



SHRI VISHWAKARMA SKILL UNIVERSITY

(A State Skill University, setup by an Act of Legislature in 2016)

Faculty: Skill Faculty of Applied Sciences and Humanities

Department: Skill Department of Life Sciences and Health Care

Program: M.Voc. (Public Health)

Duration: 2 Years (4 Semesters)

Scheme and Syllabus

Session: 2020-21 Onwards

SCHEME: M.VOC. (PUBLIC HEALTH)

Semester-I															
Category	Subject Code	Subjects	Credits			Marks						Total	Hours		
						Practical			Theory						
			T	P	To	I	E	To	I	E	To		T	P	To
General Education Component	PH802 PH802L	Fundamental of Management & Organizational Behaviors	3	2	5	35	15	50	15	35	50	100	45	60	105
	PH803 PH803L	Health Informatics and Health Technology	3	2	5	35	15	50	15	35	50	100	45	60	105
	PH805	Medical Tourism and Health Insurance	2		2				30	70	100	100	30		30
	PH806	Public Health and National Health Mission	2		2				30	70	100	100	30		30
	PH801 PH801L	Epidemiology and National Health Programs	3	2	5	35	15	50	15	35	50	100	45	60	105
	PH807 PH807L	Quality Assurance in Healthcare	3	2	5	35	15	50	15	35	50	100	45	60	105
	GEC Total			16	8	24	140	60	200	120	280	400	600	240	240
Skill Education Component	PH808 PH808L	Survey Design Methods, Health Communication & Promotion	2	2	4	35	15	50	15	35	50	100	30	60	90
	PH804 PH804L	Healthcare Systems & Urban Health	2	2	4	35	15	50	15	35	50	100	30	60	90
	SEC Total				4	8	70	30	100	30	70	100	200	60	120
Total			20	12	32	175	75	300	150	350	500	800	300	360	660

Semester-II																
Category	Subject Code	Subjects	Credits			Marks						Total	Hours			
						Practical			Theory							
			T	P	To	I	E	To	I	E	To		T	P	To	
Skill Education Component	OAH-802	MOOC-I	2		2				30	70	100	100	30	0	30	
	OMS-501	Entrepreneurship	2	0	2	0	0	0	30	70	100	100	30	0	30	
	GEC Total			4	0	4	0	0	0	60	140	200	200	60	0	60
	OJT801	On the Job Training	0	24	24	245	105	350	0	0	0	350	0	720	720	
	SEC Total			0	24	24	245	105	350	0	0	0	350	0	720	720
Total			4	24	28	245	105	350	60	140	200	550	60	720	780	



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Semester-III															
Category	Subject Code	Subjects	Credits			Marks						Total	Hours		
						Practical			Theory						
			T	P	To	I	E	To	I	E	To	T	P	To	
General Education Component	PH903 PH903L	Health-Statistics & Data Analytics (SPSS)	4	2	6	35	15	50	15	35	50	100	60	60	120
	PH906 PH906L	Research Methodology for Healthcare	4	2	6	35	15	50	15	35	50	100	60	60	120
	PH901 PH901L	Communicable and Non-communicable Disease & Public Health Nutrition	4	2	6	35	15	50	15	35	50	100	60	60	120
	PH905 PH905L	Planning, Supervision, Supply Chain Management and Evaluation of Public Health Programmes	4	2	6	35	15	50	15	35	50	100	60	60	120
	GEC Total			16	8	24	140	60	200	60	140	200	400	240	240
Skill Education Component	PH902 PH902L	Demography and Population Sciences	2	2	4	35	15	50	15	35	50	100	30	60	90
	PH904 PH904L	Health Economics & Health Finance	2	2	4	35	15	50	15	35	50	100	30	60	90
	SEC Total			4	4	8	70	30	100	30	70	100	200	60	120
Total			20	12	32	210	90	300	90	210	300	600	300	360	660

Semester-IV																
Category	Subject Code	Subjects	Credits			Marks						Total	Hours			
						Practical			Theory							
			T	P	To	I	E	To	I	E	To	T	P	To		
Skill Education Component	OAH902	MOOC-II	2		2				30	70	100	100	30	0	30	
	OAE101	Ethics	2	0	2	0	0	0	30	70	100	100	30	0	30	
	GEC Total			4	0	4	0	0	0	60	140	200	200	60	0	60
	OJT901	Project/ Dissertation	0	24	24	245	105	350	0	0	0	350	0	720	720	
	SEC Total			0	24	24	245	105	350	0	0	0	350	0	720	720
Total			4	24	28	245	105	350	60	140	200	550	60	720	780	

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SYLLABUS: M.VOC. (PUBLIC HEALTH)**SUBJECT: Fundamentals of Management and Organization Behaviours****CODE: PH802****CATEGORY: General Education Component**

Credit	Hours	Marks		
		I	E	T
3	45	15	35	50

Objectives

To purpose of the course is to provide fundamental knowledge and exposure to the concepts, theories and practices in the field of management. It aims to understand individual and group behaviour at work place.

Learning Outcomes

- The student demonstrates an understanding of the processes of management.
- Identify the basic functions, and management challenges in the emerging perspective.
- Students will be able to demonstrate the concept of conflict management
- Students will be able to describe the leadership qualities and attributes

Unit	Topic	Key Learning
I	Basic of Management	Concept, nature, process and significance of management; Managerial levels, skills, functions and roles; Management Vs. Administration; Contingency Management theories by - F. W. Taylor, Henry Fayol and Elton Mayo
II	Managerial Skill and Functions	Level of Management- Functions of Management; Centralization – decentralization Organization structures - Line & Staff – functions, Leading and Staffing; Controlling – Definition, Nature, Importance, Steps, Techniques
III	Introduction to Organization Behavior	Behavior - Definition, Scope, Importance, Concepts of Organization Behavior; Motivation- Definition, Theories of motivation, Mc Gregor, A.H. Maslow, Herzberg Learning- Meaning & Theories.
IV	Conflict Management	Conflict – Definition, Traditional Vs Modern view of conflict Types of conflict- intra personal, interpersonal, organizational;
V	Leadership	Leadership –Definition, Importance, qualities of leaders, types of leaders – autocratic, democratic, free – rein; Personality- Attributes of personality, Type, Ego state, Johari window. Time Management Modern Management Techniques

Text Books

- Management by Stomen and Jane
- Organisational behaviour by Stephen Robbins Filed Visit-Presentation/Case

Reference Books

- Principles and Practices of management by Shejwalkar
- Essential of management by Koontz H and Weitrich
- Principles and Practices of Management by T. N. Chabra
- Organisational behaviour by Keith & Davis
- Organisational behaviour by Fred and Luthans
- Organisational behaviour by K. Ashwatthapa

Web Links

- <https://www.swayamprabha.gov.in/index.php/program/archive/16>
- <https://www.swayamprabha.gov.in/index.php/program/archive/5>

SUBJECT: Fundamentals of Management and Organization Behaviours-Lab
CODE: PH802L
CATEGORY: General Education Component

Credit	Hours	Marks		
		I	E	T
2	60	35	15	50

Objectives

To purpose of the course is to provide fundamental knowledge and exposure to the concepts, theories and practices in the field of management. It aims to understand individual and group behaviour at work place.

