

# **PROGRAMME Curriculum & Syllabus** Master of Public Health (MPH)

# KIIT School of Public Health (KSPH)

KALINGA INSTITUTE OF INDUSTRIAL TECHNOLOGY (KIIT)

Deemed to be University (Established U/S 3 of UGC Act, 1956) Bhubaneswar, Odisha, India



### **KALINGA INSTITUTE OF INDUSTRIAL TECHNOLOGY (KIIT)**

Deemed to be University U/S 3 of the UGC Act, 1956

### KIIT Deemed to be University

Declared U/S 3 of UGC Act 1956 (An Institute of Eminence)

Master of Public Health (MPH) Curriculum and Syllabus (2022-24)



### **School of Public Health**

KIIT Deemed to be University (An Institute of Eminence) Campus -5 Bhubaneswar-751024 www.ksph.kiit.ac.in ; www.kiit.ac.in

#### Contents

Iten	18		Page
1.	Background	:	1
2.	About KIIT School of Public Health (KSPH)	:	2
3.	MPH Programme	:	3
4.	Objectives of MPH Programme	:	3
5.	Admission Eligibility	:	4
6.	Medium of Instruction	:	5
7.	Duration of Study	:	5
8.	Inter-semester Break	:	5
9.	Annual Intake	:	5
10.	Selection Process	:	5
11.	Fee Structure	:	5
12.	Accommodation	:	5
13.	Stipend	:	5
14.	Job opportunities after MPH	:	5
15.	How to Apply	:	6
16.	Uniqueness of MPH Program at KSPH	:	6
17.	Features of MPH Curriculum	:	7
18.	Semester wise Break up	:	8
19.	Details of Elective Subjects	:	10
20.	Examination, Evaluation & Grading	:	11
21.	Comprehensive Syllabus	:	15
22	Dissertation	:	37

#### Background:

KIIT Deemed to be University (KIIT DU) has A-Category status by the Ministry of HRD, Govt. of India, placing it among the most elite universities of the country. It is accredited by NAAC of UGC in "A++" Grade. KIIT Deemed to be University has been ranked No 1 among the Private Higher Education Indian Universities by Atal Ranking of Institutions on Innovation Achievements (ARIIA). The KIIT DU is the youngest University of India to get Institute of Eminence (IoE) tag from Ministry of HRD, Govt. of India, making KIIT DU a leading destination for international education. Further it has received Tier 1(Washington Accord) accreditation by NBA of AICTE.

KIIT DU sprawls over 25 sq.km area with one million square meters of aesthetically constructed built up area. Its cosmopolitan campus is proud to have 30,000 students from all corners of India and more than 20 countries. There are 28 constituent schools, contiguously located in impeccably landscaped and modern -technology-enabled campuses offering world class graduate, post-graduate, doctoral and post-doctoral programs in a wide range of disciplines with adequate and well qualified faculty, scientists and researchers. The university has its own entrance examination (KIITEE) for admission into most of the academic programmes and has excellent track record of nearly 100% placements. There exists academic partnership with several world class universities from across the world and industry- Institute interaction with more than 15 corporate giants. Other facilities include excellent convention centre complexes, accommodation and other facilities such as Wi-Fi Multimedia Classrooms & ERP, Large Open Air Theatre, Library, Ultramodern laboratory, close circuit cameras, Auditorium, Seminar Hall (50 to 500 capacity), Sports and athletic facilities and Cafeteria, 24x7 Internet and Intranet access.

#### Vision:

Our vision is to strengthen India's public health systems through institutional approach and provide in-depth knowledge and skills in various domains of public health to achieve better health outcomes for all.

#### **Mission:**

- Develop competent public health workforce and setting standards in various domains of public health
- Inculcating interventional approaches to public health research and technology
- Strengthening knowledge based application and evidence informed public health practice and policy through collaboration at local, national and international level

#### **Core Values:**

Commitments to excellence following ethics, addressing equity and integrity, innovating, respecting human dignity, cultural and gender sensitivity and special attention to vulnerable and deprived people are our core values.

#### About KIIT School of Public Health (KSPH):

Public health is a multidisciplinary field that involves a range of disciplines such as medicine, social and behavioral sciences, epidemiology and bio-statistics, environmental science, management and information technology.

Based on a situational analysis of (i) the needs and demands for competent public health professionals and health work force, and (ii) the need for evidence based research for advocacy and to influence public health policy in the country, KIIT DU has established a KIIT School of Public Health (KSPH) in 2015.

KIIT School of Public Health is 'not a stand-alone' institution. It is truly multidisciplinary and draws its strength by pooling resources and support from various schools of KIIT DU such as Kalinga Institute for Medical Science (KIMS), School of Biotechnology (KSBT), School of Social Science (KISS), Schools of Management (KSOM), School of Rural Management (KSRM), Schools of Science and Engineering and School of Law (KSL). KIIT School of Public Health also receives support from well-established laboratories of KIMS, KSBT and other schools for training, research and practice. All public Health Domain expertise and excellent research opportunities/facilities are available at KSPH and the other constituent schools of KIIT DU.

KIIT School of Public Health's mandate is to (i) provide student centric and world class quality teaching for the in service candidates and fresher,(ii) undertake evidence based research, and (iii) facilitate service provision to the community through local, national and international collaboration. Currently KSPH is implementing multiple projects on contemporary public health topics in collaboration with several agencies national and international.

KIIT School of Public Health (KSPH) has national and international collaboration with the Universities/ Institutions/ Schools of Public Health in Asia-Pacific region and other regions for innovations, joint-research and student-faculty exchange program.

KIIT School of Public Health (KSPH) has launched its Master of Public Health (MPH) program from the academic year 2017-2018 to prepare the next generation of public health professionals, managers, health policy makers, public health practitioners, research leaders and academicians. Student oriented MPH program is aimed at providing knowledge and skill in core subjects of public health. Students can choose one out of five elective courses offered by the school of public health.

Training at KSPH emphasizes learning by practice and solving problems not only at the classroom, but also at the community, health facility and health system level. KSPH provides a platform to identify and design the solution for Public Health Problem by joining the hands with different experts like Bio-technologist, Sociologist, Community Medicine, Pediatrician, Obstetric & Gynecologist, Rural Management experts etc.

KSPH envisages preparing Public Health Experts of different domains such as epidemiologists, health behavior scientists, health systems experts, health

management and health policy experts, health economists, health communication specialists, environmental and occupational health specialists, etc.

#### Master of Public Health (MPH) Program:

The Master of Public Health (MPH) program at the KIIT School of Public Health, Bhubaneswar, is offered from 2017-18 academic year by KIIT Deemed to be University.The MPH program at KSPH is a competency-based teaching program that prepares students to stand out among future public health professionals. This is two years (four semesters) credit based full time course. The candidates have to complete all the 15 core (compulsory) and one elective specialization module of their choice during first three semesters. Fourth semester is devoted for specialized elective course and dissertation work. Two months internship is covered during 2<sup>nd</sup> semester. A total of 52 credits offered in four semesters.

This document outlines the curriculum of MPH offered by KIIT Deemed to be University as per the University Grants Commission (UGC) of India and Ministry of Health & Family Welfare in consultation with subject experts both within and outside the KIIT Deemed to be University.

#### **Objectives of MPH Program:**

Overall objective of the MPH Program is to prepare competent public health professionals who can (i) assess the public health needs and problems, (ii) find solutions to the problems and develop strategy and to (iii) efficiently and effectively manage, lead, implement and evaluate public health program in India and other countries, through evidence based practice of the profession. The specific objectives of the Master of Public Health program are

1. To equip students with demonstrable knowledge in:

- a. Health status of populations at local, national and global level.
- b. Determinants of health and illness including socioeconomic determinants at local, national and international level.
- c. Concepts, principles, functions and practices of public health
- d. Strategies for health promotion, disease prevention (infectious and chronic non-communicable diseases), injury prevention and control; and health protection.
- e. Factors that influence the delivery, use, and quality of health service and related National Health Programs
- f. Health systems at local, national and global level.
- g. Health disparity across demographic, socioeconomic and geographical strata and how to work in socially, culturally and economically diverse populations with special attention to the needs of disadvantaged and vulnerable groups.

## **2. To enable students to assess, compare and analyze health related information** in order to:

- a. Recognize a health problem in a community.
- b. Collect, store, retrieve and use accurate and appropriate information on community health issues.
- c. Identify opportunities for new interventions and recommend evidencebased approaches to national and state health policy and program reforms.
- 3. To create ability among students to design, implement, lead, manage and evaluate health programs/projects on contemporary public health issues in order to:

 $(\mathcal{W})$ 

- a. Assess the community's needs for a health intervention.
- b. Identify and use appropriate and relevant health policy guidelines to address specific community needs, Identify gaps, barriers, limitations and opportunities in existing health policies, health systems and services.
- c. Design, budget and prepare workflow processes and innovative health interventions to address a specific or a group of health issues in a community.
- d. Implement work plan and processes of a newly designed program/project.
- e. Design and implement information system for monitoring a health program.
- f. Design and implement robust evaluation plan for a community health intervention.
- g. Communicate effectively for desired behavior change and health outcome.

## 4. To equip students with professional competencies for partnerships, collaboration and advocacy in order to:

- a. Identify and collaborate with potential partners in public sector, NGO sector, and corporate sector in addressing public health issues relevant to local, national or global context.
- b. Demonstrate skills for team building, negotiation, conflict management and group facilitation for effective partnership building.
- c. Demonstrate knowledge and skills for advocacy with appropriate authorities for healthy public policies and services.
- d. National and state health policy analysis.

## 5. To equip students with effective communication competency and leadership quality in order to:

- a. Acquire knowledge and skills to communicate effectively in individual, group and community settings.
- b. Mobilize individuals and communities by using appropriate media, community resources and social marketing techniques.
- c. Demonstrate ability to build community capacity by sharing knowledge, tools, expertise and experience.
- d. Demonstrate ability to build a team in order to advance public health goals locally, nationally and internationally.

