	case study and group discussions
8.	Self-Learning	Seminars
9.	Written Communication Skills	Examination
10.	Verbal Communication Skills	Group discussions
11.	Presentation Skills	Seminars, Case discussions
12.	Behavioral Skills	Group discussion, Case discussions
13.	Information Management	Case discussions
15.	Leadership Skills	Group discussions

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3. Course Resources

1. Essential Reading

- World Health Organization (2016). Global Report on Diabetes. WHO Press, Switzerland
- National Centre for Disease Control Director General of Health Services Ministry of Health and Family Welfare, GOI 2017. Training Module for Medical Officers for Prevention, Control and Population Level Screening of Hypertension, Diabetes and Common Cancer (Oral, Breast and Cervical). National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke

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- World Health Organization 2014: GLOBAL STATUS REPORT on Non-communicable Diseases
- World Health Organization 2013: Global Action Plan for the Prevention and Control of NonCommunicable Diseases, 2013-2020, WHO, Geneva, Switzerland
- Standard Treatment Guidelines: Hypertension Screening, Diagnosis, Assessment, and Management of Primary Hypertension in Adults in India- Quick Reference Guide May 2016 Ministry of Health and Family Welfare, Government of India
- Prevention of cardiovascular disease: guidelines for assessment and management of total cardiovascular risk: World Health Organization. ISBN 978 92 4 154717 8 (NLM classification: WG 120) © World Health Organization 2007
- Blank. (2010) Handbook of Foods and Nutrition. Star Publishers
- Duncan (2002). Demography and Nutrition: Evidence from Historical and Contemporary Populations. Wiley publishers
- Viviane Clavier (2019). Food and Health: Actor Strategies in Information and Communication. 1st Ed. Wiley Publishers

2. Recommended Reading

- Smolin (2013) Nutrition: Science and Applications. 3rd Ed. Wiley Publishers
- Buttriss (2017)Public Health Nutrition . 2nd Ed. Wiley Publishers
- Walter Willett (2012) Nutritional Epidemiology. 3rd Ed. Oxford Publishers
- Neil Mann (2012) Evolving Human Nutrition: Implications for Public Health. 1st Ed. Cambridge Publishers
- Simon Langley (2015). Nutrition, Health and Disease: A Lifespan Approach. 2nd Ed. Wiley publishers

3. Magazines and Journals

- Public Health Nutrition https://www.nutritionsociety.org/publications/journals
- Krishnamurthy Jayanna, N. Swaroop, Arin Kar, et al. Designing a comprehensive Non- Communicable Diseases (NCD) programme for hypertension and diabetes at primary health care level: evidence and experience from urban Karnataka, South India. BMC Public Health (2019) 19:409
- M K Pati, Swaroop N, Arin Kar, Preeti Aggarwal, Krishnamurthy Jayanna, Wim Van Damme. A narrative review of gaps in the provision of integrated care for non-communicable diseases in India.) Public Health Rev. 2020 May 13;41:8. doi: 10.1186/s40985-020-00128-3. PMID: 32435518; PMCID: PMC7222468

4. Websites

- https://www.nutritionsociety.org/
- https://www.who.int/health-topics/noncommunicable-diseases#tab=tab_1
- https://www.who.int/health-topics/nutrition

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4. Course Organization

Course		Public Health Priorities in India-II
Course		PHC507A
Course Leader/s Name		
Course Leader Contact Details	**Phone:**	080 – 49065555
	E- mail:	
Course Specifications Approval		
Next Course Specifications Review		

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Course Specifications: Research Methodology in Public Health

Course Title	Research Methodology in Public Health
Course Code	PHC508A
Department	Allied Health Sciences
Faculty	Faculty of Life and Allied Health Sciences

1. Course Summary

1. Aim and Summary

This course aims to give a background of scientific research principles, and emphasizes on the methodologies that are used to conduct research specifically in the field of public health. The students will be introduced to important components of research paradigm (ontology, epistemology, methodology and ethics), principles, process and approaches to research methodologies relevant to public health research. They will be also trained to conduct systematic and rigorous literature review and use appropriate methods (quantitative, qualitative and mixed-method), tools, techniques and technologies to conduct research in public health.

2. Course Size and Credits:

Number of credits	04
Total hours of class room interaction during the semester	45
Number of practical/tutorial hours	15
Number of semester weeks	16
Department responsible	Allied Health Sciences
Course evaluation	Total Marks: 100
Pass requirement	As per the Academic Regulations
Attendance requirement	As per the Academic Regulations

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2. Teaching, Learning and Assessment

3. Course Outcomes (CO)

Upon completion of this course students will be able to:

No.	Intended Learning Outcome
1	Explain the principles, process and paradigm of research methodologies.
2	Discuss the steps for conducting systematic review of research literature
3	Apply principles and practice of ethics and evidence-based public health
4	Demonstrate skills and techniques for effective scientific communication
5	Demonstrate appropriate application of research methods, techniques and technologies for conducting research of public health importance.

4. Course Contents

Unit-I: Overview of research and research methods in public health: Concept and definition of research, types of research, (basic, empirical, applied, action and policy research), research paradigm (ontology, epistemology, axiology and ethics), types of research paradigm (positivist, post-positivist and pragmatism), research approaches (induction and deduction), scientific process in research, planning of research studies and steps in conducting a research. (Formation of research problem, developing research questions, aim, objectives hypothesis, conceptual framework, selection of research methods and design, data collection and analysis, report writing and research dissemination).
Unit-II: Review of Literature:– Importance of literature review, types of literature (peered review and grey), types of literature review (narrative, scoping, critical, systematic), PRISMA reporting guidelines, constituents of good literature review, strategies for literature search, referencing styles (Harvard, Vancouver, APA etc.,) and software (such as Mendeley, EndNote, Zotero), paraphrasing, and, syntheses, summarizing scientific communication – skills and techniques.
Unit-III Quantitative methods in public health research: Designs in quantitative research (cross-sectional, case control, cohort and randomized controlled trials), data collection techniques (survey and interviews), study variables (dependent, independent, controlled), tools development (questionnaire, interview schedule), translation and back translation of the schedule/questionnaire, pilot testing of tools (reliability and validity), sample selection procedures and sample frame, sample size estimation for different study designs. Demonstration of numeric data analysis for univariate, bivariate and multivariate analyses.
Unit-IV: Qualitative and mixed-method in public health research: Introduction to designs in qualitative research (case- study, ethnography, participant's observation, and phenomenology), qualitative data collection techniques (In-depth interviews and focus group discussions), qualitative data collection tools (In- depth interview and focus discussion guides), sampling techniques and sample size, mixed-method design (Sequential and concurrent designs and data triangulation), Qualitative data analysis approaches (Framework approach, quasi-statistical, Interpretative approach and Socio-linguistic

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approach, Rigour and trustworthiness of qualitative research – Credibility, transferability, dependability and confirmability.
Unit-V Ethical considerations in research: Introduction, research misconduct (fabrication, falsification and plagiarism), publication ethics, informed consent, privacy and confidentiality, research ethics in clinical trials, case studies discussion, Human Subject Ethics review process and role and responsibilities of Institutional Human Ethics Committee (IHEC), research matrix
Unit-VI: Proposal development, research report writing, and research dissemination: Components and format of a research proposal, research funding and funding organizations, components of a research report, writing a structured and unstructured abstract, developing a poster and research paper for conference presentation, peered review publications in journals, impact factor, citation, H-index, integrity, misconduct, conflict of interest, and authorship in publications.

5. Course Map (CO-PO-PSO Map) RM

	Programme Outcomes (POs)												Programme Specific Outcomes (PSOs)			
	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2	PSO-3	PSO-4
CO-1	3		2	1		2							3			
CO-2	2	3				2	2			1			2	3		
CO-3			3				2		1			2	3		3	1
CO-4					3	2								2		
Co-5		2		3	3	3		1	1		3	1	3			
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution																

6. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		14
Demonstrations		
1. Demonstration using Videos		
2. Demonstration using Physical		
3. Demonstration on a Computer		
Numeracy		
1. Solving Numerical Problems		
PracticalWork		
1. Course Laboratory		
2. Computer Laboratory		
3. Engineering Workshop/Course Workshop/Kitchen		
4. Clinical Laboratory		
5. Hospital		
6. Model Studio		
Others		
1. Case Study Presentation	15	41
2. Guest Lecture		
3. Industry/Field Visit		
4. Brain Storming Sessions		

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5. Group Discussions	25	
6. Discussing Possible Innovations	01	
Written Examination (Term tests and SEE)		05
Total Duration in Hours		60

7. Method of Assessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the MPH (Master in Public Health) Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2, SC3 or SC4), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			Component 2: SEE (40% Weightage)
Subcomponents	SC1	SC2	SC3	SC4
Subcomponent Type	Mid-Term Test	Assignment	Flexible component	100 marks
Maximum Marks	50	25	25	
CO-1	X		X	X
CO-2	X		X	X
CO-3	X		X	X
CO-4	X		X	X
CO-5		X	X	X
The details of SC1, SC2, SC3 or SC4 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

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8. Achieving learning outcomes

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods

S.No	Curriculum and Capabilities Skills	How imparted during the course
1.	Knowledge	Class room lectures
2.	Understanding	Class room lectures
3.	Critical Skills	Class room lectures
4.	Analytical Skills	Group discussion
5.	Problem Solving Skills	Case discussions
6.	Practical Skills	Case discussions
7.	Group Work	case study and group discussions
8.	Self-Learning	Seminars
9.	Written Communication Skills	Examination
10.	Verbal Communication Skills	Group discussions
11.	Presentation Skills	Seminars, Case discussions
12.	Behavioral Skills	Group discussion, Case discussions
13.	Information Management	Case discussions
15.	Leadership Skills	Group discussions

3. Course Resources

1. Essential Reading

1. Jacobsen (2016). Introduction to Health Research Methods. 2nd Ed. Jones & Bartlet Publishers
2. Bryman, A. (2016). *Social research methods*. Oxford university press
3. Creswell, J. W., & Clark, V. L. P. (2017). *Designing and conducting mixed methodsresearch*. Sage publications.
5. Saldaña, J., & Omasta, M. (2016). *Qualitative research: Analyzing life*. Sage Publications.

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2. Recommended Reading

   1. Thomas (2019). Introduction to Research in the Health Sciences, 7th Ed. Elsevier Publishers
   2. Frederick Kviz (2019). Conducting Health Research: Principles, Process, and Methods. 1st Ed. Sage Publishers\

3. Magazines and Journals

   BMC Medical Research Methodology
   https://bmcmedresmethodol.biomedcentral.com/

4. Websites:

   https://research-methodology.net/research-methodology/

4. Course Organization

Course		Research Methodology
Course		PHC508A
Course Leader/s Name		
Course Leader Contact Details	**Phone:**	080 – 49065555
	E- mail:	
Course Specifications Approval		
Next Course Specifications Review		

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Course Specifications: Health Behaviour and Health Promotion

Course Title	Health Behavior and Health Promotion
Course Code	PHC509A
Department	Allied Health Science
Faculty	Faculty of Life and Allied Health Sciences

1. Course Summary

1. Aim and Summary

This course covers essential content in addressing social and behavioural science concepts for application across community health settings. It analyses the social science theories and perspectives that comprises the foundation of health education theory and practice and their impact on health behaviour and promotion. It elaborates about the individual, interpersonal and community- based approaches with the ethically appropriate and evidenced-based solutions for behavioural factors affecting health at the community level.