Learning Outcomes

- The student demonstrates an understanding of the processes of management.
- Identify the basic functions, and management challenges in the emerging perspective.

List of Practical

1. PowerPoint Presentation to show difference between Management and Administration.
2. Case Study of Contingency Management theories by - F. W. Taylor, Henry Fayol and Elton Mayo.
3. Report writing on Level of Management.
4. Case Study on Centralization – decentralization Organization structures - Line & Staff – functions, Leading and Staffing.
5. Practical for Controlling to determine Nature, Importance, Steps and Techniques
6. Case Study of Leadership to show the following
 - Importance,
 - Qualities of leaders,
 - Types of leaders – autocratic, democratic, free.
7. Case Study of Personality- Attributes of personality, Type, Ego state, Johari window.
8. Report writing on a topic with the help of Time Management.
9. Case Study of various Modern Management Techniques.



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SUBJECT: Health Informatics & Health Technology
CODE: PH803
CATEGORY: General Education Component

Credit	Hours	Marks		
		I	E	T
3	45	15	35	50

Objectives

By the end of the course students will be able to describe basic concepts, principles and role of Health Informatics and use of technology in health care and its application in decision making.

Learning Outcomes

- Define the scope of health information technology, a broad interdisciplinary field while assessing future directions for growth and current job opportunities
- Identify how health information technology (HIT) can be implemented and used to create positive change through understanding the current healthcare
- Make use of electronic medical records (EMRs) and their requirements of integration and interoperability
- Develop quality assessments and implement change through an overview of healthcare delivery, implementation science, and clinical workflow analysis and redesign
- Relate to the trend of mobile health technology and its application in telemedicine
- Identify the key topics in health information management, including security, privacy, and confidentiality of patient data, as well as mandatory policies regarding data handling and reporting

Unit	Topic	Key Learning
I	Scope of health IT	Scope and history of health information technology, electronic medical records (EMRs), overview of healthcare delivery, clinical workflow analysis
II	Advancements in field of health IT	Advancements in field of health IT, data collection and transmission by the help of technology, use of mobile phones and smart bands.
III	Challenges	Introduction to healthcare, ethics, challenges, standards & future, important healthcare/medical laws in India medical professional.
IV	Data Handling	Redesign, security, privacy, and confidentiality of patient data, as well as mandatory policies regarding data handling and reporting

Text books

- Better Health Systems for India's Poor: Findings, Analysis, and Options. By David H. Peters, Published by World Bank Publications, 2002, ISBN 0821350293, 9780821350294

SUBJECT: Health informatics & Health Technology-Lab**CODE: PH8103L****CATEGORY: General Education Component**

Credit	Hours	Marks		
		I	E	T
2	60	35	15	50

Objectives

By the end of the course students will be able to describe basic concepts, principles and role of Health Informatics and use of technology in health care and its application in decision making.

Learning Outcomes

- Define the scope of health information technology, a broad interdisciplinary field while assessing future directions for growth and current job opportunities
- Identify how health information technology (HIT) can be implemented and used to create positive change through understanding the current healthcare
- Make use of electronic medical records (EMRs) and their requirements of integration and interoperability
- Develop quality assessments and implement change through an overview of healthcare delivery, implementation science, and clinical workflow analysis and redesign
- Relate to the trend of mobile health technology and its application in telemedicine
- Identify the key topics in health information management, including security, privacy, and confidentiality of patient data, as well as mandatory policies regarding data handling and reporting

List of Practical

1. Case Study for health information technology,
2. Case Study for electronic medical records (EMRs),
3. Case Study for overview of healthcare delivery,
4. Case Study for clinical workflow analysis.
5. Case Study for use of mobile phones and smart bands in health.
6. Case Study related ethics, challenges, standards & future in healthcare.
7. PowerPoint Presentation for important healthcare/medical laws in India medical professional.
8. PowerPoint Presentation for mandatory policies regarding data handling and reporting.



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SUBJECT: Medical Tourism & Health Insurance**CODE: PH805****CATEGORY: General Education Component**

Credit	Hours	Marks		
		I	E	T
2	30	30	70	100

Objectives

By the end of the course students will be able to describe basic concepts, principles and role of Medical Tourism and Health Insurance in health care and its application in decision making.

Learning Outcomes

- Define the scope of Medical tourism in India
- Reasons for the boom in Medical tourism
- Classify and apply three major forms of health insurance in India i.e. Social Health Insurance, Voluntary Health Insurance, and Community Health Insurance.

Unit	Topic	Key Learning
I	Introduction	Introduction to healthcare and medical tourism, ethics, challenges, standards
II	Scope of medical tourism	Future of medical tourism important healthcare/medical laws in India medical professional.
III	Introduction to Insurance	Health Insurance, Contract, various laws of Insurance, fundamentals of health insurance
IV	Types of health insurance	Social health insurance, Voluntary health insurance, Third party administrators, Community health insurance, Government insurance schemes, Indian healthcare case laws
V	Scope and limitations	Challenges in health insurance, limitations of various schemes, Future of health insurance in India

Text Books

- Fundamentals of Life Insurance Theories and Applications Paperback – 2016 by Mishra Kanika
- Economics of Public and Private Healthcare and Health Insurance in India

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SUBJECT: Public Health & National Health Mission
CODE: PH806
CATEGORY: General Education Component

Credit	Hours	Marks		
		I	E	T
2	30	30	70	100

Objectives

Introduce students to the broad concepts of public health. Provide an in-depth understanding of various frameworks on social determinants of health and inter linkages between health and development at local, national and global levels and be able to apply that in health program planning.

Learning Outcome:

Upon completion of this course, participants will be able to:

- Describe the public health system of India
- Demonstrate some knowledge and understanding of the wider determinants of health and ill-health
- Explain understanding of the roles of people and agencies who undertake work in the promotion of public health
- Demonstrate an awareness of the debates and dilemmas that may arise from the promotion of public health.

Unit	Topic	Key Learning
I	Introduction to Public health	Definition of public health/ associated terms, Health system in India and other allied sectors, Burden of Disease, Understanding how to measure health and burden of disease, framework to explain public health approaches: Determinants of health, Health Promotion
II	Systems approach	Aims, goals, targets and objectives Input, process, output, outcome and impact Organization of Health Services in Rural & Urban areas Role of Private Sector and Civil Society AYUSH Informal Providers
III	Health Care Delivery System	Health Care Delivery System in India, Organization of services, Role of various sectors: Public and private; modern and traditional, Role of Civil Society, National Health Programmes, Evaluation of a health programme, NHM
IV	Determinants	Determinants of Health – Biological, Behavioural, Socio-economic, Cultural, Environmental, Geographical etc
V	National Health mission	Introduction to National Health Policy – 1983 & 2002, National Population Policy – 2005, National Rural Health Mission (NRHM) and National Urban Health Mission (NUHM), National Public Health Programs.