# 6. To develop the required skills for planning, conducting and disseminating both qualitative and quantitative research in institutional and field settings

#### Admission eligibility:

- Graduates in Medicine, AYUSH, Dentistry, Nursing, Pharmacy, Veterinary Sciences, Physiotherapy, Allied and Health Sciences
- Postgraduates in Life Sciences, Statistics/Bio-statistics, Demography/Population Studies, Nutrition, Economics, Psychology and Anthropology

All the eligible qualifications must be from recognized University/institutions and all these degrees must have been offered in English medium. Those candidates with prior public health experience will be given priority for admissions when candidate's academic profile & performance are same. Medium of Instruction: Medium of Instruction will be in English.

**Duration of Study:** The course is full time and of four semesters duration spread over two academic calendar years including internship and dissertation. Each semester is of six months period. First and third semesters are on campus only. Second and 4<sup>th</sup> semester students are allowed for internship and dissertation field work as per assigned schedule.

**Inter-semester break:** End semester breaks if any will be notified at the beginning of semester based on approved academic calendar. Students are encouraged to undergo short internships or field studies during inter-semester breaks.

**Annual intake:** Current annual intake capacity is up to 20. Preference will be given to students from low- and middle-income countries.

#### **Selection Process:**

(i) Indian students: Eligible students need to appear for All India online KIITEE Entrance Examination (https://kiitee.kiit.ac.in) to be qualified for the admission into the MPH Course. The entrance examination is aimed at selecting interested candidates with proper aptitudes towards public health.

(ii) Overseas students: Selection will be based on educational qualifications, experience and Skype/online interview. Students will have to provide certification for proficiency in English at the time of selection.

All the applicants have to submit their original certificates for verification at the time of admission.

**Fee Structure:** Fee structure will be decided by the University and will be notified in the admission brochure/student manual.

**Accommodation:** Selected candidates will be given accommodation in campus hostels as per the university procedure.

**Stipend:** No Stipend will be given to the students during the MPH course. However, when funds are available students may avail scholarship which will be notified from time to time. Students are encouraged to apply government and other sources for scholarships when available.

#### Job opportunities after MPH:

The work of public health professionals is important because public health initiatives affect people every day in every part of the world. Master of Public Health (MPH) provides you the opportunity to work towards the improvement of health and well-being of individuals, families, communities and populations. You may act as health care administrator, public health project /program manager, epidemiologist, public health researcher, occupational health and safety officer, health behavior change official, health information officer, public health planner, program/project evaluator, public health teacher/tutor, disease surveillance officer etc. The field of public health is constantly evolving in response to the needs of communities and populations around the world and so is the scope of work in the field of public health. Potential employers include (1) State and Central Government Departments, National Health Mission (2) Multilateral and Bilateral agencies like WHO, and other United Nations Agencies like UNICEF, UNDP, UNAIDS etc. (3) National and international nongovernmental organizations(NGOs) (4) Corporate sectors under Corporate Social Responsibility(CSR) or other industry supported foundations,(5)Hospitals, health insurance companies (6) academic institutions including Schools Public Health (7) Research organizations and (8) Allied health organizations etc.

MPH Graduates also have the option to pursue higher studies like specialized training or PhD in India and abroad.

**How to Apply:** Interested candidates may apply through online portal athttps://www.kiitee.kiit.ac.in/

#### Uniqueness of MPH Program at School of Public Health, KIIT University:

- 1. A competency-based teaching program that prepares students to stand out among future public health professionals.
- 2. Combination of Conventional and Modern Pedagogy: Lectures, small group discussions, independent class and homework assignments, simulations, debates, case studies, role playing, demonstrations, experimental learning activities, instructional technologies using slides, videos, case presentations, use of ICT methods and collaborative learning work to enable students to participate and apply what they have learned.
- 3. A strong foundation in public health is built in the first semester
- 4. Interdisciplinary teaching.
- 5. 15 core subjects, (Yoga is Non-Credit) and one more elective subject of their choice.
- 6. Practicum opportunity in the field.
- 7. Hands on training at health facilities, community-based public health programs, disease prevention and control programs, national and international health agencies, non-governmental organizations (NGO).
- 8. Faculty guide assigned to each student to guide in thesis as well as practical work
- 9. Mentorship: Each faculty will be responsible for at least 3-5 students. The mentorship includes close interaction with the students and solving their education related problems
- 10. Building of soft skills like writing, presentations, group discussions.
- 11. Seminars and journal clubs.
- 12. Leadership and communication training.
- 13. opportunity to do research work & write a thesis
- 14. Analytical skills will be developed through, epidemiological and statistical exercises, journal clubs, case studies.
- 15. Reputed guest faculty
- 16. Opportunity to participate in institutional and community-based research projects.
- 17. Encouragement for participation and presentation of papers in national and international training workshops / seminars / conferences.
- 18. Attractive career path for health professionals with academic and research possibilities.

#### Features of MPH Curriculum:

- A. The 15 core courses and Yoga (Non-Credit) are spread over first three semesters:
- a. Semester I
- 1. Principles and practice of Public Health
- 2. Introduction to health system and policy in Developing countries
- 3. Health Management: Management Principles and practices
- 4. Basic Epidemiology including Non-Communicable and Communicable Disease
- 5. Basic Bio-statistics
- 6. Demography and population sciences
- 7. Yoga (*non-credit module*)

#### b. Semester II (Includes 2-month internship)

- 8. Introduction to Health Economics
- 9. Health Promotion Approaches and Methods
- 10. Introduction to Financial Management and Budgeting
- 11. Social and Behaviour Change, Effective Communication in Health Care

#### c. Semester III

- 12. Reproductive, Maternal Health, Child Health and adolescent (RMNCH+A)
- 13. Introduction to Design and Evaluation of Public Health Programs
- 14. Principles of Research Methods
- 15. Environment and Occupational Health
- 16. Law and Ethics in Public Health

#### B. Departmental Elective Courses (Any One during 4th Semester)

- 1. Epidemiology
- 2. RMNCH+A
- 3. Health System Management
- 4. Health Programme, Policy and Planning
- 5. Global Health

#### C. Practicum: Inbuilt in theory module

#### D. Internship

E. Dissertation -spread over 2<sup>nd</sup> (conception & Topic finalization), 3<sup>rd</sup> (Finalization of tools, research committee & ethical clearance) and 4<sup>th</sup> semester (Field work & Submission)

#### F. Other research related teaching

- 1. Journal clubs / seminars
- 2. Writing skills through assignments and paper publication

	Semester I							
S1.	Course code	Subject	Con	tact Ho	ours pe	r week	Credit	
No.		Subject		Т	P	Total	Cleun	
1	PE5101	Principles and Practices of	2	1	0	3	1.5	
1		Public Health						
		Introduction to Health	3	1	0	4	2	
2	PE5103	System and Policy in						
		Developing Countries						
		Health Management:	3	1	0	4	2	
3	PE5105	Management Principles and						
		Practices						
		Basic Epidemiology	3	2	0	5	2.5	
4	PE5107	including Non-						
4		Communicable and						
		Communicable Diseases						
5	PE5109	Basic Bio-statistics	3	2	0	5	2.5	
6	PE5111	Demography and	2	1	0	3	1.5	
0	F E3111	Population Sciences						
7	7 Yoga (Non-Credit) 0 0 0						0	
Total Theory						24	12	
Semest	Semester Total						12	

#### Semester wise breakup:

L=Lecture, T=Tutorial, P=Practical

Semester II								
<b>S1.</b>	Course code Subject Contact Hours per		er week	Credit				
No.		Subject	L	Т	P	Total	Cleun	
1	PE5102	Introduction to Health	2	1	0	3	1.5	
I	1 15102	Economics						
2	PE5104	Health Promotion	2	1	0	3	1.5	
2	1 15104	Approaches and Methods						
3	DEE106	Introduction to Financial	3	1	0	4	2	
5	PE5106	Management and Budgeting						
	PE5108	Social and Behaviour	2	1	0	3	1.5	
4		Change, Effective						
4		Communication in Health						
		Care						
Total T	heory					13	6.5	
Session	nal							
1.	PE5182	Seminar-I	0	0	4	4	1	
2. PE5184 Internship		0	0	8	8	2		
Total Sessional							3	
Semest	Semester Total							

L=Lecture, T=Tutorial, P=Practical

SEMESTER – III								
S1.	Course Contact Hours pe			er week	<b>C</b> 1''			
No.	code	Subject	L	Т	Р	Total	Credit	
		Reproductive, Maternal	2	1	0	3	1.5	
1	PE6101	Health, Child Health and						
		Adolescent (RMNCH+A)						
		Introduction to Design and	3	2	0	5	2.5	
2	PE6103	Evaluation of Public Health						
		Programs						
3	PE6105	Principles of Research	3	2	0	5	2.5	
5		Methods						
4	PE6107	Environment and	2	1	0	3	1.5	
4		Occupational Health						
5	<b>DE</b> (100	Law and Ethics in Public	2	1	0	3	1.5	
5	PE6109	Health						
Total T	heory	-	•	•	•	19	9.5	
Session	Sessional							
1.	PE6181 Seminar - II 0 0 4 4						1	
Total Sessional						1		
Semester Total							10.5`	

L=Lecture, T=Tutorial, P=Practical

SEMESTER – IV								
A. Theory								
S1.	S1. Course Subject Contact Hours p			Contact Hours per week			Credit	
No. code		Subject	L	Т	Р	Total		
1	PE6162	Epidemiology	15	5	0	20	10	
2	PE6164	RMNCH+A	15	5	0	20	10	
3	PE6166	Health System Management	15	5	0	20	10	
4	PE6168	Health Programme, Policy	15	5	0	20	10	
4		and Planning						
5	PE6170	Global Health	15	5	0	20	10	
Total Theory					20	10		
Disserta	ation Work							
S1.	Course	Subject	L	т	DW	Total	Credit	
No.	code	Subject	Subject L I DW			I Utal	creuit	
1	PE6182	Dissertation	0	0	20	20	10	
Total						20	10	
Semester Total						40	20	