2. Course Size and Credits:

Number of credits	03
Total hours of class room interaction during the semester	30
Number of practical/tutorial hours	15
Number of semester weeks	16
Department responsible	Allied Health Sciences
Course evaluation	Total Marks: 100
Pass requirement	As per the Academic Regulations
Attendance requirement	As per the Academic Regulations

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2. Teaching, Learning and Assessment

1. Course Outcomes (CO)

Upon completion of this course students will be able to:

No.	Intended Learning Outcomes
1.	Explain the role of behaviour and social sciences to understand and intervene upon current public health problems in community settings
2.	Identify ethically appropriate, evidence/theory-based models or options for addressing a specific health behaviour in a specific population.
3.	Apply social and behavioural science theories, concepts to identify causes of health- related behaviours
4.	Communicate social and behavioural science concepts with other practitioners and lay audiences.
5.	Design evidence based health interventions adopting principles of health promotion for improving human health.

2. Course Contents:

• Introduction to health communication, its types and methods • Principles of learning • Health education, its concepts, models, aids and approaches
• Health Promotion- Principles and its relevance in planning contextual interventions and their methodological evaluation, milestones in health promotion, Ottawa Charter and its principles
• Health and health behaviour, introduction to medical anthropology and sociological perspectives on health, key concepts in sociology as applied to the study of health, social and cultural processes impacting health status and access to health services
• Theories, models and frameworks for public health interventions, Community based approaches to public health intervention
• Implementing and managing social and behaviour change communication in public health

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3. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)												Programme Specific Outcomes (PSOs)			
	PO -1	PO -2	PO -3	PO -4	PO -5	PO -6	PO -7	PO -8	PO -9	PO -10	PO -11	PO -12	PSO -1	PSO -2	PSO -3	PSO -4
CO-1	3		2	1		2							3			
CO-2	2	3				2	2		1	1	1		2	3		2
CO-3		1	3	2			2		3			2		3	3	2
CO-4				3	3	2										3
CO-5		3	3	1	3	2	1	1	2	1	3	1		2	3	2
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution																

4. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		12
Demonstrations		
7. Demonstration using Videos		
2. Demonstration using Physical Models/ Systems		
3. Demonstration on a Computer		
Numeracy		
1. Solving Numerical Problems		
Practical Work		
1. Course Laboratory		
2. Computer Laboratory		
3. Engineering Workshop/Course Workshop/Kitchen		
4. Clinical Laboratory		
5. Hospital		
6. Model Studio		
Others		
1. Case Study Presentation	04	
2. Guest Lecture		
3. Industry/Field Visit		28
4. Brain Storming Sessions		
5. Group Discussions	14	
6. Discussing Possible Innovations	01	
7. Journal club	09	
Written Examination (Mid-Term tests and SEE)		05
Total Duration in Hours		45

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5. Method of Assessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the MPH Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			Component 2: SEE (40% Weightage)
Subcomponents	SC1	SC2	SC3	SC4
Subcomponent Type	Mid-Term Test	Assignment	Flexible component	100 marks
Maximum Marks	50	25	25	
CO-1	X		X	X
CO-2	X		X	X
CO-3		X	X	X
CO-4		X	X	X
CO-5		X	X	X
The details of SC1, SC2, SC3 or SC4 are presented in the Programme Specifications Document.				

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The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

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6. Achieving learning outcomes

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S.No	Curriculum and Capabilities	How imparted during the course
1.	Knowledge	Class room lectures
2.	Understanding	Class room lectures
3.	Critical Skills	Class room lectures
4.	Analytical Skills	Group discussion
5.	Problem Solving Skills	Case discussions
6.	Practical Skills	Case discussions
7.	Group Work	case study and group discussions
8.	Self-Learning	Seminars
9.	Written Communication Skills	Examination
10.	Verbal Communication Skills	Group discussions
11.	Presentation Skills	Seminars, Case discussions
12.	Behavioral Skills	Group discussion, Case discussions
13.	Information Management	Case discussions
15.	Leadership Skills	Group discussions

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3. Course Resources

1. Essential Reading

- Romas (2010). Theoretical Foundations of Health Education and Health Promotion. 2nd Ed. Jones & Bartlet Publishers
- Hamburg (2007). Health and Behavior: Selected Perspective. Cambridge Publishers
- Effective Communication for Health Professionals (2019). 2nd Ed. Elsevier Publishers

2. Recommended Reading

- Gordon Taylor (2014). Medical Statistics Made Easy. 3rd Ed. Jones &

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Bartlet Publications

- Amanda Avery (2016). How to Facilitate Lifestyle Change: Applying Group Education in Healthcare. 1st Ed. Wiley publishers
- Frada Eskin (2012). Problem-Based Learning for Health Improvement: Practical Public Health for Every Professional. 1st Ed. Routledge Publishers

3. Magazines and Journals

- American Journal of Health Promotion
- https://journals.sagepub.com/home/ahp
- Health Promotion International
- https://academic.oup.com/heapro
- Journal of Health and Social Behaviour
- https://journals.sagepub.com/home/hsb

4. Websites

- https://www.ruralhealthinfo.org/toolkits/health-promotion/2/theories-and-models

4. Course Organization

Course		Health Behavior and Health Promotion
Course		PHC509A
Course Leader/s Name		
Course Leader Contact Details	**Phone:**	080 – 49065555
	E- mail:	
Course Specifications Approval		
Next Course Specifications Review		

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Course Specifications: Ethics in Public Health

Course Title	Ethics in Public Health
Course Code	PHC510A
Department	Allied Health Science
Faculty	Faculty of Life and Allied Health Sciences

1. Course Summary

1. Aim and Summary

The course aims to equip students with foundation and application of ethical concepts to the real-world public health issues. The students will be able to identify critical ethical issues in the practice of public health. The students will be provided with opportunities to elucidate key ethical concepts in a given public health scenario and critically appraise the ethical responsibilities of key decision makers as applicable to developing countries.

2. Course Size and Credits:

Number of credits	02
Total hours of class room interaction during the semester	15
Number of practical/tutorial hours	15
Number of semester weeks	16
Department responsible	Allied Health Sciences
Course evaluation	Total Marks: 50
Pass requirement	As per the Academic Regulations
Attendance requirement	As per the Academic Regulations

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2. Teaching, Learning and Assessment

1. Course Outcomes (CO)

Upon completion of this course students will be able to:

No.	Intended Learning Outcomes
1.	Identify critical ethical issues in the practice of public health (including research) in developing countries
2.	Apply selected conceptual resources to elucidate key ethical concepts while operating public health practice
3.	Critically appraise the ethical responsibilities of actors with decision-making authority over the practice of public health in developing countries
4.	Analyze the key ethical concepts to apply to developing-country contexts

2. Course Contents:

- Introduction to Public Health Ethics
- Foundations in Ethics: Theory and Principles
- Organizational Influences and the Ethical Implications for Health Care
- Ethics, Social Responsibility & Technology
- The Ethics of Quality, Safety & Patient Care
- Community and common good
- Surveillance and privacy
- Ethics, Market Forces & Integrative Medicine
- Moral Integrity & Practicing as an public health administrator
- Self-Reflection, Ethics & Sources to Expand One's Ethical Capacity
- Ethics and Health Promotion
- Balancing Individual and Community Interests
- Priority-Setting and Resource Allocation at the Micro Level
- Theories of Justice and Distribution of Public Health Resources
- Looming issues in public health

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3. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)												Programme Specific Outcomes (PSOs)			
	PO -1	PO -2	PO -3	PO -4	PO -5	PO -6	PO -7	PO -8	PO -9	PO -10	PO -11	PO -12	PSO -1	PSO -2	PSO -3	PSO -4
CO-1	3		2	1		2		3					3			
CO-2		3	2			2	2	2	1	1	1		3			
CO-3		1	3	2			2	2	3			2	3	2		1
CO-4			3	2	1	2		2					3	2		
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution																

4. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		08
Demonstrations		
8. Demonstration using Videos		
2. Demonstration using Physical Models/ Systems		
3. Demonstration on a Computer		
Numeracy		
1. Solving Numerical Problems		
Practical Work		
1. Course Laboratory		
2. Computer Laboratory		
3. Engineering Workshop/Course Workshop/Kitchen		
4. Clinical Laboratory		
5. Hospital		
6. Model Studio		
Others		
1. Case Study Presentation	09	
2. Guest Lecture		
3. Industry/Field Visit		19
4. Brain Storming Sessions	02	
5. Group Discussions	08	
6. Discussing Possible Innovations		
Written Examination (Mid-Term tests and SEE)		03
Total Duration in Hours		30

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5. Method of Assessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the MPH Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1 or SC2), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)		Component 2: SEE (40% Weightage)	
Subcomponents	SC1	SC2	SC3	SC4
Subcomponent Type	Problem solving	Mid-term test	Case study development and presentation	Skill assessment method/s
Maximum Marks	50	50	50	50
CO-1				X
CO-2	X	X		X
CO-3		X	X	X
CO-4		X	X	X
The details of SC1, SC2, SC3 or SC4 are presented in the Programme Specifications Document.				

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The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

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6. Achieving learning outcomes

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S.No	Curriculum and Capabilities	How imparted during the course
1.	Knowledge	Class room lectures
2.	Understanding	Class room lectures
3.	Critical Skills	Class room lectures
4.	Analytical Skills	Group discussion
5.	Problem Solving Skills	Case discussions
6.	Practical Skills	Case discussions
7.	Group Work	case study and group discussions
8.	Self-Learning	Seminars
9.	Written Communication Skills	Examination
10.	Verbal Communication Skills	Group discussions
11.	Presentation Skills	Seminars, Case discussions
12.	Behavioral Skills	Group discussion, Case discussions
13.	Information Management	Case discussions
15.	Leadership Skills	Group discussions

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3. Course Resources

1. Essential Reading
   - Arima Mishra (2018). Ethics in Public Health Practice in India. 1st Ed. Springer Publications
   - ICMR guidelines
2. Recommended Reading
3. Magazines and Journals
   - Public Health Ethics https://academic.oup.com/phe
4. Websites

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- https://www.who.int/bulletin/volumes/86/8/08-052431/en/

4. Course Organization

Course		Ethics in Public Health
Course		PHC510A
Course Leader/s Name		
Course Leader Contact Details	**Phone:**	080 – 49065555
	E- mail:	
Course Specifications Approval		
Next Course Specifications Review		

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Course Specifications: Qualitative Research Methods

Course Title	Qualitative research methods
Course Code	PHE501A
Department	Allied Health Science
Faculty	Faculty of Life and Allied Health Sciences

I.

1. Course Summary

1. Aim and Summary

Background:

Research which involves questions that are complex in nature can't be addressed using quantitative methods. Questions which need in-depth inquiry and deep understanding of the social phenomena require qualitative research methods. Qualitative research is an important area to learn in order to address why and how questions of the research. Students at masters level hardly exposed to such methods during their course or exposed minimally without clarity. This course intends to fill such gaps and equip students with qualitative research skills during their student period itself. The course also aims to develop skills among master students to independently conduct qualitative research including analysis and report writing of the same.
In this course you will be introduced to the basic ideas behind the qualitative research. You will learn about data collection, description, analysis and interpretation in qualitative research. Course will also discuss good practices of qualitative research, criteria, and use of mixed methods. You will also learn how to create a report based on the qualitative data analysis.