Text Books

- Koivusalo, Meri and Eeva Ollila (1997) Making a Healthy World: Agencies, Actors and Policies in International Health. Zed Books, London.
- Michael H. Merson, Robert E. Black and Anne J. Mills International Public Health: Diseases, Programs, Systems and Policies, 2nd edition.
- J. Kishore (2005), 'Health Legislations' in National Health Programmes of India, Century Publications, New Delhi.
- Public Health at the Crossroads – Achievements and Prospects. Robert Beaglehole and Ruth Bonita 2nd Edition Cambridge University Press

Web Links:

- www.nhm.gov.in www.mohfw.gov.in.
- www.rntcp.gov.in
- www.nhsrcc.gov.in

SUBJECT: Epidemiology and National Health Program**CODE: PH801****CATEGORY: General Education Component**

Credit	Hours	Marks		
3	45	I	E	T
		15	35	50

Objectives

The syllabus introduces students to the principles and basic methods of modern epidemiology. Epidemiology is defined as the study distribution and determinants of health-related states and events in defined populations and the application of this to study to solving public health problems. It also covers the estimation and interpretation of odds ratio, attributable risk and their confidence intervals. The course will build ability to link 'Basic epidemiological skills' with a plan for addressing a public health problem through a population focus.

Learning Outcomes

- To have a clear understanding of the definition and uses of epidemiology and appreciate its role in public health
- To understand the concept and practical application of various measures such as: measures of disease frequency (prevalence and incidence), measures of effect (e.g. rate/risk ratios and rate/risk differences), and measures of public health impact (e.g. population attributable risk / fraction)
- To understand various national health programmes and their needs.
- To understand the concepts of epidemics, endemics and pandemics with a knowledge of data collecting techniques and analysis to be performed.
- Ascertain causality between an exposure and an outcome

Unit	Topic	Key Learning
I	Introduction to Epidemiology	Definitions, Basic concepts and overview of terms in use, Natural history of a disease, Steps in natural history of a disease, Application of natural history in disease control, Levels of prevention for specific diseases, Modes of intervention in public health, Overview of descriptive epidemiology, Time place and person, Descriptive designs, Measurement of disease frequency, Person-time exposure, Cumulative Incidence, Incidence density, Point prevalence, Period prevalence, Rate and proportion
II	Epidemiological study designs	Epidemiological study designs Overview of study designs Descriptive studies Ecological studies, Analytical studies, Disease surveillance, Remerging and emerging diseases and containment measures/ controls..
III	Case control, Cohort and Randomised control trials	Objectives for Randomized control trials: 1. Understand the design features of randomized controlled clinical trials. 2. Understand strengths and limitations of a randomized clinical trial. 3. Understand the use of random allocation and blinding in RCTs. 4. Be able to identify the most suitable study design to use to investigate a given exposure/disease relationship
IV	National Health Programme	Evolution of National Health Programmes, various national health programmes, Evaluation of a health programme, their role and effectiveness

Text Books

- Gordis Epidemiology, 6th Edition
- Park's Textbook of Preventive and Social Medicine, Bharat Publisher 26th Edition 2019
- Modules for Dip in Health & Family Welfare Management, NIHFV

Reference Books

- Sunder Lal textbook of Preventive and Community Medicine.
- D.K Taneja's Health Policies & Programme in India, 16th Edition

Web Links

- www.nhm.gov.in
- www.mohfw.gov.in
- www.naco.gov.in
- www.rntcp.gov.in
- www.nhsrsc.gov.in

SUBJECT: Epidemiology and National Health Program-Lab**CODE: PH801L****CATEGORY: General Education Component**

Credit	Hours	Marks		
		I	E	T
2	60	35	15	50

Objectives

The syllabus introduces students to the principles and basic methods of modern epidemiology. Epidemiology is defined as the study distribution and determinants of health-related states and events in defined populations and the application of this to study to solving public health problems. It also covers the estimation and interpretation of odds ratio, attributable risk and their confidence intervals. The course will build ability to link 'Basic epidemiological skills' with a plan for addressing a public health problem through a population focus.

Learning Outcomes

- To have a clear understanding of the definition and uses of epidemiology and appreciate its role in public health
- To understand the concept and practical application of various measures such as: measures of disease frequency (prevalence and incidence), measures of effect (e.g. rate/risk ratios and rate/risk differences), and measures of public health impact (e.g. population attributable risk / fraction)
- To know the various types of epidemiological study designs and, understand their basic principles and the main analytic methods used in each specific design
- To understand various national health programmes and their needs.
- To understand the concepts of epidemics, endemics and pandemics with a knowledge of data collecting techniques and analysis to be performed.
- Ascertain causality between an exposure and an outcome

List of Practical

1. Case Study to demonstrate Overview of descriptive epidemiology to elaborate
 - a. Time place and person
 - b. Descriptive designs
 - c. Measurement of disease frequency
2. Case Study to demonstrate Person-time exposure to elaborate
 - a. Cumulative Incidence, Incidence density
 - b. Point prevalence,
 - c. Period prevalence
 - d. Rate and proportion.
3. Power Point Presentation of Epidemiological study designs
4. Power Point Presentation of Descriptive studies in Ecological studies
5. Power Point Presentation of Descriptive studies in Analytical studies and Disease surveillance.
6. Power Point Presentation of Descriptive studies in Remerging and emerging diseases.
7. Case Study of various National Health Programmes furthermore, evaluate various programme, their role and their effectiveness.

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SUBJECT: Quality Assurance in Healthcare
CODE: PH807
CATEGORY: General Education Component

Credit	Hours	Marks		
		I	E	T
3	45	15	35	50

Objectives

The objective of this course is to develop knowledge and skills among students about key concepts related to quality assurance in health care and critically appraise the issues related to Quality, Equity and Access to Healthcare in public health programs.