L=Lecture, T=Tutorial, P=Practical, DW= Dissertation Work

01	6		Со	ntact	t Hou	ırs per	
S1.	Course	Subject		week			
No.	code	,	L	Т	Р	Total	
		Epidemiology	15	5	0	20	10
		i. Advanced Bio-statistics	3	1	0	4	2
		ii. Advanced Epidemiology	3	1	0	4	2
1	PE6162	iii. Survey Design and Methods	3	1	0	4	2
		iv. Infectious Disease Epidemiology	3	1	0	4	2
		including live Outbreak Investigation	5	1	0	т	2
		v. NCD Epidemiology	3	1	0	4	2
		RMNCH+A	15	5	0	20	10
		i. Reproductive and Sexual Health	3	1	0	4	2
		ii. Maternal and child Health-Advanced	3	1	0	4	2
2	PE6164	iii. Adolescent Health	3	1	0	4	2
		iv. Gender and Health	3	1	0	4	2
		v. Public Health Nutrition	3	1	0	4	2
			15	5	0	<sup>4</sup> 20	<u> </u>
	PE6166	Health System Management	3		-		
		i. Strategic management Innovations and Entrepreneurship in healthcare	3	1	0	4	2
		ii. Operational Research (Advanced)	2	1	0	3	1.5
_		iii. Advanced Financial Management and	3	1	0	4	2
3		Budgeting	5	T	0	Ŧ	2
		iv. Organizational Management and	4	1	0	5	2.5
		Services		_		-	
		v. Effective Communication in Public	3	1	0	4	2
		Health					
		Health Programme, Policy and Planning	15	5	0	20	10
		i. Health policy, process and planning:	3	1	0	4	2
		ii. Design and evaluation of public health	3	1	0	4	2
		programs (including current NHPs)					
4	PE6168	iii. Translating Research into Policy and	3	1	0	4	2
		Health Advocacy	0	1	0	4	
		iv. Current Issues in Health Policy: National and Global Perspective	3	1	0	4	2
		v. Role of Non-Governmental	3	1	0	4	2
		Organization in Health Care	5	Т	0	Ŧ	2
		Global Health	15	5	0	20	10
		i. International Health	3	1	0	4	2
		ii. Technology & Public Health	3	1	0	4	2
5	PE6170	iii. Antibiotic Resistance	3	1	0	4	2
	- 202.0	iv. Public Health Needs of Specific	3	1	0	4	2
		Population Groups	5	T		Ŧ	~
		v. Mental Health	3	1	0	4	2
-T -	L oturo T-T	utorial, P=Practical	Ľ	-	Ľ	-	-

#### Note:

i. 1 credit  $\approx$  35 contact hours  $\approx$  2 contact hours per week for theory module, and 1 credit  $\sim$  70 contact hours  $\sim$  4 contact hours per week for sessional activities.

ii. A semester consists of a minimum of 90 working days (~ 90x6=540 contact hours),

iii. Yoga is a non-credit course to be offered in collaboration with School of Yoga, KIIT DU in the 1<sup>st</sup> Semester. A satisfactory grade from the School of Yoga, KIIT DU is required to obtain the final degree from the University.

iv. Semester-II has ~540 available contact hours considering 90 working days per semester. Out of this, ~230 contact hours have been allocated towards teaching. Balance contact hours will be dedicated towards preparatory work for Dissertation and sessional work including Internship.

v. Semester III has ~540 available contact hours considering 90 working days per semester. Out of this, ~ 330 contact hours have been allocated towards teaching. Balance contact hours will be dedicated towards preparatory work for Dissertation and sessional activities.

vi. Semester-IV has available ~540 contact hours considering 90 working days per semester, and ~350 contact hours has been allocated to elective theory classes. Balance contact hours will be utilized to complete the dissertation work.

vii. There is no separate practical or fieldwork module. It is part of each theory module and shall be evaluated as a part of continuous internal evaluation.

viii. All modules under one Elective course are mandatory.

ix. Total MPH course credits = 52 credits spread over 4 semesters.

x. Dissertation: Students shall select an acceptable type of projects (Case study, policy analysis, descriptive study, analytical study, program evaluation, experiment- Randomized or otherwise, innovative approaches etc) for MPH dissertation during2nd semester in consultation with the assigned Guide and continue in 3<sup>rd</sup> Semester and completion of Dissertation will be in 4<sup>th</sup> Semester. In addition students have to submit a manuscript based on dissertation work in an Indexed and peer reviewed journal.

xi. Mentorship: Each faculty will be responsible for at least five students. The mentorship includes close interaction with the students and solving their education related problems.

#### Examination, Evaluation & Grading

#### 1. Rules of Examination:

**1.1.** The MPH programme shall consist of the following items:

- Theory
- Sessional: Internship & Seminar
- Dissertation

**1.2.** At the end of each semester, there shall be an examination called End-Semester Examination

**1.3**. If a student fails in a subject in 1<sup>st</sup> or 2<sup>nd</sup> semester, a Supplementary Examination will be conducted in the early part of next academic session. If a student fails in the dissertation, he/she shall be evaluated after six months of time.

**2.1. Theory:** Each item under this classification shall be evaluated on the basis of 100 percentage points, subdivided in to the following categories:

#### 2.1.1. End Semester Examination: 50 percentage points

(i) The question paper in the concerned subject will be set by an external. The external may be from the KIIT University excluding School of Public Health,



or other Universities in Odisha. The externals should be in the rank of Asst. Prof. or above with MPH/PhD/MD (Community Medicine/PSM/HA)/ PG Qualification in the subject and having five years of teaching experience.

- (ii) The end semester examination will be of 3 hours duration.
- (iii) End Semester Examination papers will be centrally evaluated. All the End Semester Examination scripts are to be scanned centrally. Two subject teachers from the school will be appointed as the examiner and chief examiner to evaluate the scripts of a given subject within 10 days from the date of examination. Chief examiner will scrutinize the marks awarded by the examiner. After evaluation, scanned copies are to be shown to the students for any omission or correction. Accordingly these scripts are once again reevaluated based on the student's feedback and the End Semester Examination marks are finalized and forwarded to the Controller of Examinations within a period of 12 days from the last date of examination. The final results shall be published within a period of 15 days from the last date of examination by the Controller of Examinations.

#### 2.1.2 Internal Assessment: 50 percentage points

**2.1.2.1** The minimum qualifying mark in the Internal Assessment is 50% to appear in the End-Semester Theory Examination.

2.1.2.2 Internal Assessment (of 50 percentage points) comprises of:

- (i) Mid Semester Examination : 20 percentage points
- A mid-semester examination will be conducted as per academic calendar approved by the university. The mid-semester examination will be of one and half hour duration. The mid-semester examination will be evaluated by the subject teacher within 10 days of actual conduct of the examination. After evaluation, the mid-semester copies are to be shown to the students for any omission or correction. Accordingly these scripts are reevaluated by the subject teacher to finalize the mid-semester mark. In case a student secures less than 50% mark, he has to mandatorily appear for a re-mid-semester examination for the concerned subject(s). Other students who want to improve their grade can also appear for the re-mid-semester examination. In such a case, higher mark secured out of two mid-semester examinations in the concerned theory paper will be considered for final computation of internal assessment marks. No-further mid-semester examination will be conducted to improve the grade.
- (ii) Quiz and Home Assignments: 30 percentage points.

At least 1 (One) quiz and a number of home assignments (minimum three graded assignments) for each subject shall be given by the subject teacher for a given subject. The pattern of evaluation under each category and the distribution of marks in the quizzes and assignments will be announced by the course teacher in consultation with the Head of the School at the beginning of each semester.

**2.1.2.3** It should be the endeavor of all students to secure a minimum of 'C' Grade in a theory subject after the End-semester examination. Students can appear improvement examinations with C or D grade both in end semester examinations (Autumn / Spring) or during the supplementary examination in the next available opportunity for the said theory paper to improve his/her grade. This would facilitate improvement in the overall CGPA in order to obtain the MPH Degree.

#### 2.2. Evaluation of Sessional

**2.2.1. Internship:** (100 percentage points)

Work done during the Internship will be evaluated on the basis of the Internship logbook(40 percentage points), supervisors feedback (40 percentage points) and interview (20 percentage points) for the work done by a faculty assigned by the Head of the School of Public Health.

#### 2.2.2 Evaluation of Seminar:

There will be no formal end semester examination of the written kind. The evaluation shall be done internally through a Departmental Committee appointed by the Head of the School.

- 2.2.2.1. Seminars, Journal Clubs shall be evaluated as below:
  - (i) Evaluation of seminar: Student will choose a Seminar topic of public health importance in a given semester. They have to make the manuscript, PPT and seminar should be presented in front of two internal evaluators. The marks will be distributed based on chosen topic, preparation of slides, presentation skills, content, response to questions and attendance in the seminar presented by fellow students.
  - (ii) Evaluation of Journal Club: Students will choose a recently published journal article from a high impact journal in relation to the modules covered in a given semester. They have to make PPT and it should be presented in front of two internal evaluators. The marks will be equally distributed across the domains such as abstracting skill, presentation skill, discussion and critical appraisal.

#### 2.3. Evaluation of Dissertation:

**2.3.1** Dissertation write up as well as viva-voce will be evaluated by one internal and one external examiner. External should be in the rank of an Asst. Prof. or above with MPH/PhD/MD (Community Medicine/ PSM/HA)/PG Qualification in the subject, and having five years of teaching experience. External examiner may be from KIIT DU excluding School of Public Health, or other universities of Odisha State. The subject teacher will be appointed as internal.