2. Course Size and Credits:

Number of credits	03
Total hours of class room interaction during the semester	30
Number of practical/tutorial hours	15
Number of semester weeks	16
Department responsible	Allied Health Sciences
Course evaluation	Total Marks: 100
Pass requirement	As per the Academic Regulations
Attendance requirement	As per the Academic Regulations

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2. Teaching, Learning and Assessment

1. Course Outcomes (CO)

Upon completion of this course students will be able to:

No.	Intended Learning Outcomes
1.	Describe the basics of qualitative research
2.	Explain different methods of qualitative research including overview of phenomenology and ethnography approaches
3.	Apply techniques of data analysis and interpretation
4.	Develop skills to write a report based on the qualitative data analysis

2. Course Contents:

Unit-1: Philosophy of qualitative research • Epistemology and ontology • Research paradigms • Falsification • Philosophical positions • How to gain a knowledge in qualitative research
Unit-II: Methods of qualitative data collection • Developing questionnaires • Interview • Focus group discussion • Observation • Taking and organizing field notes
Unit-III: Good practices and criteria • Flexibility • Triangulation • Abduction • Need for focusing on details and the context • Contradiction and reflexivity • Theoretical saturation • Adhering to research quality
Unit-IV: Data analysis and interpretation • Transcription and validation of the data • Codes and themes • Orientation of QDA miner lite 2.1 software • Thematic analysis using QDA miner lite 2.1 • Interpretation and reporting

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3. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)												Programme Specific Outcomes (PSOs)			
	PO -1	PO -2	PO -3	PO -4	PO -5	PO -6	PO -7	PO -8	PO -9	PO -10	PO -11	PO -12	PSO -1	PSO -2	PSO -3	PSO -4
CO-1	2	3	3	3	2	3		3	3	3	2	2		2	2	3
CO-2	3	2	2	3		3		1	2	3	2	3	3		1	3
CO-3	1	3	3	2	3	1				1	2	2	1	3		2
CO-4	3	3	3	3	1	3		3	1	3	3	3	2	2		3
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution																

4. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		15
Demonstrations		
1. Demonstration using Videos		
2. Demonstration using Physical		
3. Demonstration on a Computer		
Practical Work		10
Conducting demo interviews and focus	04	
Computer lab (software demonstration)	04	
Demonstrating analysis using a case study	02	
Others		1 8
1. Case Study Presentation	10	
2. Brain Storming Sessions	00	
3. Group Discussions	06	
4. Discussing Possible Innovations	02	
Written Examination		02
Total Duration in Hours		45

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5. Method of Assessment

There are two components for assessment in this Course

Component- 1: 60% weight

Group activity/Case study

Component- 2: 40% weight

Evaluation/MCQs/Report

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The assessment questions are set to test the learning outcomes. In each component, certain learning outcomes are assessed. The following table illustrates the focus of learning outcome in each component assessed:

No.	Intended Learning Outcome	Mode of Assessment	
		Component 1 (CE)	Component 2 (SEE)
1	Understand the basics of qualitative research	X	X
2	Explain different methods of qualitative research including overview of phenomenology and ethnography approaches	X	X
3	Apply techniques of data analysis and interpretation using QDA miner lite -2	X	X
4	Develop skills to write a report based on the qualitative data analysis	X	X

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

6. Achieving learning outcomes

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S.No	Curriculum and Capabilities	How imparted during the course
1.	Knowledge	Class room lectures
2.	Understanding	Class room lectures
3.	Critical Skills	Case study and group discussions
4.	Analytical Skills	Group discussion
5.	Problem Solving Skills	Case discussions
6.	Practical Skills	Case discussions
7.	Group Work	Case study and group discussions
8.	Self-Learning	Assignments/Reports
9.	Written Communication Skills	Examination
10.	Verbal Communication Skills	Group discussions
11.	Presentation Skills	Case discussions

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12.	Behavioral Skills	Group discussion, Case discussions
13.	Information Management	Case discussions
14.	Leadership Skills	Group discussions

3. Course Resources

1. Essential Reading

- https://www.google.co.in/books/edition/Introduction_to_Qualitative_Research_Met/jauBCgAAQBAJ?hl=en&gbpv=1&dq=qualitative+research+methods&printsec=frontcover

2. Recommended Reading

- https://www.google.co.in/books/edition/Qualitative_Research_Methods/lZanDwAAQBAJ?hl=en&gbpv=1&dq=qualitative+research+methods&printsec=frontcover

3. Magazines and Journals

- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6494783/pdf/11133_2019_Article_9413.pdf
- https://ijmedph.org/sites/default/files/IntJMedPublicHealth_2014_4_4_318_144055.pdf
- https://journalofcomprehensivehealth.co.in/jch/article/view/115/92
- https://sci-hub.hkvisa.net/10.1177/1049732320921143

4. Course Organization

Course		Qualitative Research Methods
Course		PHE501A
Course Leader/s Name		
Course Leader Contact Details	**Phone:**	080 – 49065555
	E- mail:	
Course Specifications Approval		
Next Course Specifications Review		

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Master in Public Health (MPH) 2022-2026

SEMESTER 3

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Course Specifications: Global Health

Course Title	Global Health
Course Code	PHC601A
Department	Allied Health Science
Faculty	Faculty of Life and Allied Health Sciences

1. Course Summary

1. Aim and Summary

The course aims to improve students' understanding on the perspectives of global health through education, research, and service from a population-based approach. The students will be able to relate the 21st century challenges of the complex set of demographic patterns, disease burdens, and health policies and its impact on societies of both developed and developing countries. The students will also be exposed to some of the global best practices in the context of health goals related to MDGs and SDGs from across the world.

2. Course Size and Credits:

Number of credits	02
Total hours of class room interaction during the semester	15
Number of practical/tutorial hours	15
Number of semester weeks	16
Department responsible	Allied Health Sciences
Course evaluation	Total Marks: 50
Pass requirement	As per the Academic Regulations
Attendance requirement	As per the Academic Regulations

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2. Teaching, Learning and Assessment

1. Course Outcomes (CO)

Upon completion of this course students will be able to:

No.	Intended Learning Outcomes
1.	Explain major issues in population and global health
2.	Explain the approaches to population health interventions around the world
3.	Explain the health intervention perspective on the economic, social, political, cultural, and ethical considerations that bear on these issues
4.	Critically analyze the policies that affect health and development
5.	Discuss and generate ideas that improve lives and health of people worldwide

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2. Course Contents:

Definitions and scope of global/ international health. Vast diversity of determinants of health and disease

Emerging global health priorities, including infectious diseases, poverty, conflicts and emergencies, health inequity, principles and impact of health systems reforms, and major global initiatives for disease prevention and health promotion. Global health challenges of the next few decades and how science and technology can be harnessed through collective action to address those challenges.

Sustainability Development Goals vs./and evolution from Millennium Development Goals, role of foreign policy and trade in global health

Health care systems in low- and middle-income countries

Global health issues and Knowledge translation in global health

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3. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)												Programme Specific Outcomes (PSOs)			
	PO -1	PO -2	PO -3	PO -4	PO -5	PO -6	PO -7	PO -8	PO -9	PO -10	PO -11	PO -12	PSO -1	PSO -2	PSO -3	PSO -4
CO-1	3				2	2							3			
CO-2	2	3		2						2	2		2	3		
CO-3		3	3	2		2						2	3		3	1
CO-4				3	2	3	1							2		
CO-5			3	2		3		1	1		2	1	3			
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution																

4. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		12
Demonstrations		
9. Demonstration using Videos		
2. Demonstration using Physical Models/ Systems		
3. Demonstration on a Computer		
Numeracy		
1. Solving Numerical Problems		
Practical Work		
1. Course Laboratory		
2. Computer Laboratory		
3. Engineering Workshop/Course Workshop/Kitchen		
4. Clinical Laboratory		
5. Hospital		
6. Model Studio		
Others		
1. Case Study Presentation	06	
2. Guest Lecture		
3. Industry/Field Visit		15
4. Brain Storming Sessions		
5. Group Discussions	09	
6. Discussing Possible Innovations		
Written Examination (Mid-Term tests and SEE)		03
Total Duration in Hours		30

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5. Method of Assessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the MPH Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			Component 2: SEE (40% Weightage)
Subcomponents	SC1	SC2	SC3	SC4
Subcomponent Type	Mid-Term Test	Assignment	Flexible component	100 marks
Maximum Marks	50	25	25	
CO-1	X		X	X
CO-2	X		X	X
CO-3		X	X	X
CO-4		X	X	X
CO-5		X	X	X
The details of SC1, SC2, SC3 or SC4 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

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6. Achieving learning outcomes

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S.No	Curriculum and Capabilities	How imparted during the course
1.	Knowledge	Class room lectures
2.	Understanding	Class room lectures
3.	Critical Skills	Class room lectures
4.	Analytical Skills	Group discussion
5.	Problem Solving Skills	Case discussions
6.	Practical Skills	Case discussions
7.	Group Work	case study and group discussions
8.	Self-Learning	Seminars
9.	Written Communication Skills	Examination
10.	Verbal Communication Skills	Group discussions
11.	Presentation Skills	Seminars, Case discussions
12.	Behavioral Skills	Group discussion, Case discussions
13.	Information Management	Case discussions
15.	Leadership Skills	Group discussions

3. Course Resources

1. Essential Reading

- Birn, A.E., Pillay, Y. & Holtz, T. (2009). Textbook of international health: Global health in a dynamic world, 3rd Ed. Oxford: Oxford University Press
- Murray, C.J.L. (2015). Shifting to Sustainable Development Goals — Implications for Global Health. N Engl J Med. 373;15.
- Merson, M.H., Black, R.E. & Mills, A.J. (2012). International public health: diseases, programs, systems and policies. 3rd Ed. Gaithersburg, Maryland: Aspen Inc.
- Bärnighausen, T., Bloom, D.E. & Humair, S. (2011). Going horizontal - shifts in funding of global health interventions. N Engl J Med. 364(23):2181-3
- Brown, T.M., Cueto, M. & Fee, E. (2006). The World Health Organization and

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- the transition from "international" to "global" public health. Am J Public Health 96:62-72.
- Dooris, M. (2009). Holistic and sustainable health improvement: the contribution of the setting-based approach to health promotion. Perspectives in Public Health, 129:29-36.

2. Recommended Reading

- Fauci, A.A. (2014). Ebola — Underscoring the Global Disparities in Health Care Resources. N Engl J Med 371;12.
- Hunter, D.J. & Fineberg, H.V. (2014). Convergence to common purpose in global health. N Engl J Med. 370(18):1753-5.
- Hettler, D. (2009). Why study public health history? In: Optometric Care within the Public Health Community. Hatch, S Whitener J, McAlister HW, Block S (Editors). New York: Old Post Publishing. [Cited: January 11, 2016]. Available at: http://webpages.charter.net/oldpostpublishing/oldpostpublishing/Section%201,%20Foundations%20of%20Public%20Health/
- Mills, A. (2014). Health Care Systems in Low- and Middle-Income Countries. N Engl J Med.370:552-7.