Learning Outcome

At the end of the module the participants will be able to:

- Recognize the inter-relationship between quality, equity and access to healthcare
- Define quality of service and institute mechanisms to ensure it in the program context
- Make use of basic principles of quality assurance in health care
- Interpret the essentials of quality norms / SOPS that have to be followed as different levels of health care institutions of public health
- To explain equity in health care and identify the use of different indices of equity

Unit	Topic	Key Learning
I	Introduction to Quality	Introduction of Quality Assurance, Principles of Quality assurance, Dimensions of Quality, Overview of Quality Access and Equity/Approach
II	TOOLS	Tools of Quality, HEALTH INEQUALITIES IN INDIA: CHALLENGES FOR POLICY -Inter state variations- Urban rural differentials
III	Equity in healthcare	QA triangle & Quality circle, standards of quality, Socio-cultural and gender issues in ensuring equity for health care.
IV	Government program on quality	Qty improvement Prog (NABH, NABL & JCI), Operational guidelines on quality assurance by NHM for programs Kayakalp etc.
V	Accreditation	Quality assurances in public sector hospital; accreditation of Sub centres, PHCs, CHS, DH experiences of World Bank.

Reference Books/ chapters:

- Brown, Lori DiPrete et al., Quality Assurance Methodology Refinement Series: Quality Assurance of Health Care in Developing Countries, Quality Assurance Project
- Gupta, J. P and Sood A.K, "Chapter 2.10: Quality of Care" in Contemporary Public Health: Policy, Planning, Management, Apothecaries Foundation: New Delhi, 2005: 2.57-2.61
- Gupta, J. P and Sood A.K, "Chapter 9.5: Management Science Methods", in Contemporary Public Health: Policy, Planning, Management, Apothecaries Foundation: New Delhi, 2005: 9.49-9.80
- Kaluzny, Arnold D., "Applying Total Quality Management concepts to Public Health Organizations", Public Health Reports, May-June, Vol. 107, No. 2: pp 257-64.
- Kurtz, Richard S., "Quality Assurance and Quality Improvement" in Rober Wallace (ed.) Public Health and Preventive Medicine, McGraw Hill Medical: New York, 2008: 1277- 1280
- Deaton, Angus S., Health, Inequality, and Economic Development(June 2001). NBER Working Paper No. W8318. Available at SSRN: <http://ssrn.com/abstract=272680>
- Dilip, T. R. "Extent of Inequity in Access to Health Care Services in India", in Gangolli, Duggal, Shukla (eds.) Review of Healthcare In India, Centre for Enquiry into Health and Allied Themes, pp. 247-268, 2005

Web Links

- Quality Assurance Project, "Methods & Tools for QA in Healthcare", <http://www.qaproject.org/methods>
- Schuftan, Claudio, "Poverty and Inequity in the Era of Globalization: Our Need to Change and to Re-conceptualize", International Journal for Equity in Health 2003, 2/4:1-7 (<http://www.equityhealthj.com/content/2/1/4>)

SUBJECT: Quality assurance in Healthcare-Lab**CODE: PH807L****CATEGORY: General Education Component**

Credit	Hours	Marks		
		I	E	T
2	60	35	15	50

Objectives

The objective of this course is to develop knowledge and skills among students about key concepts related to quality assurance in health care and critically appraise the issues related to Quality, Equity and Access to Healthcare in public health programs.

Learning Outcome

At the end of the module the participants will be able to:

- Recognize the inter-relationship between quality, equity and access to healthcare
- Define quality of service and institute mechanisms to ensure it in the program context
- Make use of basic principles of quality assurance in health care
- Interpret the essentials of quality norms / SOPS that have to be followed as different levels of health care institutions of public health
- To explain equity in health care and identify the use of different indices of equity

List of Practical

1. PowerPoint Presentation for following
 - i. Principles of Quality assurance,
 - ii. Dimensions of Quality,
 - iii. Overview of Quality Access and Equity,
 - iv. Approach some key concepts of Supply chain management.
2. Case Study which demonstrate the following
 - i. Tools of Quality,
 - ii. Health Inequalities in India,
 - iii. Quality standards in India.
3. Report writing on the following
 - i. Quality improvement Programme (NABH, NABL & JCI)
 - ii. Kayakalp
 - iii. Quality Assurance in Public Sector Hospital



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SUBJECT: Survey Design Methods, Health Communication and Promotions
CODE: PH808
CATEGORY: Skill Education Component

Credit	Hours	Marks		
		I	E	T
2	30	15	35	50

Objectives

The course aims at developing student's knowledge & skills to explain essential concepts, principles and models related to health promotion and communication and demonstrate skills for examining, planning and designing health communication programme related to public health.

Learning Outcomes

On completion of this course, participants will be able to-

- Explain the components of health promotion emblem
- Identify social determinants impacting health promotion
- Describe the theories of behaviour change and their use in health promotion programmes
- Demonstrate use of health promotion and communication models
- Design health communication strategy in different settings
- Illustrate use of media advocacy

Unit	Topic	Key Learning
I	Introduction to survey and survey methodology	Pre survey formative research Conduct of surveys Quality control and assurance in surveys Survey data analysis Ethical issues in surveys Sampling and sample size calculations Tool development.
II	Evaluation of survey	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
III	Theories, Models, and Approaches to health communication	Communication: Process, Types, Barriers to effective communication; Health communication and health promotion: Functions of Health Communication, distinguish health-related behaviour by health-related needs; Behaviour change communication vs. Risk communication; Social and cultural factors affecting the health of populations: Socio-economic and demographic factors Individual, interpersonal and community behaviour; Social Marketing, Community engagement and Participatory Models, Behaviour change communication.
IV	Fundamentals of Health Communication	Introduction to health promotion, Foundations for health promotion, Social determinants and health promotion, Communication strategies for health promotion and Overview of current national health policies, national health program their health promotion strategies
V	strategies for effective health communication	Steps in Planning, Strategy Development and Implementation; Mass communication strategies for health promotion, Entertainment Education & Infotainment; Technology and Health Communications;
VI	Health Promotion and its areas.	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, Setting based approach – Ottawa charter.
VII	Common practices in communication	Developing messages; Effectively communication to the masses; Targeted and target-free communication approaches; Examples and practices in communication
VIII	ICT in health communication	Use of ICT and E-health platforms; Rationale and use of ICT platforms, Discussion of ongoing efforts, understanding implementation strategies, Group exercise using case studies from India and other countries

Text Books

- Sullivan, Tara M, Strachan Molly, Timmons Barbara K; Guide to Monitoring and Evaluating Health Information and Products. USAID, November 2007 @ <http://www.comminit.com/en/node/267608/36>
- Haider, Muhiuddin (Ed). 2005. Global Public Health Communication: Challenges, Perspectives and Strategies. Jones and Bartlett Publishers
- Mays, Nicholas and Catherine Pope, Qualitative research in health care: Assessing quality in quantitative research. British Medical Journal, 2000; 320; 50-52.
- McBride, Rob & John Schostak Qualitative research versus quantitative research (<http://www.enquirylearning.net/ELU/Issues/Research/Res1Ch2.html>)
- Measuring Social Capital, Veronica Nyan Jones, World Bank. 2004.