1.3.2 Distribution of points will be: (total 100 percentage points)

Evaluation of the dissertation write up (60 percentage points) by external examiner, and viva (40 percentage points) by one internal and one external examiner will be conducted. Distribution of points is as follows:

#### i. Dissertation Write up

**a)** Background, Rationale (10 percentage points): Importance of topic & its Public health significance will be considered while grading

**b)** Literature review (10 percentage points): Recentness, relevancy & exhaustiveness of the literature will be considered while grading

**c)** Objective, Methods & Statistical Analysis (10 percentage points): SMART criteria of objective, scientific methods & appropriate statistical analysis to meet the objective will be considered while grading

d) Result, Discussion & recommendation (10 percentage points )

**e)** Referencing style (10 percentage points): A minimum of 35 articles/books/reports should be referenced with use of appropriate referencing style. Five or more references from the high impact journals will be graded higher.

**f)** Plagiarism (10 percentage points) Low level of plagiarism (from Turnitin report) will be graded higher. Acceptable level of plagiarism is below 20%.

**ii. Viva:** Viva will be evaluated by both internal (20 percentage points) and external (20 percentage points) for the work done and presented.

#### 3. Grading & Performance Index:

**Grading System:** A seven-point grading system **(GS)** on a base of 10 is followed for grading in the examination categorization of these grades and their correlation shall be as below

Qualification	Grade	Score on 100	Point
Outstanding	'O'	90 to 100	10
Excellent	Έ′	80 to 89	9
Very good	'A'	70 to 79	8
Good	'B'	60 to 69	7
Fair	'C'	50 to 59	6
Below average (Pass)	'D'	40 to 49	5
Failed	'F'	Below 40	2

CREDIT POINT = CREDIT X POINT for each Course item.

CREDIT INDEX (CI) =  $\sum$  CREDIT POINT of all course item in a semester. **SGPA:** Semester Grade Point Average (**SGPA**)=CI /  $\sum$  CREDITS (for a semester) is the credit weighted average of grade points earned in all the subject items in a Semester. It indicates the performance level of a student in a particular semester. **CGPA:** Cumulative Grade Point Average (**CGPA**)=[ $\sum$  CI of all previous semesters up to current semester ] /[ $\sum$  CREDITS of all previous semester up to current semester]. It indicates the current performance level of a student. *Note:* Letter grade "I" will be awarded in case the candidate fails to appear in the examination of any subject.

The medium of the instruction of the university is English.

#### 4. Attendance:

If a student's attendance in a subject item falls below 75%, he/she will be debarred from appearing in the end-semester examination in that subject item.

#### 5. Pass / Fail in an individual course:

- The minimum pass grade in Sessional is 'C'.
- 'D' will be the minimum pass grade. Below that would be the Fail, i.e. 'F' grade.
- The students will be promoted to next higher semester even if s/he is failed in one or more subjects. However students have to secure pass grade in the failed subject(s) subsequently through Supplementary examination.
- The supplementary examination will be conducted annually following the rules and regulations for the KIIT DU. Student shall follow the rules and regulation of KIIT DU available at http://coe.kiit.ac.in for appearing in the examination or to clear back paper.

#### 6. Degree Requirement:

- 6.1. A student must
  - (i) Complete all the credit requirements for the Degree as laid down in the prescribed curriculum of the discipline with a minimum of "D" Grade scored in every theory and a minimum of "C" grade in every Sessional item.
  - (ii) A satisfactory grade in Yoga from the School of Yoga, KIIT DU, is necessary for the award of the degree.
  - (iii) Obtain a minimum CGPA of 6 or higher at the end of semester in

which he/she completes all the requirements for the degree.

- 6.2. Degree certificate will be kept in hold till the payment of all institutional dues of the University including hostel fees.
- 6.3. Maximum a period of 4 years is allowed to a student to fulfill the degree requirements as laid down in the clause 6.1. No degree shall be offered to a student after four years of enrolment with the university.

#### **COMPREHENSIVE SYLLABUS**

In order to generate competent public health professionals, KSPH primarily focuses on imparting knowledge, skill and attitudes among students. KSPH envisages each module in the MPH programme should able to meet core competencies required for a public health professional to effectively deliver the job responsibilities shouldered by him/her. KSPH offers 15 core modules and one elective specialization module. Second Semester has 4 theory modules and 2 months internship. Fourth semester is completely devoted to elective specialization and dissertation work.

#### SEMESTER-I

#### PE5101 - Principles and Practices of Public Health:

At the end of the course, the students will be able to:

- Define Public health & its scope
- Recognize core functions, essential services and core competencies in public health
- Describe the Indian healthcare delivery system,
- Utilize the principles and practices of public health in different resource constraint scenario
- Describe the contemporary public health issues and challenges

#### Contents

- Public Health- definition, scope, core functions, essential services, core competencies
- Microeconomics determinants of health
- Health systems and health policy
- Health equity
- Health of vulnerable population
- Public health action
- Environments and health
- Contemporary issue in public health
  - Primary healthcare
  - Universal Health Coverage, Sustainable Development Goals
  - Introduction to Global Health
  - One Health
  - Public health emergencies
  - Introduction to Food and Nutrition
  - Risk management and Prevention of Antibiotic Resistance

#### Tutorial

- Assessment of Health Equity
- Gender Analysis
- Disaster Management

Theory and tutorial will be supported by field visits, seminars, journal clubs, case studies, and analytical assignments.



#### Text Book(s):

- 1. Detels R, Gulliford M, Karim QA, Tan CC. Oxford Textbook of Global Public Health. Sixth Edition. Oxford University Press, 2015.
- 2. Park, K.Parks Textbook of Preventive and Social Medicine. 26thEdition, M/S Banarsidas Bhanot Publishers, 2021

#### **References:**

1. World Health Organization. Gender analysis in health: a review of selected tools by WHO. Available at http://apps.who.int/iris/bitstream/10665/42600/1/9241590408.pdf

#### Journals: Relevant articles from:

- 1. Indian Journal of Public Health
- 2. Lancet Global Health

#### **SEMESTER - I**

## **PE5103 - Introduction to Health System and Policy in Developing Countries:** By the end of this module, the students will able to:

- Define and describe different health systems across the globe
- Explain different levels of healthcare delivery system and related issues in India
- Enlist the global commitments such as MDGs, SDGs, Universal health coverage, and its achievements
- Describe the process of policy formulation and health and related policy analysis
- Explain the process of health policy making, advocacy with stakeholders and contextual factors affecting policy decisions.

#### Contents

- Health System- definition, types, comparison
- Concept of health care and health care delivery system in India and other selected countries
- Rural and Urban Health, primary, secondary and tertiary health care, Health for all, MDGs & SDGs, health disparity, universal health coverage.
- Basic theoretical approaches and concepts used in policy analysis
- Understanding of global and national health policies, including currenttrends
- Analyze the political system within which policies aremade
- Contextual factors that influence policy change
- Changing global health policy environment

#### Tutorial: Policy Analysis of select health policy

#### Text Book(s):

1. Detels R, Gulliford M, Karim QA, Tan CC. Oxford Textbook of Global Public Health. Sixth Edition. Oxford University Press, 2015.

#### **Reference Book(s):**

- 1. Crinson I. Health Policy: A Critical Perspective.Cambridge University Press, 2009.
- 2. Kelkar S. India's Public Health Care Delivery: Policies for Universal Health Care. Macmillan publishers, 2021.



3. Seavey JW. Health Policy Analysis: Framework and Tools for Success. 1st edition. Springer Publishing Company, 2014.

#### Journals: Relevant articles from:

1. International Journal of Health Policy and Management

#### SEMESTER - I

PE5105: Health management: Management principles and practices:

By the end of this module, student will able to:

- Enlist key management principles and practices
- Describe planning, implementation, monitoring and evaluation of health programmes
- Explain risks in public health project and programme management
- Apply tools & techniques for effective public health program management
- Demonstrate public health managerial and leadership skills
- Conduct operational research to improve public health programme management

#### **Contents:**

- Health management: Management principles and practices:
- Basic knowledge of health care systems and the environment in which health care managers and providers function
- Health Programmes: planning, implementation, Monitoring and Evaluation
- Components of strategic management
- Project management
- Behavioural aspects of governmental, faith based and other nongovernmental organizations
- Introduction to logistics management
- Introduction to human resource management
- Quality: define quality, its importance in public health, measures to manage and improve equality
- Introduction to Operational Research
- Risk management
- Effective management of Health Management Information Systems (HMIS) and its application
- Public Health Leadership

#### Tutorial:Operational Research

#### Text Book(s):

1. Detels R, Gulliford M, Karim QA, Tan CC. Oxford Textbook of Global Public Health. 6<sup>th</sup> edition. Oxford University Press, 2015.

Health

- Lal S. Public Health Management Principles And Practice. CBS Publisher, 2016.
- 3. Gray CF, Larson EW, Desai GV. Project Management: The Managerial Process. 6th Edition. McGraw Hill Publisher, 2017.

#### **Reference Book(s):**

1. Kahraman C, Topcu I. Operations Research Applications in Care Management. Springer Publications, 2018.

**Journals:** Relevant articles from:

- 1. Journal of Healthcare Management
- 2. International Journal of Health Policy and Management.

#### SEMESTER I

# PE5107: Basic Epidemiology including communicable and non-communicable diseases:

#### By the end of this module, students will able to:

- Appreciate the application epidemiology in public health practice
- Describe basic concepts of epidemiology
- Apply tools and techniques to measure and compare disease burden in community
- Design and conduct epidemiological studies
- Enlist the disease surveillance activities

#### **Content:**

- History of Epidemiology
- Measurements in Epidemiology
- Incidence and prevalence
- Causation and association
- Measures of association
- Outline of study designs (including cross sectional study design, case control study design, cohort study design and randomised control trials)
- Introduction to confounding and bias
- Screening tests- validity and reliability methods
- Disease surveillance
- Outbreak investigation
- Communicable and non-communicable diseases
- One Health

#### Tutorial

- Series & Parallel Screening Tests
- Reliability & Validity
- Outbreak Investigation
- Study design

#### Text Book(s):

 Leon Gordis. Epidemiology. 6<sup>th</sup> edition. Saunders (Elsevier Inc) Publication, 2019.