3. Magazines and Journals

- Bambra, C., Gibson, M., Sowden, A. Wright, K., Whitehead, M. Petticrew, M. (2010). Tackling the wider social determinants of health and health inequalities: Evidence from systematic reviews. J Epidemiol Community Health, 64:4 284-291.
- World Health Organization (2014). Publications on social determinants. Retrieved from http://www.who.int/social_determinants/corner/en/" http://www.who.int/social_determinants/corner/en/
- Yamada, T. (2008). In Search of New Ideas for Global Health. N Engl J Med. 358;13.
- Jain V. (2020). Financing global health emergency response: outbreaks, not agencies. Journal of public health policy, 41(2), 196–205. https://doi.org/10.1057/s41271-019-00207-z
- Penney D. (2020). Ethical Considerations for Short-Term Global Health Projects. Journal of midwifery & women's health, 65(6), 767–776. https://doi.org/10.1111/jmwh.13162
- Brasher, M. I., & Valentine, G. C. (2021). Crossing Boundaries: Mentorship in Global Health. Pediatrics, 147(2), e2020002154. https://doi.org/10.1542/peds.2020-002154

4. Websites

- World Health Organization (2013). WHO film on social determinants of health. Geneva: World Health Organization. [Cited: January 12, 2016]. Available at: http://video.who.int/streaming/csdh/WHA65_film_sdh.wmv

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- United Nations (2016). Sustainable development goals. [Cited January 19, 2016]. Available at: https://sustainabledevelopment.un.org/sdgs
- United Nations (2016). Millennium development goals. [Cited January 19, 2016]. Available at: http://www.un.org/millenniumgoals/

4. Course Organization

Course		Global Health
Course		PHC601A
Course Leader/s Name		
Course Leader Contact Details	**Phone:**	080 – 49065555
	E- mail:	
Course Specifications Approval		
Next Course Specifications Review		

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Course Specifications: Technology in Public Health

Course Title	Technology in Public Health
Course Code	PHC602A
Department	Allied Health Science
Faculty	Faculty of Life and Allied Health Sciences

1. Course Summary

1. Aim and Summary

This course aims at orienting the students to technology utilization in public health. It specifically introduces them to understand different health technology, and informatics tools of public health importance (such as Health Information Systems, EMR, EMR, m- Health and tele-medicine) that facilitates improve healthcare outcomes.

The students will attempt to using technology driven data for identifying and appraising the unmet healthcare needs of the community. They students also explore potential applications and integration opportunities to make the best use of information and communications technologies (ICT) in public health.

2. Course Size and Credits:

Number of credits	03
Total hours of class room interaction during the semester	30
Number of practical/tutorial hours	15
Number of semester weeks	16
Department responsible	Allied Health Sciences
Course evaluation	Total Marks: 100
Pass requirement	As per the Academic Regulations
Attendance requirement	As per the Academic Regulations

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2. Teaching, Learning and Assessment

1. Course Outcomes (CO)

Upon completion of this course students will be able to:

No.	Intended Learning Outcomes
1.	Explain the concepts of health technology and informatics and related tools of public health importance.
2.	Explain the role of technology in assessment of unmet health needs in the community.
3.	Explain the role of technology in planning and monitoring interventions for improving health outcomes.
4.	Demonstrate the ability to manage health data and information effectively and generate valuable insights to facilitate health decision making using health analytics.

2. Course Contents:

Introduction to health technology Concepts and functions of health technology, overview of historical, current, and emerging health information systems; concept of data, information, knowledge and insight and its role in public health decision making process. Health information standards and types of standards (like systems, vocabulary, messaging, and security standards), EHR Standards in India (ISO, DICOM, ICD-11, and SNOMED), Interoperability and levels of interoperability (basic, technical and semantic interoperability), Health data security, privacy and confidentiality
e-Health Tools and Information and Communications Technologies (ICT) in public health Electronic health record (EHR), Electronic Medical Records (EMR), health information systems, health repositories, registries and data bases, enterprise-wide systems, laboratory, radiology (PACs) systems, voice recognition, physician order entry, telemedicine, decision support systems and mHealth.
Health Information Management **Fundamentals of Health Information Management:** Important event in history of medicine and medical documentation, personalities and their contribution to medicine and Health Information Management. Definition, Goals & Objective, Characteristics, Purpose, Values of Health Information Management to the various users. **Numbering System of Health Information Management:** Definition, merits and demerits of Unit, Serial, Units Serial numbering system. **Filing system of Health Information Management:** Definition, merits and demerits

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of Straight, Middle and Terminal Digit fling system. **Format of Health Information Management:** Definition, Format, Advantages & Disadvantages of Source oriented Health Information Management, Integrated Health Information Management, Problem oriented Health Information Management **Contents of Health Information Management and form designing:** Definition, Purpose and Contents of various forms used to document the patient health information. Various rules involve in form designing
Indexes and Registers: Definition, Format and Uses of: Master Patient Index Card, Disease Index Card, Physician Index Card, Operation Index Card, Various Registers used for the maintenance of patient information (hospital, population registries and disease specific registries in India). **Computerization of Health Information System:** Needs of computerization, Process involved in computerization, Advantage and Disadvantages
Introduction to Health Analytics (BA): Data and Big Data, Nature of Big Data and its importance, Importance of Health Analytics, Introduction to Descriptive Analytics, Predictive Analytics, Prescriptive Analytics and their applications in public health.

3. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)												Programme Specific Outcomes (PSOs)			
	PO -1	PO -2	PO -3	PO -4	PO -5	PO -6	PO -7	PO -8	PO -9	PO -10	PO -11	PO -12	PSO -1	PSO -2	PSO -3	PSO -4
CO-1	3		2	1		2							3			
CO-2	2	3				2	2			1			2	3		2
CO-3			3				2		1			2		3	3	2
CO-4			2	2	3	2		1								3
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution																

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4. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		21
Demonstrations		
10. Demonstration using Videos		
2. Demonstration using Physical Models/ Systems		
3. Demonstration on a Computer		
Numeracy		
1. Solving Numerical Problems		
Practical Work		
1. Course Laboratory		
2. Computer Laboratory		
3. Engineering Workshop/Course Workshop/Kitchen		
4. Clinical Laboratory		
5. Hospital		
6. Model Studio		
Others		
1. Case Study Presentation	04	
2. Guest Lecture		
3. Industry/Field Visit		19
4. Brain Storming Sessions		
5. Group Discussions	14	
6. Discussing Possible Innovations	01	
Written Examination (Mid-Term tests and SEE)		05
Total Duration in Hours		45

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5. Method of Assessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the MPH Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

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Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			Component 2: SEE (40% Weightage)
Subcomponents	SC1	SC2	SC3	SC4
Subcomponent Type	Mid-Term Test	Assignment	Flexible component	100 marks
Maximum Marks	50	25	25	
CO-1	X		X	X
CO-2	X		X	X
CO-3		X	X	X
CO-4		X	X	X
The details of SC1, SC2, SC3 or SC4 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

6. Achieving learning outcomes

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S.No	Curriculum and Capabilities	How imparted during the course
1.	Knowledge	Class room lectures
2.	Understanding	Class room lectures
3.	Critical Skills	Class room lectures
4.	Analytical Skills	Group discussion
5.	Problem Solving Skills	Case discussions
6.	Practical Skills	Case discussions
7.	Group Work	case study and group discussions
8.	Self-Learning	Seminars

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9.	Written Communication Skills	Examination
10.	Verbal Communication Skills	Group discussions
11.	Presentation Skills	Seminars, Case discussions
12.	Behavioral Skills	Group discussion, Case discussions
13.	Information Management	Case discussions
15.	Leadership Skills	Group discussions

3. Course Resources

1. Essential Reading

- Murthy Technology and Global Public Health (2020). Springer Publications
- Health Information: Management of a Strategic Resource (2011). 4th Ed. Elsevier Publications

2. Recommended Reading

- Cook (2007). Cook & Hussey's Assistive Technologies: Principles and Practice. 3rd Ed. Elsevier Publications

3. Magazines and Journals

- Health and Technology https://www.springer.com/journal/12553/
- Global and Regional Health Technology Assessment https://journals.sagepub.com/home/grha

4. Websites

- https://www.who.int/health-technology-assessment/en/
- http://origin.searo.who.int/publications/journals/seajph/media/2012/seajph_v1n2/whoseajphv1i2p125.pdf
- National e-Health Authority https://www.nhp.gov.in/national_eHealth_authority_nehamtl

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4. Course Organization

Course		Technology in Public Health
Course		PHC602A
Course Leader/s Name		
Course Leader Contact Details	**Phone:**	080 – 49065555
	E- mail:	
Course Specifications Approval		
Next Course Specifications Review		

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Approved by the Academic Council at its 26th meeting held on 14 July 2022

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Course Specifications: Programme Planning and Evaluation

Course Title	Programme Planning and Evaluation
Course Code	PHC603A
Department	Allied Health Science
Faculty	Faculty of Life and Allied Health Sciences

1. Course Summary

1. Aim and Summary

This course focuses on the fundamentals of health program planning, design, implementation, monitoring and evaluation. It will train students understand the concepts of need, demand and supply of healthcare services that is generally examined through a combination of academic, programmatic a evidence-based research approaches.

Specifically, t students will be trained to conduct needs assessment that would address health inequalities. It would also enable them better understand important elements of health program planning and evaluation, considered as essential competencies for public health professionals. In addition, students will gain a basic understanding of utilizing different tools and techniques necessary t implement and monitoring public health programmes as well as evaluate their effectiveness.

2. Course Size and Credits:

Number of credits	03
Total hours of class room interaction during the semester	30
Number of practical/tutorial hours	15
Number of semester weeks	16
Department responsible	Allied Health Sciences
Course evaluation	Total Marks: 100
Pass requirement	As per the Academic Regulations
Attendance requirement	As per the Academic Regulations

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2. Teaching, Learning and Assessment

1. Course Outcomes (CO)

Upon completion of this course students will be able to:

No.	Intended Learning Outcomes
1.	Describe and apply key approaches and methods for conducting a systematic health needs assessment.
2.	Discuss the key concepts of health programme planning, design, implementation, monitoring and evaluation
3.	Devise an appropriate plan for monitoring and evaluating health programmes.