Web Links

- Making Health Communication Programs Work, U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute @ <http://www.nci.nih.gov/pinkbook>
- Theory at a Glance, A guide for Health Promotion Practice @ <http://www.comminit.com/en/node/180930>
- Guidelines for effective use of data from HIV surveillance systems, UNAIDS/WHO, 2004 @ <http://www.who.int/hiv/strategic/surveillance/hivpubsurveillance/en/index.html>
- Johns Hopkins Bloomberg School of Public Health @ <http://www.jhsph.edu/>
- Boston University School of public Health @ <http://sph.bu.edu/>
- London School of Hygiene and Tropical Medicine @ <http://www.lshtm.ac.uk/>
- TUFTS University @ <http://www.tufts.edu>

SUBJECT: Survey Designing, Communication and Health**Promotions-Lab****CODE: PH808L****CATEGORY: Skill Education Component**

Credit	Hours	Marks		
		I	E	T
2	60	35	15	50

Objectives

The course aims at developing student's knowledge & skills to explain essential concepts, principles and models related to health promotion and communication and demonstrate skills for examining, planning and designing health communication programme related to public health.

Learning Outcomes

Upon completion of this course, participants will be able to-

- Explain the components of health promotion emblem
- Identify social determinants impacting health promotion
- Describe the theories of behaviour change and their use in health promotion programmes
- Demonstrate use of health promotion and communication models
- Design health communication strategy in different settings
- Illustrate use of media advocacy

List of Practical

- Power point presentation of one topic from each unit.

SUBJECT: Healthcare Systems & Urban health**CODE: PH804****CATEGORY: Skill Education Component**

Credit	Hours	Marks		
		I	E	T
2	30	15	35	50

Objectives

The course will build capacities of students to explain basic concepts, importance and scope of healthcare systems, theories and models related to healthcare systems and Urban Health. In addition, the student would be able to identify policy framework and guidelines related to Urban Health.

Learning Outcome: At the end of the module, the participants will be able to:

- Identify the strengths and weaknesses of the system
- Identify areas of deficiency between the needs of the population and the service provision
- Identify the different components of health system and appreciate their role in health care delivery
- Define the nature of health problems in urban situation in the country
- Define the need for health sector reforms and appreciate the context in which reforms were introduced
- Define the different components of health sector reforms with a critical appraisal of them
- Define the meaning of healthcare systems both in scope and typology
- Examine the urban health care delivery system from an administrative perspective
- Address specific problem areas in urban health

Unit	Topic	Key Learning
I	Introduction to Health Systems	Introduction to Health Systems and the building blocks of a Health System, Overview of urbanization and development challenges in India. Urban health problems, indicators, prevention, socio-economic disparities and interventions.
II	Essential components of healthcare delivery	Understanding the individual components: Part 1 Human Resources in Health, Understanding the individual components: Part 2 Service Delivery: Health care at low cost
III	Urban Health	Introduction to Health Sector Reforms, Health problems in special groups – Urban Migrants, Urban poverty and magnitude of under nutrition, Health indicators in urban India, Urbanization and chronic diseases
IV	Urban Health care delivery	First Referral Units, Existing urban health programs and policies in India. Government Health care delivery structure in urban areas
V	NUHM	Review National urban renewal mission, 12 th five year plan and challenges in addressing urban health issues in India Class presentations

Text Books

- Agarwal, Siddharth and Sangar, Kirt, Need for Dedicated Focus on Urban Health within National Rural Health Mission, Indian Journal of Public Health, Vol. 39/3(Sept 2005)
- Akhtar, R., (ed.) Urban Health in the Third World. APH Publishing Corporation New Delhi, 2002.
- Asthana, Sheena (1995). Variations in Poverty and Health between slum settlements: Contradictory findings from Visakhapatnam, India. Social Science & Medicine, 40(2), 177-188.
- Awasthi, Shally and Agarwal, Siddharth; Determinates of childhood Mortality and Morbidity in Urban Slums in India. Indian Padiatrics. Vol.48. No. 12. Dec. 2003
- Bose, Ashish, India's Urban Population, 1991 Census Data, States, Districts, Cities and Towns, Wheeler Publishing, New Delhi, 1994
- Koivusalo, Meri and Eeva Ollila (1997) Making a Healthy World: Agencies, Actors and Policies in International Health. Zed Books, London.

Web Links

- www.nhm.gov.in www.mohfw.gov.in

SUBJECT: Healthcare systems and Urban health-Lab**CODE: PH804L****CATEGORY: Skill Education Component**

Credit	Hours	Marks		
		I	E	T
2	30	15	35	50

Objectives

The course will build capacities of students to explain basic concepts, importance and scope of healthcare systems, theories and models related to healthcare systems and Urban Health. In addition, the student would be able to identify policy framework and guidelines related to Urban Health.

Learning Outcome: At the end of the module, the participants will be able to:

- Identify the strengths and weaknesses of the system
- Identify areas of deficiency between the needs of the population and the service provision
- Identify the different components of health system and appreciate their role in health care delivery
- Define the nature of health problems in urban situation in the country
- Define the need for health sector reforms and appreciate the context in which reforms were introduced
- Define the different components of health sector reforms with a critical appraisal of them
- Define the meaning of healthcare systems both in scope and typology
- Examine the urban health care delivery system from an administrative perspective
- Address specific problem areas in urban health

List of Practical

1. Report writing on the following:
 - i. National urban renewal mission
 - ii. Existing urban health programs and policies in India
 - iii. Human Resources in Health
 - iv. Overview of urbanization and development challenges in India
 - v. Urban health problems.



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SUBJECT: Health-Statistics & Data Analytics (SPSS)**CODE: PH903****CATEGORY: General Education Component**

Credit	Hours	Marks		
		I	E	T
4	60	15	35	50

Objectives

In this course we'll learn how to effectively collect data, describe data, and use data to make inferences and conclusions about real world phenomena. After finishing this subject, one should be able to recognize the importance of data collection and its role in determining scope of inference. She/he can demonstrate a solid understanding of interval estimation and hypothesis testing. Choose and apply appropriate statistical methods for analysing one or two variables. Furthermore, one can use technology to perform descriptive and inferential data analysis for one or two variables and also understand and critique data-based claims.

Learning Outcomes

- Select from, use and interpret results of, descriptive statistical methods effectively.
- Demonstrate an understanding of the central concepts of modern statistical theory and their probabilistic foundation.
- Select from, use, and interpret results of, the principal methods of statistical inference and design.
- Communicate the results of statistical analyses accurately and effectively.
- Make appropriate use of statistical software.
- Read and learn new statistical procedures independently.