#### **Reference Book(s):**

- **1.** Rothman K. Modern Epidemiology. 3<sup>rd</sup> edition by Wolters Kluer(Health) Publications, 2012.
- Journals: Relevant articles from:
- 1. International Journal of Epidemiology

#### SEMESTER - I

#### PE5109: Basic Bio-statistics:

#### By the end of this module, student will able to:

- Describe key bio-statistical concepts
- Use, analyse, interpret and present data
- Use statistical software for data entry, data processing and data analysis

#### **Content:**

- Types of variables
- Scales of measurement



- Measures of central tendency
- Measures of dispersion
- Types of distribution
- Bayes theorem
- Sample/sampling and population distribution
- Central limit theorem
- Type1 and type 2 error and power calculation
- P-value and 95% confidence Interval
- Parametric and non-parametric test
- How to choose the statistical test
- Correlation
- Basics of regression
- One statistical software (SPSS/Stata)

#### Tutorial

- Use of OpenEpi website-Open Source Epidemiologic Statistics for Public Health
- Data entry into software (Excel, Epi-Data, SPSS, Epi-Info)
- Data Analysis using software SPSS, R

#### Text Book(s):

1. Rao PSSS, Richard J. Introduction To Bio-statistics and Research Methods. 5<sup>th</sup> edition. PHI publisher, 2012.

#### **Reference Book(s):**

1. Indrayan A, Malhotra RK. Medical Bio-statistics. 4<sup>th</sup>edition. Chapman & Hall Publishers, 2018.

#### **Journals:** Relevant articles from:

1. Indian Journal of Statistics

#### SEMESTER - I

#### **PE5111 - Demography and Population Sciences**

By the end of this module, student will able to:

- Describe basic demographic concepts, theories, and processes
- Explain the demographic measures
- Apply tools and technique to measure population health issues
- Describe population health policies and its impact
- Conduct demographic researches

#### **Contents:**

- Factors affecting population
- Measures of fertility and mortality
- Standardization methods
- Population growth and projection
- Demographic transition
- Implication of rapid population growth
- Demographic dividend or disaster
- Life table
- Urbanization
- Migration

#### Tutorial:

Demographic indicators assessment fromsecondary data (for developed and developing countries)



- Demographic transition & Health vulnerability assessment
- Family planning methods
- Population Pyramid Construction using excel and its interpretation
- Use of Life Table
- Beneficiary estimation for national programmes

Theory and tutorial classes are to be supported by field visits

#### Text Book(s):

- 1. Bhende AA. Kanitkar T. Principles of population studies, Himalaya Publishing House, 2011.
- 2. Park, K.Parks Textbook of Preventive and Social Medicine. 26thEdition, M/S Banarsidas Bhanot Publishers, 2021.

#### **Reference Book(s)**

1. Hoque, M. Nazrul, Pecotte, Beverly, McGehee, Mary A. (eds) Applied Demography and Public Health in the 21st Century. Springer, 2017.

Journals: Relevant articles from:

1. Demography

#### SEMESTER -II

### PE5102: Introduction to Health Economics:

- By the end of this module, student will able to:
- Describe basic health economic concepts
- Measure the economic consequences of ill health
- Conduct economic evaluations of public health interventions

#### **Contents:**

- Key concepts of economics, micro and macro economics
- Strategizing and prioritizing within scarce resources (decision making)
- Determinants of demand, supply and costs of production
- Concepts of efficiency, effectiveness, equity, elasticity of demand, costing, production, marginal cost analysis, and opportunity cost
- Market model, market failure, and the roles and limitations of markets in health care
- Universal health coverage and role of health care financing
- Principles and application of economic evaluation in health care including Cost Benefit Analysis (CBA) and Cost Effective Analysis (CEA)

Tutorial:

- Estimation of Out of pocket expenses, catastrophic health expenses,
- Cost-effective & cost-benefit analysis

#### Text Book(s):

- 1. Nair KS. Health Economics and Financing. New Century Publications, 2019.
- 2. Pattnaik P. Health Economics. Black Prints India Inc, 2013.

#### **Reference Book(s):**

1. Raman AV, Björkman JW. Public-Private Partnerships in Health Care in India: Lessons for developing countries. Routledge, 2017.

2. Detels R, Gulliford M, Karim QA, Tan CC. Oxford Textbook of Global Public Health. 6<sup>th</sup> edition. Oxford University Press, 2015.

Journals: Relevant articles from:

1. Journal of Health Economics



2. The Economic and Political Weekly

3. International Journal of Health Economics and Management

#### SEMESTER -II

#### PE5104: Health Promotion Approaches and Methods

#### By the end of this module, student will able to:

- Explain the principal methods and theoretical approaches for effective health promotion programmes and interventions.
- Apply tools and techniques to designing health promotion interventions
- Apply theories and tools for promotion of healthy life style

#### Contents:

- Introduction to health promotion
- Foundations for health promotion
- Social determinants and health promotion
- Communication strategies for health promotion
- Overview of current national health policies, national health programs their health promotion strategies
- Community need assessment for designing an effective health promotion activity
- Evaluation of health promotion plans
- Substance abuse epidemic in parts of India
- Smokeless (chewable) and smoked tobacco addictions in parts of India
- Drunken driving: social and personal responsibilities and control measures
- Stigmatization of health conditions
- Behavioural issues in children and teens: substance abuse, suicide patterns

• TV and other media as influencers of healthy/non healthy lifestyle

#### **Tutorial:**

- Formulating health promotion strategies
- Devising communication packages for health promotion

#### Text Book(s):

- 1. Detels R, Gulliford M, Karim QA, Tan CC. Oxford Textbook of Global Public Health. 6th edition. Oxford University Press, 2015.
- 2. Naidoo J, Wills J. Foundations for Health Promotion. Elsivier Publications, 2016.

#### **Reference Book(s):**

1. McKenzie J, Neiger B, Thackeray R. Planning, Implementing, & Evaluating Health Promotion Programs: A Primer. Pearsons Publications, 2016.

Journals: Relevant articles from:

- **1.** Health Promotion International
- 2. The American Journal of Health Promotion

#### SEMESTER -II

#### PE5106: Introduction to Financial Management and Budgeting

By the end of this module, students will be able to:

- Describe the key concepts of financial management and budgeting
- Explain the factors that are driving healthcare costs and measures to reduce it
- Prepare a budget for a given health intervention
- Measure the financial performance in healthcare **Contents:**



- Introduction to financial management
- Tools of financial analysis and planning in health care
- Cash flow, accounts and balancing budgets
- Cost and dividends for health outcomes
- Effectiveness and efficiency
- Sustainability of Health Programs

#### **Tutorial:**

- Effectiveness and efficiency
- Tools of financial analysis

#### Text Book(s):

1. Nair KS. Health Economics and Financing. New Century Publications, 2019.

2. Baker JJ. Baker RW, Dworkin NR. Health Care Finance: Basic Tools for Nonfinancial Managers. 5<sup>th</sup> edition. Jones and Bartlett Publishers, Inc, 2017.

#### **Reference Book(s):**

- 1. Ross KT. Practical Budgeting For Health Care: A Concise Guide. 1<sup>st</sup> edition. Bartlett Publishers, Inc, 2020.
- 2. Raman AV, Björkman JW. Public-Private Partnerships in Health Care in India: Lessons for developing countries. Routledge, 2017.

Journals: Relevant articles from:

- 1. International Journal of Health Economics and Management
- 2. The Economic and Political Weekly

#### SEMESTER II

# PE5108: Social and Behaviour Change, Effective Communication in Health Care

By the end of this module, students will able to:

- Appreciate socioeconomic determinants of health
- Describe the factors affecting human behaviour
- Apply socio-behavioural model in designing public health interventions
- Enlist factors affecting health communication
- Apply tools and techniques for designing effective health communication intervention

#### **Contents:**

- Introduction on 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
- Introduction to behaviour change theories and communication
- Health and human behaviour
- Medical anthropology
- Implementing and managing social and behaviour change communication in public health: Information Education and Communication (IEC), Inter Personal Communication (IPC), Behaviour Change Communication (BCC), Social Behaviour Change Communication (SBCC)
- Human behaviour and communication, its role in public health problems and solutions
- Public speaking
- Verbal vs. Non-verbal communication
- Various forms of written communication

- Evidence based advocacy
- Consensus building
- Using audio visual aid in communication
- Etiquettes and professionalism

#### Tutorial:

- Examination of various communication materials in health programmes
- Preparation of audience, strategy, methods & contents of communications for a given health problem

#### Text Book(s):

- 1. Mark Edberg. Essentials of health behavior: Social and behavioral theory in public health . Jones and Bartlett publishers, 2013.
- 2. Park, K.Parks Textbook of Preventive and Social Medicine. 26thEdition, M/S Banarsidas Bhanot Publishers, 2021

#### **Reference Book(s):**

- 1. Warrier S. Information and Communication Technologies in Public Health A Sociological Study. CBS Publishers, 2020.
- 2. Health education: creating strategies for school and community health By Glen Gordon Gilbert, Robin G. Sawyer

Journals: Relevant articles from:

- 1. Journal of Health Communication
- 2. International Journal of Behavioural and Health Care research

#### SEMESTER-II

#### PE5184 – Internship

- Two months' internship will be undertaken by all the candidates with an aim to integrate learning and practice in an active public health organization. This can be undertaken at governmental or non-governmental public health organizations or program management units. The internship should include the candidate's role and support in assessing, monitoring, or conducting surveillance of health problems/services in a population; research on population-based health problems; developing and/or implementing policies and intervention strategies to meet public health needs. Overall it should contribute to the organization, and should help in understanding public health management and coordination and gaining personal confidence and leadership experience. Although finding a suitable internship opportunity lie with the candidate him/herself, mentors will facilitate the process.
- After the completion of 2 months of internship, candidates will be expected to submit a brief summary of public health program/challenge dealt with and solution proposed or implemented by the candidate at the end of second semester. Students have to submit internship Diary duly signed by the respective supervisor in the organizations where they had undergone internship. The will appear for an interview with the assigned faculty of KSPH to discuss about the work during Internship.The Internship carries 2 credits