2. Course Contents:

Introduction

- Overview of programme planning, implementation, monitoring and evaluation Setting context of health programme planning
- Relevance, diversity and disparities in health programmes
- Logical framework and concepts related to monitoring and evaluation
- Ethical consideration in programme planning and evaluation

Defining health problems and planning

- Concept, definition of planning and types of planning
- Approaches to health planning
- Health planning cycle, steps and stages

Community health assessment for programme planning

- The ecological model
- Epidemiological model
- Social model

Planning –developing initiatives

- Goals objectives, indicators and targets
- Theories related to change
- Purposes and process in planning
- Setting up of the intervention
- Criteria of good intervention
- Functions of programme theory

Implementation, monitoring and evaluation of health programmes

- Program implementation
- Services orientation

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- Measuring inputs, process, output and outcome
- Types of evaluation (Formative, terminal and process evaluation)
- Assessing the implementation

Outcome and impact evaluation of health programmes

- Developing evaluation question
- Choosing appropriate design for effective evaluation
- Application and sampling design and data source for evaluation
- Role and responsibilities of the health programme planning evaluator

3. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)												Programme Specific Outcomes (PSOs)			
	PO -1	PO -2	PO -3	PO -4	PO -5	PO -6	PO -7	PO -8	PO -9	PO -10	PO -11	PO -12	PSO -1	PSO -2	PSO -3	PSO -4
CO-1	3		2	1		2		1					3			
CO-2	2	3		2		2	2			1			2	3		2
CO-3		1	3	2	1	2	2		1		1	2		3	3	2
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution																

4. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		21
Demonstrations		
11. Demonstration using Videos		
2. Demonstration using Physical Models/ Systems		
3. Demonstration on a Computer		
Numeracy		
1. Solving Numerical Problems		
Practical Work		
1. Course Laboratory		
2. Computer Laboratory		
3. Engineering Workshop/Course Workshop/Kitchen		
4. Clinical Laboratory		
5. Hospital		
6. Model Studio		
Others		
1. Case Study Presentation	04	
2. Guest Lecture		
3. Industry/Field Visit		19
4. Brain Storming Sessions		
5. Group Discussions	14	
6. Discussing Possible Innovations	01	

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Written Examination (Mid-Term tests and SEE)	05
Total Duration in Hours	45

5. Method of Assessment

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Subcomponents	SC1	SC2	SC3	SC4
Subcomponent Type	Mid-Term Test	Assignment	Flexible component	100 marks
Maximum Marks	50	25	25	
CO-1	X		X	X
CO-2	X		X	X
CO-3		X	X	X
CO-4		X	X	X
CO-5		X	X	X
The details of SC1, SC2, SC3 or SC4 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

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6. Achieving learning outcomes

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

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2.	Understanding	Class room lectures
3.	Critical Skills	Class room lectures
4.	Analytical Skills	Group discussion
5.	Problem Solving Skills	Case discussions
6.	Practical Skills	Case discussions
7.	Group Work	case study and group discussions
8.	Self-Learning	Seminars
9.	Written Communication Skills	Examination
10.	Verbal Communication Skills	Group discussions
11.	Presentation Skills	Seminars, Case discussions
12.	Behavioral Skills	Group discussion, Case discussions
13.	Information Management	Case discussions
15.	Leadership Skills	Group discussions

3. Course Resources

1. Essential Reading

- Hodges, Bonni C, DM Videto. (2005) Assessment and Planning in Health Programs. Jones and Bartlett Press
- Michele Issel L, Health Program Planning and Evaluation: A Practical, Systematic Approach for community health
- Michele Issel, Rebecca Wells L. Health Program Planning and Evaluation
- Karen Marie Perrin, Essentials of Planning and Evaluation for Public Health
- Andrew Green, An Introduction to Health Planning for Developing Health Systems
- McKenzie J.F, Neiger B.L & Thackeray R (2017). Planning, Implementing and Evaluating Health Promotion Programs: A Primer, 7th Edition, Pearson Pub.

2. Recommended Reading

- Davenport C, Mathers J, Parry J. (2006). Use of health impact assessment in incorporating health considerations in decision-making. Journal of Epidemiology and Community Health. 60(3):196-201. Fielding JE, Briss PA. (2006). Promoting evidence-based public health policy: can we have better evidence and more action? Health Affairs. 25(4):969-78.
- Forsberg B, Hansson HC, Johansson C, Areskoug H, Persson K, Jarvholm B.(2004) Prospects for health impact assessment in the United States: new and improved environmental impact assessment or something different? Journal of Health, Politics, Policy and the Law.29(6):1153-86.
- Julian DA, Clapp J. (2000) "Planning, investment and evaluation procedures to support coordination and outcomes based funding in a local United Way system" Evaluation and Program Planning. 23: 231-240.
- Krieger N et al. (2003). Assessing health impact assessment: multidisciplinary and international perspectives. Journal of Epidemiology and Community Health. 53(9):659- 662.
- Leviton L, Finnegan JR, Zapka JG, Meischke H, et al. (1999) "Formative research methods to understand patient and provider responses to heart attack symptoms" Evaluation and Program Planning. 22: 385-397.
- Mindell J, Sheridan L, Joffe M, Samson-Barry H, Atkinson S.(2004) Health impact assessment as an agent of policy change: improving the health impacts of the mayor of London's draft transport strategy. Journal of Epidemiology and Community Health. 58(3):169-74.
- Robinson. KL, Dreidger MS, Elliott SJ, Eyles J. (2006). "Understanding Facilitators of and Barriers to Health Promotion Practice" Health Promotion Practice. 7(4):467-476
- Owen, J .M (2006) Evaluation forms and approaches in Program evaluation: forms and approaches, 3rd edition, Allen and Unwin, Sydney. [A must read book for program evaluation specialists].

3. Magazines and Journals

- Evaluation and Program Planning :An International Journal https://www.journals.elsevier.com/evaluation-and-program-planning/

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4. Websites

- Program Performance and Evaluation Office (PPEO)-CDC https://www.cdc.gov/program/planning/index.htm
- Program Planning Resource : The Community Guide https://www.thecommunityguide.org/content/program-planning-resource

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4. Course Organization

Course		Programme Planning and Evaluation
Course		PHC603A
Course Leader/s Name		
Course Leader Contact Details	**Phone:**	080 – 49065555
	E- mail:	
Course Specifications Approval		
Next Course Specifications Review		

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Course Specifications: Demography and Population Sciences

Course Title	Demography and Population Sciences
Course Code	PHC604A
Department	Allied Health Science
Faculty	Faculty of Life and Allied Health Sciences

1.

1. Course Summary

1. Aim and Summary

This course aims to equip students with an understanding of the techniques and tools of demographic analysis and to provide analytical skills on demography and vital statistics coupled with a thorough knowledge about the past, present and future population scenario of the world and India, the various demographic events and processes that shape the population size and structure, factors affecting population and its determinants.

2. Course Size and Credits:

Number of credits	02
Total hours of class room interaction during the semester	15
Number of practical/tutorial hours	15
Number of semester weeks	16
Department responsible	Allied Health Sciences
Course evaluation	Total Marks: 50
Pass requirement	As per the Academic Regulations
Attendance requirement	As per the Academic Regulations

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2. Teaching, Learning and Assessment

1. Course Outcomes (CO)

Upon completion of this course students will be able to:

No.	Intended Learning Outcomes
1.	Define the concepts in demography
2.	Compare the demographic data and vital statistics of different countries.
3.	Select appropriate methods for data collection, analysis and interpretation of demographic data
4.	Discuss the determinants and calculation of various measures of fertility , mortality, migration, urbanization and population projection
5.	Critically analyze the challenges related to demography

2. Course Contents:

Introduction • Concepts of Population and Development • Meaning and component of demography and population science • Nature, concepts and scope of demography • Demographic profile of India
Demographic data (Vital statistics) • Uses of vital statistics • Mechanism for collection of vital statistics • Census, vital statistics, sample registration system, sample surveys and demographic estimation • Basic formula for calculation of vital statistics • Standardized death rates and Life tables
Demographic growth and change • Demographic transition • Demographic measures, Population size ,structure and its composition • Growth, characteristics and distribution of Population • Demographic trends in the age and sex structure of the population of world and in India • Components of population change • Demographic problem and policy

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Fertility and mortality measures
• Concepts, definition, trends, determinants and measurement of fertility, mortality, migration, urbanization and population projection • Fertility and its measures • Mortality and its measures • Measures of population projection • Implication of fertility, mortality in population health • Ethical and legal aspects of health demography

3. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)												Programme Specific Outcomes (PSOs)			
	PO -1	PO -2	PO -3	PO -4	PO -5	PO -6	PO -7	PO -8	PO -9	PO -10	PO -11	PO -12	PSO -1	PSO -2	PSO -3	PSO -4
CO-1	3		2	1		2							3		2	1
CO-2	2	3		2		2	2			1			2	3		2
CO-3			3	2	1	2	2		1		1	2			3	2
CO-4			3		3	2									3	
CO-5		3		3	3	3	1	1	1	1	3	1		3		2
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution																

4. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		08
Demonstrations		
12. Demonstration using Videos		
2. Demonstration using Physical Models/ Systems		
3. Demonstration on a Computer		
Numeracy		
1. Solving Numerical Problems		
Practical Work		
1. Course Laboratory		
2. Computer Laboratory		
3. Engineering Workshop/Course Workshop/Kitchen		
4. Clinical Laboratory		
5. Hospital		
6. Model Studio		

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Others		19
1. Case Study Presentation	04	
2. Guest Lecture		
3. Industry/Field Visit	05	
4. Brain Storming Sessions	02	
5. Group Discussions	08	
6. Discussing Possible Innovations		
Written Examination (Mid-Term tests and SEE)		03
Total Duration in Hours		30

5. Method of Assessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the MPH Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE) or subcomponent of CE (SC1, SC2 or SC3), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation				
	Component 1: CE (60% Weightage)			**Component 2: SEE (40% Weightage)**
Subcomponents	**SC1**	**SC2**	**SC3**	**SC4**
Subcomponent Type	**Mid-Term Test**	**Assignment**	**Flexible component**	**100 marks**
Maximum Marks	**50**	**25**	**25**	
CO-1	X		X	X
CO-2	X		X	X
CO-3		X	X	X
CO-4		X	X	X
CO-5		X	X	X
The details of SC1, SC2, SC3 or SC4 are presented in the Programme Specifications Document.				

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

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Course reassessment policies are presented in the Academic Regulations document.

6. Achieving learning outcomes

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S.No	Curriculum and Capabilities	How imparted during the course
1.	Knowledge	Class room lectures
2.	Understanding	Class room lectures
3.	Critical Skills	Class room lectures
4.	Analytical Skills	Group discussion
5.	Problem Solving Skills	Case discussions
6.	Practical Skills	Case discussions
7.	Group Work	case study and group discussions
8.	Self-Learning	Seminars
9.	Written Communication Skills	Examination
10.	Verbal Communication Skills	Group discussions
11.	Presentation Skills	Seminars, Case discussions
12.	Behavioral Skills	Group discussion, Case discussions
13.	Information Management	Case discussions
15.	Leadership Skills	Group discussions

3. Course Resources

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1. Essential Reading

- Agarwal S.N : India's population problems, Tata McGrew Hill, New Delhi
- Rao NSN : Elements of health statistics, Tata book agency, Varanasi
- Park K : Text book of preventive and social medicine, M/s Banarasidas, Jabalpur
- Barclay G.W. : Techniques of population analysis, Wiley, New York
- Sundar Rao P.S.S , J.Richard Introduction to biostatistics and research methods
- Venkatachalam P.S. Nutrition for mother and child, ICMR, New Delhi. • Gaopalan C and Chatterjee : Use of growth chart for promoting child nutrition
- Jay Weinstein ,vijaya K Pullai ,Demography , the science of population

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- Sinhe .IE Zachara , Elements of demography
- Kedar Nath Ram Nath , Social demography and population studies

2. Recommended Reading

- Springer Series on Demographic Methods and Population Analysis: Ed.: Land, Kenneth C. "The Plenum Series on Demographic Methods and Population Analysis" Durham
- Bouge Donald : Principles of Demography, Johnwiley & Sons, New York
- Srivastava S.C : Studies in Demography, Jai Prakashnath & Co, Subash Bazar, Meerut, India
- Asha A Bhende & Thara Kanitkar : Principles of population studies, Himalaya Publishing Hse.