Unit	Topic	Key Learning
I	Introduction to Statistics and Data Presentation	History, Scope & Characteristics of Statistics Data Tabulation and Frequency Distribution Data Presentation-Bar charts, Pie Charts, Histograms, BoxPlot, Measures of Central Tendency, Measures of Dispersion, Skewness and Index Numbers
II	Theory of Probability	Concept of Event, Sample space, types of events, Laws of Probability, Probability Distributions –Normal and Standard Normal.
III	Inferential Statistics	Sampling, Fundamental Various types of Sampling and Applications, Point Estimation, Confidence Interval, Testing of hypothesis: Parametric and Non-Parametric (for e.g. z-test, t-test, Chi-squared test, ANNOVA)
IV	Forecasting	Correlation analysis, Best-Fit Line, Time Series Analysis (Introductory part)
V	Regression Analysis	Linear regression, Logistic regression, Poisson regression, Cox proportional hazards regression

Text Books

- Introduction to Biostatistics, Ronald N. Fortthfer and Eun Sun Lee, Publisher: Elsevier.
- Statistical Methodology, S.P. Gupta, Publisher: S. Chand & Co.
- Fundamentals of Statistics, S.C. Gupta. Publisher: S.Chand & Co.

Reference Books

- Biostatistics: A manual of Statistical Methodology for use in Health, Nutrition and Anthropology, K. Visweswara Rao. Publisher: Jaypee Brothers
- Biostatistics: A foundation for analysis in the Health Sciences, W.W. Daniel, Publisher: John Wiley and Sons
- Fundamentals of Mathematical Statistics, S.C. Gupta and V.K. Kapoor, Publisher: S.Chand & Co.
- Statistical Analysis, Kaushal, T.L. Publisher: Kalyani Publishers
- Statistical Methods, Potri, D. Kalyani Publishers.
- Mathematical Statistics, H.C. Saxena, and V.K. Kapoor: S. Chand & Company
- Biostatistics, P.N. Arora and P.K. Malhan, Publisher: Himalaya Publishing House.

Web Links

- <https://www.spss-tutorials.com/basics/>
- <https://www.spss-tutorials.com/spss-data-analysis/>

SUBJECT: Biostatistics & Data Analytics, SPSS-Lab**CODE: PH903L****CATEGORY: General Education Component**

Credit	Hours	Marks		
		I	E	T
2	60	35	15	50

Objectives

In this course we'll learn how to effectively collect data, describe data, and use data to make inferences and conclusions about real world phenomena. After finishing this subject, one should be able to recognize the importance of data collection and its role in determining scope of inference. She/he can demonstrate a solid understanding of interval estimation and hypothesis testing. Choose and apply appropriate statistical methods for analysing one or two variables. Furthermore, one can use technology to perform descriptive and inferential data analysis for one or two variables and also understand and critique data-based claims.

Learning Outcomes

- Select from, use and interpret results of, descriptive statistical methods effectively.
- Demonstrate an understanding of the central concepts of modern statistical theory and their probabilistic foundation.
- Select from, use, and interpret results of, the principal methods of statistical inference and design.
- Communicate the results of statistical analyses accurately and effectively.
- Make appropriate use of statistical software.
- Read and learn new statistical procedures independently.

List of Practical

1. Demonstrate how to entry and edit data in SPSS. Moreover, perform basic calculation in SPSS.
2. Export Excel data to SPSS. In exported file spot missing values, split file and weighted cases.
3. Demonstrate descriptive statistics by calculating frequencies, Descriptive, Cross Tabs, Exploratory and Custom Tables.
4. Visualization of data with help of Chart Builder, Histograms, Box Plots, Bar Charts, Cluster Bar, Stacked Bar, Error bar, Line charts, Pie charts, Editing graphs and Axes.
5. Perform Statistical testing in SPSS to demonstrate Logic, Confidence Intervals, Power of the test, Normal Curve, Normality Test, Homogeneity of variance and Bootstrapping.
6. Perform t-Test to determine One Sample, Independent Sample and Paired Sample.
7. Accomplish Analysis of variance to determine general linear model and best-fit line.
8. Perform Mann Whitney U test on a given set of data to demonstrate Non-Parametric Test.
9. Perform Wilcoxon Signed ranks test on a given set of data to demonstrate Non-Parametric Test.
10. Perform Kruskal Wallis Test on a given set of data to demonstrate Non-Parametric Test.
11. Perform Friedman Test on a given set of data to demonstrate Non-Parametric Test.
12. Perform Chi square -Test to determine Test of Independence, 2x2 Cross tabulation, Layered cross tab, Goodness of fit.
13. Perform Linear Correlation to perform Pearson Correlation, Spearman Correlation, Kendall Tau B, Scatter Plots, Partial correlation.
14. Perform Regression to determine Linear Regression, Logistic Regression.



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SUBJECT: Research Methodology for Healthcare**CODE: PH906****CATEGORY: General Education Component**

Credit	Hours	Marks		
		I	E	T
4	60	15	35	50

Objectives

At the end of this course, the students should be able to understand some basic concepts of research and its methodologies, identify appropriate research topics, select and define appropriate research problem and parameters, prepare a project proposal (to undertake a project), organize and conduct research (advanced project) in a more appropriate manner, write a research report and thesis and assist to write a research proposal.

Learning Outcomes

- Students will be able to use the computer for basic purposes of preparing personnel/business letters, viewing information on Internet, sending mails, using internet banking services etc.
- Understand basic computer operations and ICT applications.
- Understand Network troubleshooting.
- Undertake data entry services

Unit	Topic	Key Learning
I	Introduction to Research and Reporting Practices	Nature and Scope of Research- Conceptual Foundations; Over view of the research process; Introduction to the concepts and procedures of research in detail. Uses of research in public health, Formulation of research problems, writing research questions.
II	Literature Review and Research Proposal	Review of Literature - Literature review and its importance in research; theoretical framework for reviewing the literature; linking what it is proposed to examine and what has already been studied, Writing Research Proposal – Contents of Research Proposal, Measurement Procedures, Structure of the Report, Problems and Limitations Format and contents, Rationale of Research
III	Hypothesis Formulation and Testing	16 Hours Hypothesis Testing - What is a hypothesis? Characteristics of a good hypothesis; Null and alternate hypothesis, level of significance, decision rules, Type 1 & Type 2 errors and one tailed and two tailed tests; Hypothesis testing procedure; Choosing the statistical method; Types of tests; Basic tests on small and large samples; Applications based on Z-test, t-test, Chi-square tests, Applications based on Non-parametric tests, ANOVA (F-Test), Multiple Regression Analysis Unit VI: Report Writing, 5 Hours Research Report Writing - Basic requirements of report writing and report format; meeting the necessary assessment criteria; Citations-In- text citation and referencing, Bibliography; Impact Factor of the Journal
IV	Questionnaire Design and Data Collection Method	Data Collection Methods - Types of data – Primary data versus Secondary data; Methods of data collection- Survey methods {Focus Group Discussions (FGDs), In depth Interview, key informant interviews, Transact walk} Questionnaires, Personal Interview, Telephonic Survey, Electronic Media) Measurement and Scaling - Measurement –Types of data; Criteria for good measurement; Types of Measurement Scales; Attitude and Behavioural Scales
V	Research Design	Research Design: Various approaches and Strategies - Main research approaches; Research Designs based on the nature of the problem/investigation; Techniques of data collection; Concepts of Validity and Reliability; Ethical issues implied in the research design Sampling Methods - Need for Sampling; Sample designing process; Sampling Techniques; Non-probability versus Probability Sampling Techniques

Text Books

- Computers and Beginners by Jain, V.K.;
- Computer Fundamentals by Anita Goel, Pearson.