By the end of his module, students will be able to:

1. Appreciate the sexual and reproductive health issues and services at local, national and global level

2. Describe the adolescent health issues and health programs

- 3. Describe the child health issues and programs
- 4. Appreciate determinants for maternal and child health disparities
- 5. Describe various schemes under RCH programme

6. Apply tools and techniques to design, implement and evaluate RCH interventions

#### **Contents:**

- Introduction to the RMNCH+A services historical context, evolution, coverage and innovations
- Various components of service delivery under RMNCH+A (including GoI programs)
- Maternal, New-born and Child Health (MNCH) services in the country
- Adolescent health
- Role of gender in public health programs
- Evolution of RCH services in the country Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs)
- Innovations in service delivery
- Framework for evaluation of services

#### **Tutorial:**

- Universal Immunization Programme & Cold Chain system in India
- MCH Tracking System in India
- Calculation & interpretation of reproductive health indicators, Interstate & inter-country comparison of indicators
- Calculation & interpretation of child health indicators, Interstate & intercountry comparison of indicators, examination of current immunization status of mother & child and development of immunization schedule

#### Text Book(s):

- 1. Park, K.Parks Textbook of Preventive and Social Medicine. 26thEdition, M/S Banarsidas Bhanot Publishers, 2021
- 2. National Health Program Of India National Policies And Legislations Related To Health by J Kishore (2019). Century Publications

#### **Reference Book(s):**

1 Fertility, Health and Reproductive Politics: Re-imagining Rights in India by Maya Unnithan Routledge; First edition (2019)

#### Journals:

- 1. Indian Journal of Maternal and Child Health
- 2. Journal of Adolescent Health
- 4. Lancet child and adolescent health

#### SEMESTER - III

### PE6103: Introduction to Design and Evaluation of Public Health Programs

By the end of this module, students will be able to:

- Describe the process of health programme design
- Apply tools and technique to design, and evaluate health programmes **Contents:**
- Concepts underlying the design of health programs

- Basic approaches to the design, analysis and interpretation of health programs
- Communicate in public health research
- Framework to evaluate the effectiveness of health programme implementation
- Process, outcome and impact evaluation

#### Tutorial:

- Case Study: how to integrate a package of care for a specific problem into a platform of healthcare delivery
- Process, Outcome and Impact evaluation of a given health programme **Text Book(s)**:
- Centers for Disease Control and Prevention. Introduction to program evaluation for public health programs: A self-study guide. Atlanta, GA: Centers for Disease Control and Prevention, 2011. (https://www.cdc.gov/eval/guide/cdcevalmanual.pdf)
- 2. Issel LM. Health Program Planning And Evaluation. 3<sup>rd</sup> edition. Jones and Bartlett Publishers, Inc, 2013.

#### **Reference Book(s):**

1. Grembowski D. The Practice of Health Program Evaluation. 2<sup>nd</sup> Edition. SAGE publication, 2015.

Journals: Relevant articles from:

1. Evaluation and Program Planning

#### SEMESTER III

#### **PE6105:Principles of Research Methods:**

By the end of this module, students will be able to:

- Describe different study designs to undertake public health research
- Appreciate ethical issues in research
- Apply tools and techniques to conduct primary research in community and health facility settings
- Apply tools and techniques to write scientific papers for publication

**Contents:** 

- Objectives of research
- Research design
- Ethical issues in research
- Tools and Measurements in research
- Sample size and sampling
- Understanding and analysis of
  - Qualitative data and research
  - Quantitative data and research
  - Mixed methods
- Public health surveillance and research

#### Tutorial:

- Literature review
- Preparation of research protocol for a given research question
- Referencing using open software i.e. Zotero or Mendeley
- Quantitative and qualitative research data analysis using computer software programmes
- Writing a research proposal and publishing articles



#### Text Book(s):

- 1. Kothari CR, Garg G. Research Methodology: Methods and Techniques. 4th Edition. New Age International Publishers, 2019.
- Leon Gordis. Epidemiology. 6<sup>th</sup> edition. Saunders (Elsevier Inc) Publication, 2019.

#### **Reference Book(s):**

1. Friedman, L.M et al. Fundamentals of Clinical Trials. 5<sup>th</sup> Edition. Springer Publication, 2015.

2. Flick, Uwe. An introduction to qualitative research. 4<sup>th</sup>edition. Sage, 2010. **Journals**: Relevant articles from:

- 1. Operation Research for health care
- 2. Qualitative Research Journal(QRJ)

#### SEMESTER - III

#### PE6107: Environmental and Occupational Health

By the end of this course, the student will able to:

1. Identify current environmental health problems and explain its mitigation strategy

- 2. Describe national and international environmental protectionpolicies
- 3. Apply tools and techniques to conduct environmental risk & impact assessment

4. Identify occupational health and safety issues in workplace and suggest appropriate interventions

#### **Contents:**

- Theories and history of environmental health
- Environmental health policy and legal mechanisms in a national and international context
- Ecosystems in various settings (linking the built environment, transport, housing and green space to human health)
- Environmental pollution, waste disposal and treatment
- Lifestyle and dietary effects on health, food safety and sanitation
- Occupational Health: Hazards at workplace and work safety; Prevention of occupational hazards; Laws related to occupational health; Various government and other schemes for working population in India
- Climate Change & Health
- Biomedical Waste Management
- Management of environmental hazards, natural disasters
- Central Pollution Control Board (CPCB) guidelines
- Environmental health impact assessment

#### Tutorial:

- Environmental health impact Assessment, Biomedical Waste Management
- Water quality analysis, indoor pollution assessment, Air quality assessment **Text Book(s)**:
- 1. Park, K.Parks Textbook of Preventive and Social Medicine. 26thEdition, M/S Banarsidas Bhanot Publishers, 2021
- 2. Robert H. Friis. Essentials of Environmental Health. Jones & Bartlett Publishers, 2018

#### **Reference Book(s):**

1. World Health Organization. Essential environmental health standards in health care. WHO, Geneva, 2008.



**2.** J Kishore. National Health Program of India National Policies and Legislations Related to Health. 13<sup>th</sup> Edition. Century Publications, 2019.

Journals: Relevant articles from:

- 1. Occupational and Environmental Medicine (OEM)
- 2. The Journal of Environmental Health

#### SEMESTER III

#### PE6109: Law and Ethics in Public Health

At the end of this course, students will be able to:

1. Appreciate the laws, policies and regulations in relation to public health and healthcare

- 2. Describe the ethical principles in public health and health research
- 3. Describe the process of ethical approval

4. Apply tools and techniques to assess the impact of public health laws and regulations

#### Contents:

- Concept and definitions of Law, Ethics, Public Health Law and Public Health Ethics, comparison between Law & Ethics
- Human rights in public health Right to health International & National prospective, Health as a human Right
- Role of governments in managing health of people,
- Formulation of Laws and policies concerning public health, enforcement Mechanism,
- Public health regulations in Indian context,
- Regulations during emergencies and outbreaks
- Addressing newer challenges: Bioterrorism, conflicts and emerging infectious diseases
- Public Health laws in globaleconomy, Global health hazards and security,
- Concept of governance and institutions, Political nature of evidence for policy making inhealth
- Different forms of power, influential to policymaking, Different theories useful in policy analysis,
- Ethical Principles, Models, and Approaches, Functions of Public health ethics,
- Research Ethics, Medical/bio- ethics, Public Health Ethics, Publication Ethics
- Ethical Analysis, Public Health Ethics Tools
- Identifying and clarifying ethical dilemma
  - o Individuals rights vs. Public good
  - Allocating Scarce Health care Resources
  - Protection of vulnerable population
  - Privacy and Data Confidentiality
  - Community Engagement & Information Sharing

#### Tutorial:

• Ethical Analysis of a given situation or public health intervention

#### Text Book(s):

1. Kennan K. Medicine and law. Oxford University Press, 2014.

#### **Reference Book(s):**

- Kaebnick G. Taking Sides: Clashing Views on Bioethical Issues. 18th edition. Mc Graw Hill Publishers, 2019.
- 2. Indian Council for Medical Research. National Ethical Guidelines for Biomedical and Health Research involving Human Participant. ICMR, 2017.