3. Magazines and Journals

- Demography –Springer's https://www.springer.com/journal/13524
- Journal of Demographic economics https://www.cambridge.org/core/journals/journal-of-demographic-economics
- Demographic Research: https://www.demographic-research.org

4. Websites

- WHO: Demography and Epidemiology(WHO and Regions) https://www.who.int/choice/demography/pop_death_rates/en/
- WHO :Health Workforce Demography https://www.who.int/hrh/news/2017/hwf_demography-award/en/

4. Course Organization

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Course		Demography and Population Sciences
Course		PHC604A
Course Leader/s Name		
Course Leader Contact Details	**Phone:**	080 – 49065555
	E- mail:	
Course Specifications Approval		
Next Course Specifications Review		

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Course Specifications: Project work

Course Title	Project Work
Course Code	PHP605A
Department	Allied Health Science
Faculty	Faculty of Life and Allied Health Sciences

I. Course Summary

1. Aim and Summary

This Course is intended to apply and synergize the learning outcomes of MPH programme through a group project. The group project will focus on the application of appropriate tools and techniques for the development of public health practices and the use of relevant university resources for definition and execution of the project. The group project will enable the students to apply the theoretical and practical aspects of community-based or health-facility survey and work on public health relevance to understand and explore the implementation of National Health Programs at the health-facility and household levels.

2. Course Size and Credits:

Number of credits	05
Total hours of practical/field interaction during the semester	150
Number of practical/tutorial hours	00
Number of semester weeks	16
Department responsible	Allied Health Sciences
Course evaluation	Total Marks: 150
Pass requirement	As per the Academic Regulations
Attendance requirement	As per the Academic Regulations

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II. Teaching, Learning and Assessment

3. Course Outcomes (CO)

Upon completion of this course students will be able to:

No.	Intended Learning Outcomes
1.	Work in a team and undertake a project in the area of community-based or health-facility survey
2.	Apply the principles and practice of public health in executing the project
3.	Apply appropriate research methodology and techniques while formulating a project
4.	Develop and implement the principles of planning and undertake a project while working in a group
5.	Develop a report which describes the project and the work undertaken, followed by preparation of a presentation and documentation of the work

4. Course Contents:

- A National Health Program to be worked upon by each group (as per prior confirmation)
- Visit to the primary health center, district hospital, Anganwadi and school andinteraction with the concerned staff, frontline workers and people at the villageand household levels.
- Procurement of relevant data based on the respective National Health Programfrom the records, registers and interviews.
- Critical evaluation of the activities undertaken at various facilities in comparison to the National Health Program guidelines.
- Preparation of recommendations based on a comparison between the collected
data and evidence through review of literature.

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5. Course Map (CO-PO-PSO Map)

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	Programme Outcomes (POs)												Programme Specific Outcomes (PSOs)			
	PO -1	PO -2	PO -3	PO -4	PO -5	PO -6	PO -7	PO -8	PO -9	PO -10	PO -11	PO -12	PSO -1	PSO -2	PSO -3	PSO -4
CO-1	3	2	1	3	3	3	3	3	3	3	3	3	3	3	3	3
CO-2	3	1		2	3	2	2	3	2	2		2	2			1
CO-3	3	3	2	3	3	1	2	3	2			2	3			2
CO-4	3	3	1	2	3	3		3	3	3	3	2	3	3	3	1
CO-5	2	2	3	3	2			2	3	3	2	2	1	2	3	2
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution																

6. Course Teaching and Learning Methods

Topics	Teaching methods	Hours
Critical Review, Problem Formulation and stating Objectives	Reading Journal papers, books and Other relevant materials and problemformulation	45
	Presentation to Reviewers	06
Design	Group work with supervisor's guidance	20
Analysis	Group work with supervisor's guidance	20
Evaluation	Group work with supervisor's guidance	20
Drawing Conclusions	Group work with supervisor's guidance	12
Presentation, Report Writingand Viva Voce	Presentation and Viva voce-Group	11
	Report writing- Group	12
Tests/Examinations/Presentations		04
	Total	150

7. Method of Assessment

There are two components for assessment in this Course:

Component- 1: 60% weight
Presentations

Component- 2: 40% weight
Project Report

The assessment questions are set to test the learning outcomes. In each component, certain learning outcomes are assessed. The following table illustrates the focus of learning outcome ineach component assessed:

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No.	Intended Learning Outcome	Mode of Assessment	
		Component 1 (CE)	Component 2 (SEE)
1	Work in a team and undertake a projectin the area of community-based or health-facility survey	X	X
2	Apply the principles and practice of public health in executing the project	X	X
3	Apply appropriate research methodologyand techniques while formulating a project	X	X
4	Develop and implement the principles of planning and undertake a project while working in a group	X	X
5	Develop a report which describes the project and the work undertaken, followed by preparation of a presentation and documentation of the work	X	X

8. Achieving learning outcomes

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S.No	Curriculum and Capabilities	How imparted during the course
1.	Knowledge	Group Project work
2.	Understanding	Group Project work
3.	Critical Skills	Group Project work
4.	Analytical Skills	Group Project work
5.	Problem Solving Skills	Group Project work
6.	Practical Skills	Group Project work
7.	Group Work	Group Project work
8.	Self-Learning	Group Project work
9.	Written Communication Skills	Report writing
10.	Verbal Communication Skills	Presentation

11.	Presentation Skills	Presentation
12.	Behavioral Skills	Group Project work
13.	Information Management	Group Project work
14.	Leadership Skills	Effective management of learning, time management and achieving the learning

III. Course Resources

Assigned reading relevant to group project

IV. Course Organization

Course		Project Work
Course		PHP605A
Course Leader/s Name		
Course Leader Contact Details	**Phone:**	080 – 49065555
	E- mail:	
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Next Course Specifications Review		

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Course Specifications: Implementation Science (Health Programme Design, Planning, Implementation, Monitoring & Evaluation)

Course Title	Implementation Science (Health Programme Design, Planning, Implementation, Monitoring & Evaluation)
Course Code	PHE601A
Department	Allied Health Science
Faculty	Faculty of Life and Allied Health Sciences

1. Course Summary

1. Aim and Summary

Background: As healthcare systems work under increasingly dynamic and resource-constrained conditions, evidence-based strategies are essential in order to ensure that research investments maximize healthcare value and improve public health. Implementation science plays a critical role in supporting these efforts. Implementation science incorporates a scope broader than traditional clinical research, focusing not only at the patient level but also at the provider, organization, and policy levels of healthcare. It is significant in trans-disciplinary research that include members such as health services researchers; economists; sociologists; anthropologists; organizational scientists; and operational partners including administrators, front-line clinicians, and patients.
Objectives: This course presents the designing, planning, implementation, monitoring and evaluation of health programs in clinical and public health. In addition, participants will be introduced to the process of developing research frameworks, study designs and measures appropriate for implementation science.

2. Course Size and Credits:

Number of credits	03
Total hours of class room interaction during the semester	30
Number of practical/tutorial hours	15
Number of semester weeks	16
Department responsible	Allied Health Sciences
Course evaluation	Total Marks: 100
Pass requirement	As per the Academic Regulations
Attendance requirement	As per the Academic Regulations

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2. Teaching, Learning and Assessment

1. Course Outcomes (CO)

Upon completion of this course students will be able to:

No.	Intended Learning Outcomes
1.	Discuss implementation science as a field of practice and research, and its potential impact for producing improved health outcomes.
2.	Appraise the strengths and limitations of methods of program design including participatory and co-design for implementation, and experimental and quasi-experimental trial designs when evaluating real-world strategies.
3.	Identify and use appropriate methods for evaluating implementation of evidence-based intervention in diverse settings and populations.
4.	Describe and develop research frameworks, study designs and measures appropriate for implementation science.
5.	Apply the development of research frameworks, study designs and measures appropriate for implementation science in National Health Program implementation.

2. Course Contents:

1. Introduction to implementation science including case study
   - Process of translating research into practice (Process models)
   - Factors influencing implementation outcomes (Determinant frameworks, Classic theories, Implementation theories)
   - Evaluation of implementation (Evaluation frameworks)
2. Study designs to assess impact and measure effectiveness
   - Simple pre-post designs, interrupted time series, difference in differences
   - Experimental designs in Implementation science
   - Design, sample size and analysis considerations
3. Qualitative methods
   - Elicit stakeholder centered perspectives
   - Inform design and implementation
   - Understand contexts across diverse settings
   - Provide documentation and encourage reflection on implementation process
   - Gain insight into implementation effectiveness
   - Understand mechanisms of change
   - Contribute to theoretical development
4. Operations research as a contributing discipline
   - Structuring implementation problems
   - Prospective evaluation of improvement interventions
   - Strategic reconfiguration of health services
5. Gap analysis
6. Developing implementation strategies
   - Evaluating implementation strategies

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3. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)												Programme Specific Outcomes (PSOs)			
	PO -1	PO -2	PO -3	PO -4	PO -5	PO -6	PO -7	PO -8	PO -9	PO -10	PO -11	PO -12	PSO -1	PSO -2	PSO -3	PSO -4
CO-1	3	1					3	1	2		3		3		2	
CO-2			3	3	2		1				1			2		1
CO-3	2	3	3	3	3		3	3	2	1			3	1	2	
CO-4		1		1		1			1		1		1		1	1
CO-5	3	2	3	2		3	2	2	2		2	2	2		2	2
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution																

4. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		12
Demonstrations		
13. Demonstration using Videos		
2. Demonstration using Physical Models/ Systems		
3. Demonstration on a Computer		
Numeracy		
1. Solving Numerical Problems		
Practical Work		
1. Course Laboratory		
2. Computer Laboratory		
3. Engineering Workshop/Course Workshop/Kitchen		
4. Clinical Laboratory		
5. Hospital		
6. Model Studio		
Others		
1. Case Study Presentation	05	
2. Guest Lecture		
3. Industry/Field Visit		30
4. Brain Storming Sessions	05	
5. Group Discussions	20	
6. Discussing Possible Innovations		
Written Examination (Mid-Term tests and SEE)		03
Total Duration in Hours		45

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5. Method of Assessment

There are two components for assessment in this Course:

Component- 1: 60% weight
Group activity/Case study
Component- 2: 40% weight
Evaluation/MCQs/Report

The assessment questions are set to test the learning outcomes. In each component, certain learning outcomes are assessed. The following table illustrates the focus of learning outcome in each component assessed:

No.	Intended Learning Outcome	Mode of Assessment	
		Component 1 (CE)	Component 2 (SEE)
1	Discuss implementation science as a field of practice and research, and its potential impact for producing improved health outcomes.	X	X
2	Appraise the strengths and limitations of methods of program design including participatory and co-design for implementation, and experimental and quasi-experimental trial designs when evaluating real-world strategies.	X	X
3	Identify and use appropriate methods for evaluating implementation of evidence-based intervention in diverse settings and populations.	X	X
4	Describe and develop research frameworks, study designs and measures appropriate for implementation science.	X	X
5	Apply the development of research frameworks, study designs and measures appropriate for implementation science in National Health Program implementation.	X	X

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The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

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6. Achieving learning outcomes

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S.No	Curriculum and Capabilities	How imparted during the course
1.	Knowledge	Class room lectures
2.	Understanding	Class room lectures
3.	Critical Skills	Case study and group discussions
4.	Analytical Skills	Group discussion
5.	Problem Solving Skills	Case discussions
6.	Practical Skills	Case discussions
7.	Group Work	Case study and group discussions
8.	Self-Learning	Assignments/Reports
9.	Written Communication Skills	Examination
10.	Verbal Communication Skills	Group discussions
11.	Presentation Skills	Case discussions
12.	Behavioral Skills	Group discussion, Case discussions
13.	Information Management	Case discussions
14.	Leadership Skills	Group discussions

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3. Course Resources

1. Essential Reading

- PhD, B. W. J., PhD, S. K., & PhD, C. L. C. (2022). Practical Implementation Science: Moving Evidence into Action (1st ed.). Springer Publishing Company.