Reference Books

- Introduction to Information Technology, Leon Tech World by Leon and Leon
- Foundations of Computing, BPB Publication by Sinha, Kr. Pradeep and Preeti Sinha;
- Word Processing and Typing by Sharon Spencer, Heinemann.

Web Links

- <http://cec.nic.in/E-Content/Pages/default.aspx>

SUBJECT: Communicable and Non- communicable disease & Public Health Nutrition

CODE: PH901

CATEGORY: General Education Component

Credit	Hours	Marks		
		I	E	T
4	60	15	35	50

Objectives

To provide students with an understanding of the scope of the public health issues with regard to communicable disease in India and also provide them with the overview with the national health programs that have been designed to address these issues. It will orientation and sufficient training in public health nutrition in an emerging country setting. It provides an integrated program covering life cycle approach to nutrition, epidemiological, public health, social and biological aspects of nutritional science.

Learning Outcomes

- Student should learn chain of transmission of communicable diseases and explain how infectious agents are transmitted by direct and indirect modes, Describe the characteristics of susceptible hosts and the main risk factors for development of communicable diseases.
- To provide students with an understanding of the scope of the public health issues with regard to non-communicable disease in India and also provide them with the overview with the national health programs that have been designed to address these issues.

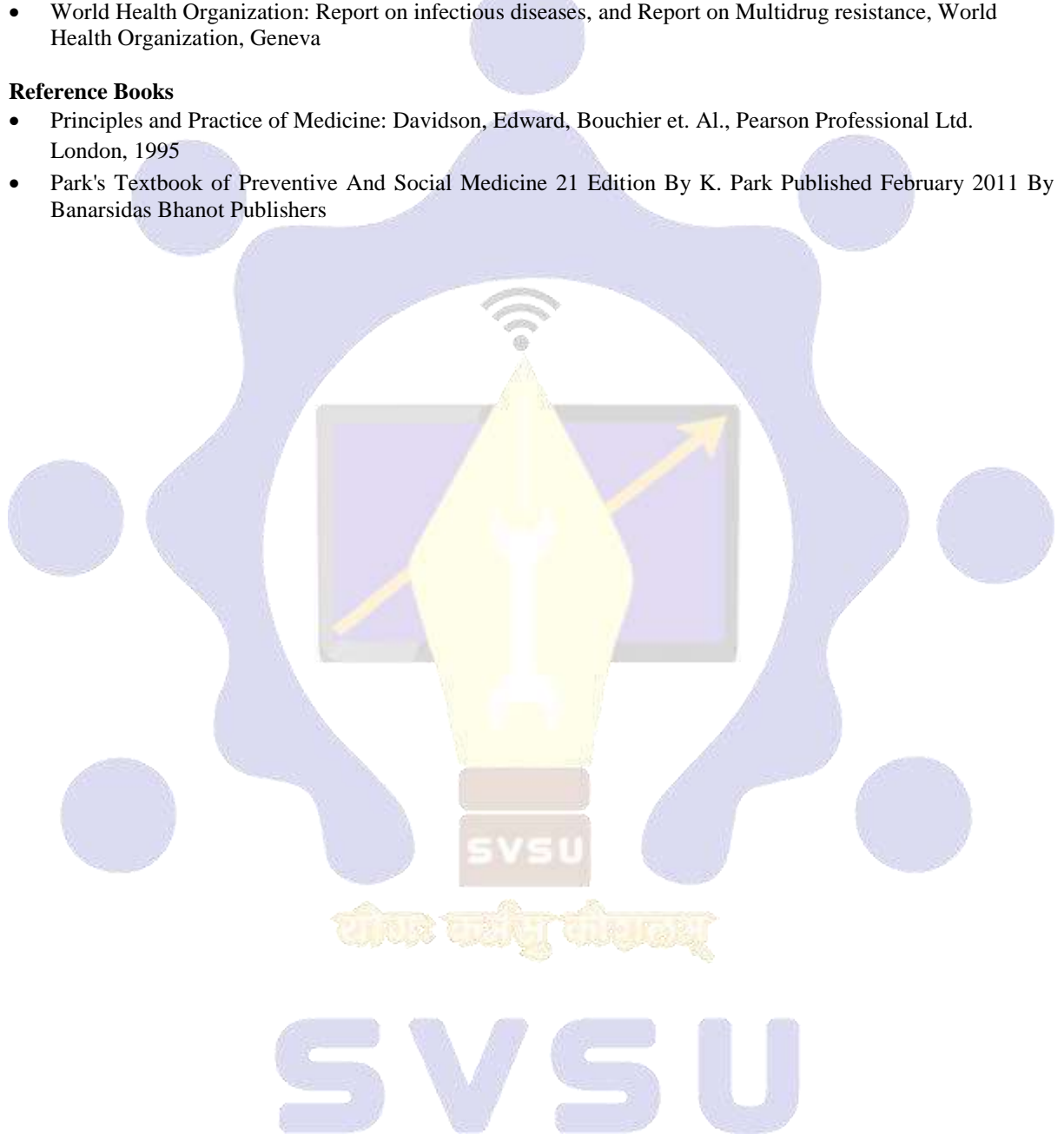
Unit	Topic	Key Learning
I	Introduction	General overview of communicable diseases, impact of communicable diseases on developing countries. Virulence factors, mode of action of toxins, cellular basis of disease Microbial subversion of host defense mechanisms anti-microbial agents, mode of action, genetic basis of drug resistance, multi-drug resistance
II	Communicable Diseases	Common infections respiratory: Tuberculosis, leprosy, ARI's including pneumonia, measles, mumps, rubella Intestinal: Diarrhea, typhoid, polio, hepatitis, worm infestations Contact: STDs and AIDS;
III	Vector Borne	Vector borne: Plague, rabies, malaria and filaria, JE, dengue Disease prevention and control Malnutrition and infection, Health aspects of Disaster management- Definition, types and management
IV	Non-Communicable Diseases Mental Health	Overview and introduction to NCDs Epidemiology of NCDs, risk factors, prevention and management: general strategies, new approaches and policies of NCDs. NCDs programs of WHO and Government of India. Some important NCDs: Following diseases will be covered for Etiology, Pathophysiology, Epidemiology, Prevention and Control. -Asthma, Cancer, Cardiovascular diseases, Chronic, rheumatic diseases, Diabetes, Tobacco use. Concept of Mental Health Burden of Mental diseases: Depression, Schizophrenia, Alzheimer's, Parkinson's, Senile dementia, Suicides Substance Abuse National Mental Health Programme Emerging & re-emerging diseases Role of Voluntary organizations, self-help groups
V	Introduction to Nutrition	Concept of different food groups, Recommended Dietary Allowances
VI	Nutrition in various stages of life	Nutrition in Pregnancy and Lactation, Nutrition in infants , Nutrition in preschool & school children. Nutrition during adolescence, Nutrition during adulthood & Nutrition during old age
VII	Factors affecting nutrition	Relation of nutrition to development in terms of socio economic, industrial and agricultural development and consequences of malnutrition, Assessment of nutritional status, Nutrition Intervention programmes in India