#### Journal:

- 1. Indian Journal of Medical Ethics
- 2. The Journal of Law, Medicine & Ethics

#### **SEMESTER IV:**

#### PE6162: Epidemiology (ELECTIVE)

By the end of this module, students will able to:

- Explain advanced concepts in bio-statistics and epidemiology
- Use software for statistical modelling
- Describe epidemiology of select communicable and non-communicable diseases of national and global importance
- Apply tools and techniques for disease burden monitoring and modelling of health events
- Conduct community surveys, analyse survey data and write the survey report
- Suggest interventions for disease prevention

#### **Contents:**

#### i.Advanced Bio-statistics:

- Principles of regression
- Methods of regression
- Linear regression
- Logistic regression
- Poisson regression
- Cox proportional hazards regression
- Regression diagnostics
- Introduction to multilevel modelling
- Introduction to data imputation
- Choosing the best models

#### *ii.Advanced* Epidemiology:

- Directed acyclic graphs and conceptual framework
- Confounding bias and methods to reduce confounding
- Selection bias
- Information bias
- Measures of validity and reliability
- Nested study designs
- Advanced designs in clinical trials
- Systematic reviews and meta-analysis overview
- Epidemiology and management of Vector Borne Diseases
- Health measures following disasters
- Various public data sources: CRS, SRS, Census, NFHS, DLHS, HMIS, MCTS, etc.
- *iii.* Survey design and methods:
- Pre survey formative research
- Sampling and sample size calculations
- Ethical issues in surveys
- Tool development
- Conduct of surveys
- Quality control and assurance in surveys
- Survey data analysis
- Identify appropriate research designs for a range of questions in health



- Describe the steps involved in planning and conducting a research project
- Evaluate the strengths and weaknesses of various data collection methods

#### iv. Communicable disease epidemiology:

- Recognize the burden of communicable diseases (CD) affecting the population
- Examine factors contributing to the persistence of infectious diseases
- Understand reasons for emergence and re-emergence of infectious diseases
- Key concepts covered are:
- Incubation periods
  - Epidemic patterns
  - Modes of transmission
  - Transmission dynamics
  - Measures of infectiousness
  - Secondary attack rates
- Analyze the transmission dynamics of diseases and design appropriate control measures
- Apply basic infectious diseases epidemiological skills to address major emerging and re-emerging communicable diseases
- Surveillance: Case in point: Integrated Disease Surveillance Program (IDSP)
- Epidemiology of common communicable diseases like TB, Malaria, Leprosy, Polio, STIs, AIDS, Meningococcal meningitis, Hepatitis B, and Measles (mathematical models of infection dynamics, outbreak investigation and surveillance, schedules, adverse reactions, contraindications, vaccine efficacy, impact assessment)
- Adverse Event Following Immunization (AEFI) investigation
- v. Non-communicable diseases (NCD) epidemiology:
- Describe and understand the epidemiology of NCDs
  - Cardiovascular diseases
  - Hypertension
  - Diabetes mellitus
  - Cancers
  - Mental health
  - o Stroke
  - Burns/trauma/ accidents etc.
- Comprehend the upstream and downstream determinants of NCDs
- Understand the Individual approaches/or high-risk approaches and population based/ or public health approaches to prevent NCDs
- Recognize the risk factor approach to prevent non-communicable diseases
- Comprehend the Population based/public health approaches to prevention of common NCD risk factors (physical inactivity, tobacco and unhealthy diet)
- Familiarize with the current projects on targeting the prevention of NCDs, including, innovations in prevention
- How prevention of NCDs interlinks with Communicable diseases. How women and child health, health of the girl child links to prevention of NCDs
- Recognize Economic burden of NCDs and benefits of prevention
- Comprehend how sustainable development and prevention of NCDs go hand in hand



- Comprehend the power of policy and role of environment in the prevention of NCDs
- Population-based screening
- Surveillance of cancers including cancer registry

#### Tutorial:

- Outbreak Investigation
- Public Health Surveillance
- Screening of NCD or its risk factors in the community
- Tool development and validation
- Use of EpiInfo and OpenEpi for sample size estimation
- Use of Epicollect and Google forms for data collection and use of EpiData, Excel spreadsheet, etc. for data entry
- Quality control of Data
- Analysis of Secondary Data using Software
- Use of SPSS/R for advanced data analysis

#### Text Book(s):

1. Leon Gordis. Epidemiology. 6th Edition. Saunders (Elsevier Inc) Publication, 2019.

#### **Reference Book(s):**

- 1. Rothman K. Modern Epidemiology. 3<sup>rd</sup> Ed. Wolters-Kluer Publications, 2012.
- 2. Thakur JS. Public health approaches to noncommunicable diseases. Wolters Kluwer, 2015.
- 3. Keith TZ. Multiple Regression and Beyond. 3<sup>rd</sup> Edition. Routledge, 2019.

#### Journals: Relevant articles from:

- 1. International Journal of Epidemiology
- 2. Journal of Infection and Public Health
- 3. International Journal of Non-communicable diseases

#### SEMESTER IV:

#### PE6164: RMNCH+A(ELECTIVE)

By the end of his module, students will be able to:

- 1. Explain RMNCH+A issues and services at local, national and global level
- 2. Explain the role of gender in health
- 3. Describe public health nutritional interventions for health of the people
- 4. Describe national programmes on RMNCH+A

5. Apply tools and techniques to design, implement and evaluate RCH interventions

#### **Contents:**

- *i.* Reproductive and Sexual Health
- Fundamentals of reproductive biology
- Adolescent Sexual and Reproductive Health
- Understanding Reproductive Health Policy
- Family Welfare and Reproductive Health measures
- Reproductive Health programs in India
- ii. Maternal, Newborn and Child Health (MNCH)
- Introduction to maternal, new-born and child health programs and their behavioural basis
- Historical developments in MCH in India
- Reproductive & Perinatal Epidemiology
- Prenatal and Infant Growth and Development
- Issues in the Reduction of Maternal and Neonatal Mortality



- Preventing peri-natal and infant mortality
- Infectious Disease and Child Survival
- Nutrition and Growth in Maternal and Child Health
- Legislation and programs in MCH
- *iii.* Adolescent Health:
- Overview of population health approaches for adolescents
- Adolescent Health and Development
- The Social Context of Adolescent Health and Development
- International Adolescent Health
- Adolescent Health status in India
- Adolescent Health Development policy and systems
- Health issues specific to adolescents: anaemia, teenage pregnancy, menstrual hygiene, obesity, mental health promotion and illness prevention, substance use prevention, violence, media etc.
- *iv. Gender and Health:*
- Define concepts Gender, vulnerable populations, gender equality and equity and emerging issues
- Understand the difference between equity and equality
- Understand different forms of social exclusion
- Explain the difference between sex and gender and how these variables, combined with other forms of social exclusion impacts on health
- To increase understanding of the importance, benefits and urgency to identify and reduce barriers and address the needs of women and socially excluded groups, and promote their agency in the context of accessing health care and related information
- To increase understanding of the inter- sectionalism between gender and other types of social exclusion/inclusion and patients' experiences in accessing and utilizing health services and the impacts on uptake and utilization of services
- To increase understanding of the realities of discrimination from the grass root perspective
- To identify good practices in Gender and Social Inclusion (GSI) within India
- To become familiar with toolkit for including GSI in public health research, programs, policies and advocacy
- iv. Public Health Nutrition
- Appreciate the basic concepts and principles of foods and nutrition relevant to human health
- Summarize population based dietary and nutritional recommendations
- Define the concept, purpose and scope of Public Health Nutrition
- Understand the definition, utility and applications of epidemiology in nutritional sciences
- Recognize the role of community nutrition in improving human health
- Utilize suitable data and assessment methodologies to conduct community needs assessment
- Recognize the pillars of a healthy community
- Identify the most relevant nutrition concerns in the community at present and enlist strategies for their prevention and management (Adolescent, Women, Maternal and child under-nutrition, nutrition transition, overnutrition and chronic diseases)
- Demonstrate an understanding of principles of nutrition education and enlist the steps of developing nutrition education programs



- Demonstrate an understanding of project planning and management in nutrition programmes
- Appreciate inter-sectoral nature of nutrition and food policy
- Enlist the features of various ongoing nutrition programs
- Under/over nutrition

#### Tutorial:

- Universal Immunization Programme & Cold Chain system in India
- MCH Tracking System in India
- Calculation & interpretation of reproductive health indicators, Interstate & inter-country comparison of indicators
- Calculation & interpretation of child health indicators, Interstate & intercountry comparison of indicators, examination of current immunization status of mother & child and development of immunization schedule
- Child Nutrition Assessment
- Assessment of Nutritional value of food
- Fortified foods, food supplements

#### Text Book(s):

1. Park K: Park's textbook of preventive and social medicine, M/s Banarasidas Bhanot, Jabalpur.

#### **Reference Book(s):**

- 1. Reproductive Justice and Women's Voices: Health Communication across the Lifespan by Beth L. Sundstrom Lexington Books; Reprint edition (2016)
- 2. Das AD. Adolescents Girls and Reproductive Health: A Global Change. Mittal Publications, 2020.
- 3. Detels R, Gulliford M, Karim QA, Tan CC. Oxford Textbook of Global Public Health. 6th edition. Oxford University Press, 2015.
- 4. World Health Organization.Gender analysis in health: a review of selected tools. WHO, 2003. Available at

http://apps.who.int/iris/bitstream/10665/42600/1/9241590408.pdf Journals:

- 1. Indian Journal of Maternal and Child Health
- 2. Journal of Adolescent Health

#### **SEMESTER - IV**

#### PE6166: Health System Management

By the end of this module, students will be able to:

- Demonstrate strategic thinking and entrepreneurship skills in healthcare
- Formulate, implement, monitor and evaluate operational research
- Apply tools and techniques of financial management in healthcare settings
- Demonstrate managerial and leadership skills in healthcare settings
- Apply tools and techniques to design, implement and evaluate health communication interventions

#### **Contents:**

#### i.Strategic management, Innovations and Entrepreneurship in healthcare

- Strategy: various definitions
- Major concepts and frameworks in strategic management: SWOT, experience curve, portfolio theory, value chain
- Strategic thinking and decision making



- Strategic planning: Environmental, scenario, implementation and evaluation
- Sustainability
- Various sources for financing a new venture: finalize your target audience
- Preparing a business speech, elevator pitch
- Innovations in public health
- Health informatics, e-Health
- Telemedicine, m-Health
- Conflicts management and negotiations in business world
- Business modelling: preparing your own business model
- Peer review of individual business model

#### *ii.Advanced Operations Research*

- History of operation research and seven stages of OR
- Safety, Acceptability, Feasibility and Effectiveness (SAFE) in designing Public Health Interventions
- Field interventions and field trials
  - o Stage 1: Formulate/define organizational problem
  - Stage 2: Observe the system
  - Stage 3: Create a mathematical model of the problem
  - o Stage 4: Model validation and application to the problem
  - Stage 5: Identification of a suitable alternative
  - Stage 6: Results discussion and conclusion
  - Stage 7: Implementation and evaluation of the recommendation

#### iii.Advanced Financial management and budgeting

- Introduction to financial management
- Tools of financial analysis and planning in healthcare
- Cash flow, accounts and balancing budget
- Cost and dividend for health outcomes
- Effectiveness and efficiency
- Sustainability of health programs

#### iv.Organizational management and services

- Components of organization: Purpose, Coordination, Division of labour and Hierarchy
- Project management lifecycle
- Setting common goals and objectives
- Analytical thinking
- Risk identification and control
- Leadership
- Priority setting and resource allocation
- Why organizations fail? learning from case stories
- vi. Effective communication in public health:
- Public speaking
- Effective Communication: Verbal versus Non verbal communication
- Various forms of written communication
- Evidence based advocacy
- Consensus building
- Using audio-visual aid in communication
- Etiquette and professionalism

#### Tutorial :

- Comparison of health systems between developed and developing countries
- Health Management Information Systems
- Triage in Disaster Management



- Telemedicine
- Project management life cycle
- Financial Analysis
- Budgeting
- IEC planning for public health interventions
- Smoking Cessation counselling

#### **Text Books:**

- 1. Detels R, Gulliford M, Karim QA, Tan CC. Oxford Textbook of Global Public Health. 6th edition. Oxford University Press, 2015.
- 2. Nair KS. Health Economics and Financing. New Century Publications, 2019.
- 3. Lal S. Public Health Management Principles And Practice. 2<sup>nd</sup> edition. CBS Publisher, 2018.