2. Recommended Reading

- Linfield, K. J., & Posavac, E. J. (2018). Program Evaluation: Methods and Case Studies (9th ed.). Routledge.

3. Magazines and Journals

- BMC Public Health https://bmcpublichealth.biomedcentral.com/
- Ridde, V., Pérez, D., & Robert, E. (2020). Using implementation science theories and frameworks in global health. BMJ global health, 5(4), e002269. https://doi.org/10.1136/bmjgh-2019-002269

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- Brown, M., Rosenthal, M., & Yeh, D. D. (2021). Implementation Science and Nutrition: From Research to Practice. Nutrition in clinical practice : official publication of the American Society for Parenteral and Enteral Nutrition, 36(3), 586–597. https://doi.org/10.1002/ncp.10677
- Schwartz, R., & Moore, J. B. (2021). Implementation Science in Practice. Journal of public health management and practice : JPHMP, 27(2), 100–101. https://doi.org/10.1097/PHH.0000000000001241
- Miller, C. J., Smith, S. N., & Pugatch, M. (2020). Experimental and quasi-experimental designs in implementation research. Psychiatry research, 283, 112452. https://doi.org/10.1016/j.psychres.2019.06.027

4. Websites

- https://www.who.int

4. Course Organization

Course		Implementation Science (Health Programme Design, Planning, Implementation, Monitoring & Evaluation)
Course		PHE601A
Course Leader/s Name		
Course Leader Contact Details	**Phone:**	080 – 49065555
	E- mail:	
Course Specifications Approval		
Next Course Specifications Review		

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Course Specifications: Dissertation Part I

Course Title	Dissertation
Course Code	PHP606A
Department	Allied Health Science
Faculty	Faculty of Life and Allied Health Sciences

1. Course Summary

1. Aim and Summary

The aim of this Course is to encourage and develop skills in identification of a research problem, application of principles of research methodology and preparation of research project proposal.

2. Course Size and Credits:

Number of credits	3
Total hours of class room interaction during the semester	00
Number of practical/tutorial hours	90
Number of semester weeks	16
Department responsible	Allied Health Sciences
Course evaluation	Total Marks: 200
Pass requirement	As per the Academic Regulations
Attendance requirement	As per the Academic Regulations

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2. Teaching, Learning and Assessment

1. Course Outcomes (CO)

Upon completion of this course students will be able to:

No.	Intended Learning Outcomes
1.	Review scholarly literature collected from various sources critically for the dissertation project purpose and formulate a research problem of public health importance.
2.	Prepare and present a research proposal (as per the prescribed format of the Department) in a scholarly seminar within the Department/Faculty.

2. Course Contents:

Dissertation

- Setting the context for research
- Literature review
- Problem formulation and statement
- Developing research questions, objectives and hypotheses

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3. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)												Programme Specific Outcomes (PSOs)			
	PO -1	PO -2	PO -3	PO -4	PO -5	PO -6	PO -7	PO -8	PO -9	PO -10	PO -11	PO -12	PSO -1	PSO -2	PSO -3	PSO -4
CO-1	3		2	1		2							3			
CO-2	2	3		2		2	2			1			2	3		
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution																

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4. Course Teaching and Learning Methods

Topics	Teaching methods
Literature review, Problem formulation and definition	Reading Journal papers, books and other relevant materials and problem formulation
	Presentation to Reviewers
Use of conceptual models and frameworks	Individual work with supervisors' guidance
Problem solving and Evaluation	Individual work with supervisors' guidance
Results and Discussions	Individual work with supervisors' guidance
Conclusion and suggestions for further work	Individual work with supervisors' guidance
Presentation, thesis/report writing and viva-voce, authoring research paper	Presentation and Viva voce
	Thesis/Report writing, Authoring research paper

5. Method of Assessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the MPH Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation		
Subcomponents	Component 1: PROJECT REPORT AND DIARY (60% Weightage)	Component 2: PRESENTATION/POSTER (40% Weightage)
Subcomponent Type	CE	SEE
Maximum Marks	200	200
CO-1	X	X
CO-2	X	X
CO-3	X	X
CO-4	X	X
CO-5	X	X
CO-6	X	X

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The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

6. Achieving learning outcomes

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S.No	Curriculum and Capabilities	How imparted during the course
1.	Knowledge	Dissertation
2.	Understanding	Dissertation
3.	Critical Skills	Dissertation
4.	Analytical Skills	Dissertation
5.	Problem Solving Skills	Dissertation
6.	Practical Skills	Dissertation
7.	Group Work	Dissertation
8.	Self-Learning	Dissertation
9.	Written Communication Skills	Report writing
10.	Verbal Communication Skills	Presentation
11.	Presentation Skills	Presentation
12.	Behavioral Skills	Dissertation
13.	Information Management	Dissertation report
14.	Leadership Skills	Dissertation

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3. Course Resources

- Lecture Sessions on Dissertation, Thesis Preparation delivered by the concerned Head of Dept
- Research Papers and Desk Review (relevant to research)
- A GUIDE TO WRITING YOUR MASTERS DISSERTATION - https://www2.hw.ac.uk/sml/postgraduate/downloads/dissertations/dissertationguide.pdf

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- Writing a dissertation - https://www2.le.ac.uk/offices/ld/all-resources/writing/writing- resources/writing-dissertation
- Plagiarism checkers
  - https://www.grammarly.com/plagiarism-checker
  - https://www.duplichecker.com/

4. Course Organization

Course		Dissertation
Course		PHP606A
Course Leader/s Name		
Course Leader Contact Details	**Phone:**	080 – 49065555
	E- mail:	
Course Specifications Approval		
Next Course Specifications Review		

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Master in Public Health (MPH)
2022-2026

SEMESTER 4

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Course Specifications: Evidence Synthesis (Systematic Review And Meta-Analysis)

Course Title	Evidence Synthesis (Systematic Review and Meta-Analysis)
Course Code	PHE602A
Department	Allied Health Science
Faculty	Faculty of Life and Allied Health Sciences

1. Course Summary

1. Aim and Summary

Background: The evidence for making policy, program and practice decisions is best based on careful analyses and syntheses of multiple studies. These may be studies of the same topic such as maternal health and poverty, or across several areas of a single disease, e.g., COVID-19.
The use of systematic reviews and meta-analyses can be conducted across variety of questions: What is the extent of the problem? Which risk and protective factors are associated with specific conditions? How acceptable are certain interventions in different populations? Which interventions have been rigorously evaluated with what results? What works best, for whom, under what conditions, and what cost?

Objectives: This course presents the scientific principles, methods, analysis, and reporting standards that guide the process of evidence synthesis using systematic reviews, evidence gap maps, meta-analysis, meta-regression, and network meta-analysis in clinical and public health. In addition, participants will be introduced to the process of registering titles and protocols and conducting reviews and work in groups to produce reviews for publication.

2. Course Size and Credits:

Number of credits	03
Total hours of class room interaction during the semester	30
Number of practical/tutorial hours	15
Number of semester weeks	16
Department responsible	Allied Health Sciences
Course evaluation	Total Marks: 100
Pass requirement	As per the Academic Regulations
Attendance requirement	As per the Academic Regulations

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2. Teaching, Learning and Assessment

1. Course Outcomes (CO)

Upon completion of this course students will be able to:

No.	Intended Learning Outcomes
1.	Explain the principles and methods of research synthesis and steps in conducting systematic reviews and meta-analysis
2.	Explain the common sources of bias and errors in research reviews and strategies for minimizing bias
3.	Discuss problem formulation, developing review questions in the Indian and global context and the uses and misuses of research synthesis to inform policy, practice and further research
4.	Discuss the reporting standards and guidelines for systematic reviews as well as registering titles and protocols, and conducting reviews for publication

2. Course Contents:

- Literature search Strategy
- Screening of studies
- Data extraction
- Use of Artificial Intelligence and Machine Learning in searching and screening studies
- Critical appraisal
- Critical appraisal case study
- Data synthesis -Introduction to meta-analysis, effect sizes and forest plots and testing for heterogeneity, SWiM guidelines
- Exercise: Creating and interpreting forest plots with Cochrane's RevMan software
- Introduction to Network Meta-analysis
- Writing a systematic review protocol
- Explanation on group work on developing SR protocol

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3. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)												Programme Specific Outcomes (PSOs)			
	PO -1	PO -2	PO -3	PO -4	PO -5	PO -6	PO -7	PO -8	PO -9	PO -10	PO -11	PO -12	PSO -1	PSO -2	PSO -3	PSO -4
CO-1					3	1	1	3	2			3	3	3	1	3
CO-2	1				3				2	1		2	2	2		2
CO-3	3	3	3	3	1			1	3	3		3	3	2		3
CO-4	1			1	2	1	1	3	2	3		3	3	3	1	3
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution																

4. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		20
Demonstrations		03
1. Demonstration using Videos		
2. Demonstration using Physical Models/ Systems		
3. Demonstration on a Computer	03	
Numeracy		
1. Solving Numerical Problems		
Practical Work		
1. Course Laboratory		
2. Computer Laboratory		
3. Engineering Workshop/Course Workshop/Kitchen		
4. Clinical Laboratory		
5. Hospital		
6. Model Studio		
Others		17
1. Case Study Presentation	02	
2. Guest Lecture		
3. Industry/Field Visit		
4. Brain Storming Sessions	05	
5. Group Discussions	10	
6. Discussing Possible Innovations		
Written Examination (Mid-Term tests and SEE)		05
Total Duration in Hours		45

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5. Method of Assessment

There are two components for assessment in this Course:

Component- 1: 60% weight
Group activity/Case study
Component- 2: 40% weight
Evaluation/MCQs/Report

The assessment questions are set to test the learning outcomes. In each component, certain learning outcomes are assessed. The following table illustrates the focus of learning outcome in each component assessed:

No.	Intended Learning Outcome	Mode of Assessment	
		Component 1 (CE)	Component 2 (SEE)
1	Explain the principles and methods of research synthesis and steps in conducting systematic reviews and meta-analysis	X	X
2	Explain the common sources of bias and errors in research reviews and strategies for minimizing bias	X	X
3	Discuss problem formulation, developing review questions in the Indian and global context and the uses and misuses of research synthesis to inform policy, practice and further research	X	X
4	Discuss the reporting standards and guidelines for systematic reviews as well as registering titles and protocols, and conducting reviews for publication	X	X

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The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

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6. Achieving learning outcomes

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S.No	Curriculum and Capabilities	How imparted during the course
1.	Knowledge	Class room lectures
2.	Understanding	Class room lectures
3.	Critical Skills	Case study and group discussions
4.	Analytical Skills	Group discussion
5.	Problem Solving Skills	Case discussions
6.	Practical Skills	Case discussions
7.	Group Work	Case study and group discussions
8.	Self-Learning	Assignments/Reports
9.	Written Communication Skills	Examination
10.	Verbal Communication Skills	Group discussions
11.	Presentation Skills	Case discussions
12.	Behavioral Skills	Group discussion, Case discussions
13.	Information Management	Case discussions
14.	Leadership Skills	Group discussions

3. Course Resources

1. Essential Reading

- Gough D, Oliver S, Thomas J. An introduction to systematic reviews. 2nd ed. London: SAGE; 2016.
- Patole S. Principles and Practice of Systematic Reviews and Meta-Analysis. SAGE; 2021.

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2. Recommended Reading

- Jacobsen (2016). Introduction to Health Research Methods. 2nd Ed. Jones & Bartlet Publishers

3. Magazines and Journals

- BMC Public Health https://bmcpublichealth.biomedcentral.com/

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4. Websites

- Cochrane:
  Cochrane's RevMan: http://community.cochrane.org/tools/review-production-tools/revman-5/revman-5-download

4. Course Organization

Course		Evidence Synthesis (Systematic Review and Meta-Analysis)
Course		PHE602A
Course Leader/s Name		
Course Leader Contact Details	**Phone:**	080 – 49065555
	E- mail:	
Course Specifications Approval		
Next Course Specifications Review		

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Course Specifications: Dissertation-Part-2

Course Title	Dissertation
Course Code	PHP607A
Department	Allied Health Science
Faculty	Faculty of Life and Allied Health Sciences

1. Course Summary

1. Aim and Summary

The aim of this Course is to encourage and develop skills in research project management, execution of research project and effective technical communication and presentation.

2. Course Size and Credits:

Number of credits	7
Total hours of class room interaction during the semester	00
Number of practical/tutorial hours	210
Number of semester weeks	16
Department responsible	Allied Health Sciences
Course evaluation	Total Marks: 300
Pass requirement	As per the Academic Regulations
Attendance requirement	As per the Academic Regulations

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2. Teaching, Learning and Assessment

1. Course Outcomes (CO)

Upon completion of this course students will be able to:

No.	Intended Learning Outcomes
1.	Conduct a primary research to answers the research questions and attain the research objectives posed in the proposal.
2.	Propose new ideas, methodologies or procedures for further improvement of the research undertaken.
3.	Defend the research findings in a public seminar before the scholarly audience
4.	Write a thesis and prepare a manuscript for publication in a journal or present the research findings in an academic or industry conference.

2. Course Contents:

Dissertation

- Research Methodology (Paradigm, Design, Population, Sampling,
- Results and Discussions
- Conclusion and suggestions for further work
- Thesis writing
- Oral presentation
- Authoring research paper
- Capacity building to avoid plagiarism

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3. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)												Programme Specific Outcomes (PSOs)			
	PO -1	PO -2	PO -3	PO -4	PO -5	PO -6	PO -7	PO -8	PO -9	PO -10	PO -11	PO -12	PSO -1	PSO -2	PSO -3	PSO -4
CO-1			3	2	1	2	2		1		1	2			3	1
CO-2			3		3	2								2		
CO-3		3		3	3	3	1	1	1	1	3	1				
CO-4		3	2	3	3	3		1	1		3	1	3			2
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution																

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4. Course Teaching and Learning Methods

Topics	Teaching methods
Literature review, Problem formulation and definition	Reading Journal papers, books and other relevant materials and problem formulation
	Presentation to Reviewers
Use of conceptual models and frameworks	Individual work with supervisors' guidance
Problem solving and Evaluation	Individual work with supervisors' guidance
Results and Discussions	Individual work with supervisors' guidance
Conclusion and suggestions for further work	Individual work with supervisors' guidance
Presentation, thesis/report writing and viva-voce, authoring research paper	Presentation and Viva voce
	Thesis/Report writing, Authoring research paper

5. Method of Assessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the MPH Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE), COs are assessed as illustrated in the following Table.

Focus of COs on each Component or Subcomponent of Evaluation		
Subcomponents	Component 1: PROJECT REPORT AND DIARY (60% Weightage)	Component 2: PRESENTATION/POSTER (40% Weightage)
Subcomponent Type	CE	SEE
Maximum Marks	300	300
CO-1	X	X
CO-2	X	X
CO-3	X	X
CO-4	X	X
CO-5	X	X

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CO-6	X	X

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

6. Achieving learning outcomes

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

S.No	Curriculum and Capabilities	How imparted during the course
1.	Knowledge	Dissertation
2.	Understanding	Dissertation
3.	Critical Skills	Dissertation
4.	Analytical Skills	Dissertation
5.	Problem Solving Skills	Dissertation
6.	Practical Skills	Dissertation
7.	Group Work	Dissertation
8.	Self-Learning	Dissertation
9.	Written Communication Skills	Report writing
10.	Verbal Communication Skills	Presentation
11.	Presentation Skills	Presentation
12.	Behavioral Skills	Dissertation
13.	Information Management	Dissertation report
14.	Leadership Skills	Dissertation

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3. Course Resources

- Lecture Sessions on Dissertation, Thesis Preparation delivered by the concerned Head of Dept
- Research Papers and Desk Review (relevant to research)
- A GUIDE TO WRITING YOUR MASTERS DISSERTATION -

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https://www2.hw.ac.uk/sml/postgraduate/downloads/dissertations/dissertationguide.pdf

- Writing a dissertation - https://www2.le.ac.uk/offices/ld/all-resources/writing/writing- resources/writing-dissertation
- Plagiarism checkers
  - https://www.grammarly.com/plagiarism-checker
  - https://www.duplichecker.com/

4. Course Organization

Course		Dissertation
Course		PHP607A
Course Leader/s Name		
Course Leader Contact Details	**Phone:**	080 – 49065555
	E- mail:	
Course Specifications Approval		
Next Course Specifications Review		

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Course Specifications: Internship

Course Title	Internship
Course Code	PHI608A
Department	Allied Health Science
Faculty	Faculty of Life and Allied Health Sciences

1. Course Summary

1. Aim and Summary

The aim of this module is to make a student experience an organizational/field/public health sector environment such as outreach centers in rural and urban areas, NGOs and reputed health organizations. Internship provides students with the opportunity to integrate their theory learning with real life work experience. Internship will provide advanced, specialized and supervised field operation and experience in health care setting. This course will also provide experiential learning with respect to social determinants, understanding various factors that interplay in deciding on the health of the community, and initiatives taken at the local, regional and international levels to address public health challenges. In addition, the interns will work on tasks and projects relevant to their professional interests.

2. Course Size and Credits:

Number of credits	6
Total hours of class room interaction during the semester	00
Number of practical/tutorial hours	180 hours
Number of semester weeks	16
Department responsible	Allied Health Sciences
Course evaluation	Total Marks: 150
Pass requirement	As per the Academic Regulations
Attendance requirement	As per the Academic Regulations

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2. Teaching, Learning and Assessment

1. Course Outcomes (CO)

Upon completion of this course students will be able to:

No.	Intended Learning Outcomes
1.	Identify, assess and present the organization structure, various departments of the organization, their activities and responsibilities to meet the organization objectives
2.	Analyze the roles and responsibilities of various professionals in the organization
3.	Analyze the field/public health sector environment and activities in relation to the organization and evaluate the significance of their activities.
4.	Undertake projects and field work of relevance to public health assigned by the organization.
5.	Prepare a report of their learning/experience at the organization in the prescribed format.

2. Course Contents:

- Objectives of the organization (Vision, mission, goals and objectives); Organization structure, various departments of the organization, their operational activities
- Roles and responsibilities of various professionals in the organization
- Field/public health sector environment and activities in relation to the organization
- Leadership, professional ethics and personal/professional integrity

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3. Course Map (CO-PO-PSO Map)

	Programme Outcomes (POs)												Programme Specific Outcomes (PSOs)			
	PO -1	PO -2	PO -3	PO -4	PO -5	PO -6	PO -7	PO -8	PO -9	PO -10	PO -11	PO -12	PSO -1	PSO -2	PSO -3	PSO -4
CO-1						2	3								2	
CO-2						2	3	1	3	1	2	1				
CO-3						3			3	2	2					
CO-4												1				3
CO-5												1				3
3: Very Strong Contribution, 2: Strong Contribution, 1: Moderate Contribution																

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4. Course Teaching and Learning Methods

Teaching and Learning Methods	Duration in hours	Total Duration in Hours
Face to Face Lectures		
Demonstrations		
14. Demonstration using Videos		
2. Demonstration using Physical Models/ Systems		
3. Demonstration on a Computer		
Numeracy		
1. Solving Numerical Problems		
Practical Work		
1. Course Laboratory		
2. Computer Laboratory		
3. Engineering Workshop/Course Workshop/Kitchen		
4. Clinical Laboratory		
5. Hospital		
6. Model Studio		
Others		
1. Case Study Presentation		
2. Guest Lecture		
3. Industry/Field Visit	178	178
4. Brain Storming Sessions		
5. Group Discussions		
6. Discussing Possible Innovations		
Written Examination (Mid-Term tests and SEE)		02
Total Duration in Hours		180

5. Method of Assessment

The details of the components and subcomponents of course assessment are presented in the Programme Specifications document pertaining to the MPH Programme. The procedure to determine the final course marks is also presented in the Programme Specifications document.

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The evaluation questions are set to measure the attainment of the COs. In either component (CE or SEE), COs are assessed as illustrated in the following Table.

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Focus of COs on each Component or Subcomponent of Evaluation		
Subcomponents	Component 1: PROJECT REPORT/DIARY (60% Weightage)	Component 2: PRESENTATION (40% Weightage)
Subcomponent Type	CE	SEE
Maximum Marks	100	100 Marks
CO-1	X	X
CO-2	X	X
CO-3	X	X
CO-4	X	X
CO-5	X	X

The Course Leader assigned to the course, in consultation with the Head of the Department, shall provide the focus of COs in each component of assessment in the above template at the beginning of the semester.

Course reassessment policies are presented in the Academic Regulations document.

6. Achieving learning outcomes

The following skills are directly or indirectly imparted to the students in the following teaching and learning methods:

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S.No	Curriculum and Capabilities	How imparted during the course
1.	Knowledge	Internship
2.	Understanding	Internship
3.	Critical Skills	Internship
4.	Analytical Skills	Internship
5.	Problem Solving Skills	Internship
6.	Practical Skills	Internship, Interaction with staff
7.	Group Work	Internship, Interaction with staff
8.	Self-Learning	Internship, Interaction with staff, Presentations
9.	Written Communication Skills	Report preparation
10.	Verbal Communication Skills	Internship, Interaction with staff
11.	Presentation Skills	Internship, Interaction with staff, Presentations
12.	Behavioral Skills	Internship, Interaction with staff
13.	Information Management	Internship, Interaction with staff, Presentations
14.	Leadership Skills	Internship, Interaction with staff, Presentations

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3. Course Resources

- Organization website
- Discussions with Managers/Mentor/Supervisor of different departments of the organization

4. Course Organization

Course		Internship
Course		PHI608A
Course Leader/s Name		
Course Leader Contact Details	**Phone:**	080 – 49065555
	E- mail:	
Course Specifications Approval		
Next Course Specifications Review		
ourse Specifications Review		

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