#### **Reference Book(s):**

- 1. Raman KV, Mavalankar DV, Govli D. Strategic Issues and Challenges in Health Management. Sage Publications, 2008.
- 2. Baker JJ. Baker RW, Dworkin NR. Health Care Finance: Basic Tools for Nonfinancial Managers . 5th edition. Jones and Bartlett Publishers, Inc, 2017.
- 3. Ross TK. Practical Budgeting For Health Care: A Concise Guide. Jones and Bartlett Publishers, Inc; 2020.

#### Journals: Relevant articles from:

- 1. International Journal of Health care Management
- 2. Lancet Global Health

#### **SEMESTER - IV**

#### PE6168: Health Programme, Policy and Planning

*i.Health policy, process and planning:* 

- Policy making: key components
- Policy framework
- Stake holders in policy making
- Effects of different interest and advocacy groups in influencing health policy
- Translating research in policy making
- Effects of national and international affairs on health policy
- Introduction to different national population, disease control, tobacco control, nutrition, maternal and child health policies
- Short term versus long term policies
- Resources allocation to optimize health
- Using research and data to drive good policy making
- ii.Design and evaluation of public health programs (including current NHPs):
- Concepts underlying the design of health programs;
- Basic approaches to the design in health programmes, with a focus on low resource settings
- Analysis and interpretation of studies/programs;
- Communication in conducting public health research
- National health programmes in India (including goals, objectives, purposes, organization, man power, sources, activities, roles and responsibilities)

*iii.Translating research for Health Policy and Advocacy:* 

- Different forms of power influential to policy making
- Concepts of Governance and Institutions
- Different theories useful in policy analysis

- Political nature of evidence for policy making in health
- Written and verbal competence in communicating evidence to inform policy
- Critical appraisal of issues in health policy and financing

iv.Current issues in health policy: National and Global perspective:

- Theory explaining public health action, its evolution and application in health policy
- Methods of assessing the health impact of different types of policy; national and global perspective
- Assessing health impacts of different policies across sectors
- Impact of health threats and interventions to counter health threats including crisis management

#### v.Role of Non-governmental Organizations (NGOs) in health care:

- Health service delivery and program Implementation
- Research and evidence generation
- Training and education
- Inter-sectoral coordination in health including Public Private Partnership
- Advocacy and planning in health care

#### Tutorial:

- International developmental NGOs in India
- Policy Formulation
- International Health Policy
- Bio-terrorism
- Policy Analysis of select health policies
- Assessment of health impacts of different policies across sectors

#### Text Book(s):

- 1. Detels R, Gulliford M, Karim QA, Tan CC. Oxford Textbook of Global Public Health. Sixth Edition. Oxford University Press, 2015.
- 2. Seavey JW. Health Policy Analysis: Framework and Tools for Success. 1<sup>st</sup> edition. Springer Publishing Company, 2014.

#### **Reference Book(s):**

- 1. Crinson I. Health Policy: A Critical Perspective.Cambridge University Press, 2009.
- 2. Kelkar S. India's Public Health Care Delivery: Policies for Universal Health Care. Macmillan publishers, 2021.

#### Journals: Relevant articles from:

- 1. The Lancet Global Health
- 2. International Journal of Health Policy and Management (IJHPM)

#### PE6170: Global Health

At the end of this module, students will be able to:

- Describe important international health issues including climate change and international health regulations
- Demonstrate the application of technology in public health
- Explain Antibiotic resistance and its impact
- Describe national health programme and policies for vulnerable population and people with mental illness
- Apply tools and techniques to assess the health needs of vulnerable population



#### Contents

#### i. International Health

- Globalization, health and developmental agenda
- International health issues and international collaboration
- Climate change and international collaborations
- Bio-terrorism,
- International health regulations
- Technology transfer
- Health Tourism
- Global actions in public health emergencies- Covid-19, Ebola, influenza etc.

#### ii. Technology & Public Health

- Biotechnology and Public Health
- Digital Health
- Digitalization of Data
- Public health informatics
- Current advances and future prospects of technology in public health

#### *iii. Antibiotic Resistance*

- Antibiotic use Global and National Scenario
- Antibiotic resistance and factor associated with it
- Surveillance of antibiotic resistance
- Risk management and prevention of antibiotic resistance
- Antibiotic Stewardship

#### *iv.* Public Health Needs of Specific Population Groups

- Health needs of people living in urban slums, homeless & street dwellers, tribal population, transgender, Old age people, People with disabilities, Forced Migrants and other displaced population, People in Prisons, Gender & public health.
- Health policies & programmes for the above vulnerable population.

#### v. Mental Health

- Global and Indian prospective on mental illness and mental health
- Epidemiology of Common Mental illness
- Community Psychiatry
- Mental health policy and legislation

#### Text Book(s)

- 1. Detels R, Gulliford M, Karim QA, Tan CC. Oxford Textbook of Global Public Health. Sixth Edition. Oxford University Press, February 2015, ISBN: 978-0-19-966175-6.
- 2. Park, K. Parks Textbook of Preventive and Social Medicine.26th Edition, M/S Banarsidas Bhanot Publishers, 2021.

#### **Reference Book(s):**

- 1. Anne-Emmanuelle Birn, Yogan Pillay, and Timothy H. Holtz. Textbook of International Health: Global Health in a DynamicWorld Oxford Textbook of Public Mental Health. 3<sup>rd</sup>Edition ISBN: 0195300270.
- Dinesh Bhugra, Kamaldeep Bhui, Samuel Yeung Shan Wong, and Stephen E. Gilman. Oxford Textbook of Public Mental Health. 1<sup>st</sup>Edition.Oxford University Press, 2018, ISBN: 978-0-19-879299-4.

3. Diatha Krishna Sundar; Shashank Garg; Isha Garg. PublicHealth in India: Technology, governance and service delivery.Routledge India Publication, 2017. ISBN 9780815373339

Journals: Relevant articles from:

- 1. The Lancet Global Health Health
- 2. Community Mental Health Journal
- 3. Technology & Healthcare

#### SEMESTER IV

#### PE6182: Dissertation / Capstone Research

After completion of the dissertation work, students will able to

- 1. Design and implement research work
- 2. Apply tools and techniques to conduct health research
- 3. Identify important public health issues and suggest appropriate solutions
- 4. Write a scientific report on researched topic

Each candidate is required to carry out a study on a selected research project under the guidance of a recognized postgraduate teacher of the KSPH. The work and results of such a study shall be submitted in the form of a dissertation (15000 words) for evaluation. A manuscript based on study shall be submitted without fail along with dissertation report for publication in a relevant journal. The dissertation is aimed at skilling postgraduate students in research methodology and techniques. It includes identification of the problem, formulation of a hypothesis, review of literature, getting acquainted with recent advances, designing of a research study, collection of data, analysis, and comparison of results and drawing conclusions. In exceptional cases, dissertation based on secondary data analysis may be considered with prior approval of the Director, KSPH.

A co-guide can be opted wherever required with prior permission from the Director, KSPH. The Co-Guide should be either a post graduate teacher or an expert in the specialized area in public health recognized by the School. In the event of registered Guide leaving the institute permanently for any reason, the Guide may be changed with prior permission from the Director, KIIT School of Public Health.

The dissertation work is spread over 2<sup>nd</sup> (conception & topic finalization), 3<sup>rd</sup> (finalization of tools, research committee & ethical clearance) and 4<sup>th</sup> semester (field work & submission). Each candidate has to conceptualize and finalize research topic in consultation with his/her mentor and proposed guide and submit the same to the school academic division during the 2nd semester.

In third semester candidates have to also to submit their research proposal for technical as well as ethical review of respective committees of the school. In third semester seminars and journal clubs will be aligned with candidate's research area. The schedule for completion of literature review, tool development, research proposal for technical review and ethical review will be notified in the 2<sup>nd</sup>semester.

#### **Technical review and Ethical review:**

Each proposing candidates have to obtain both technical and ethical clearance before they should be obtained before registration of dissertation with the university and implementation of study. The technical review and IEC submission format can be obtained from the academic division of the school. IEC approval along with research proposal should be forwarded to the University for Registration of research topic. Once the research proposal is approved and registered by the university no change in the topic or Guide will be allowed without the prior approval of the University.

#### Submission of the Dissertation and Evaluation:

The dissertation complete in all respects and duly certified by the Guide, Co-Guide, and Director or the Authority in – charge of the course should be forwarded it to the University for Evaluation.

\*\*\*\*\*\*



KIIT School of Public Health (KSPH) KALINGA INSTITUTE OF INDUSTRIAL TECHNOLOGY (KIIT)

Deemed to be University (Established U/S 3 of UGC Act, 1956) Bhubaneswar, Odisha, India