Text Books

- APHA. Control of Communicable and Non- Communicable diseases.
- Park's Textbook of PSM
- Global Handbook On Non-Communicable Diseases And Health Promotion By David V. Mcqueen, Springer Publication.
- Education Of Communicable And Non-Communicable Diseases S.L. Goel Published By Deep & Deep Publications Pvt. Ltd., 2009
- Burden Of Non Communicable Diseases (Paperback)By (Author) M D Richa, By (Author) Gyan Prakash Singh, By (Author) C P Mishra Published By Lap Lambert Academic Publishing. 2012
- World Health Organization: Report on infectious diseases, and Report on Multidrug resistance, World Health Organization, Geneva

Reference Books

- Principles and Practice of Medicine: Davidson, Edward, Bouchier et. Al., Pearson Professional Ltd. London, 1995
- Park's Textbook of Preventive And Social Medicine 21 Edition By K. Park Published February 2011 By Banarsidas Bhanot Publishers



SUBJECT: Communicable and Non- communicable disease & Public Health Nutrition-Lab

CODE: PH90L

CATEGORY: General Education Component

Credit	Hours	Marks		
		I	E	T
2	60	35	15	50

Objectives

To provide students with an understanding of the scope of the public health issues with regard to communicable disease in India and also provide them with the overview with the national health programs that have been designed to address these issues.

Learning Outcomes

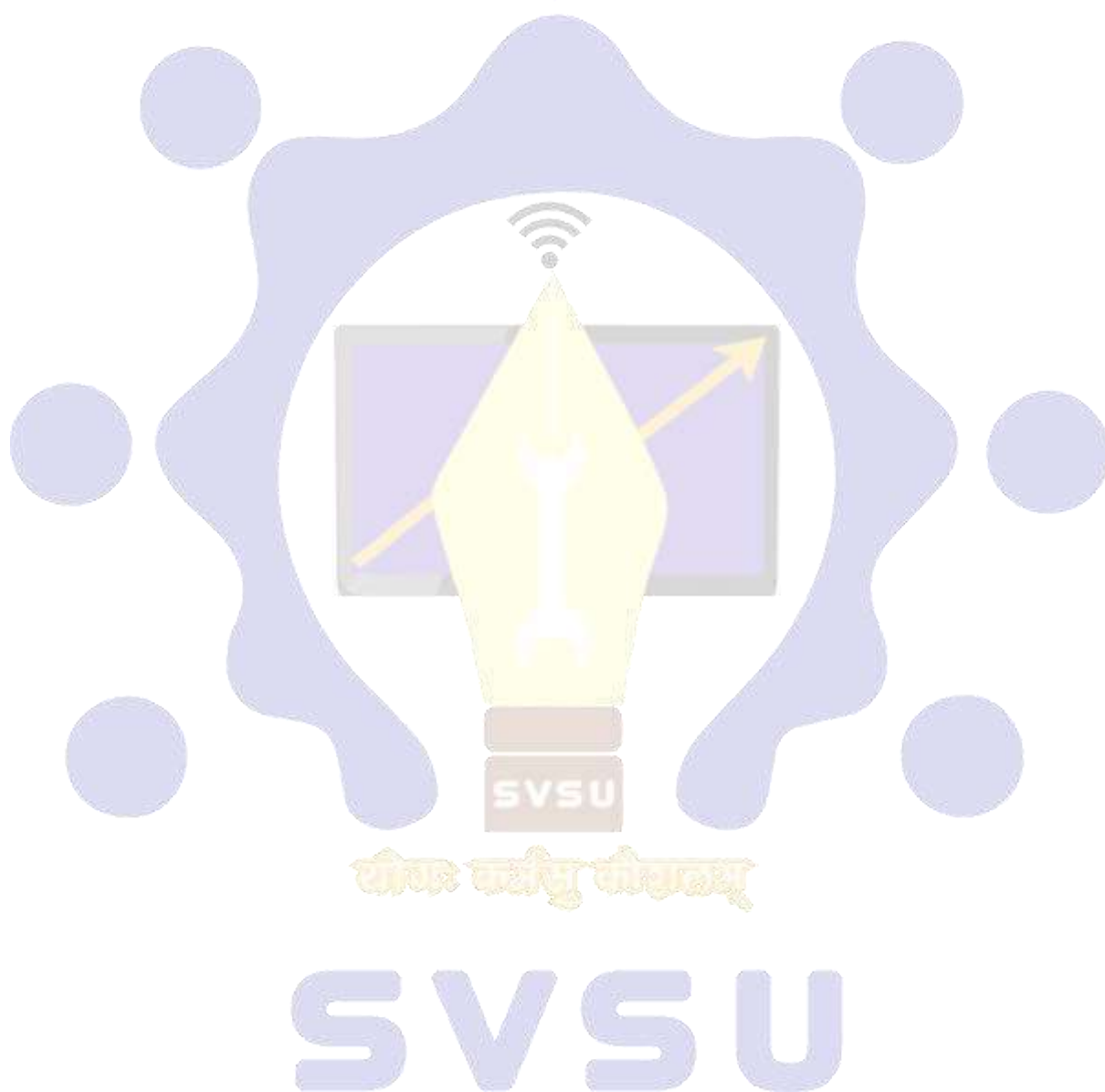
- Student should learn chain of transmission of communicable diseases and explain how infectious agents are transmitted by direct and indirect modes, Describe the characteristics of susceptible hosts and the main risk factors for development of communicable diseases.
- To provide students with an understanding of the scope of the public health issues with regard to non-communicable disease in India and also provide them with the overview with the national health programs that have been designed to address these issues.

List of Practical

1. Identify and selection of rich sources of nutrients (Protein, Iron, Calcium, Vitamin A, Fat, Vitamin C)
2. Study of physical self with reference to assessment of nutritional status:
 - a) Age, height, weight, MUAC and compare with Standard/References
 - b) Observation of clinical signs / symptoms specific to good health Wellbeing
 - c) Record own diet for a day using 24-hour recall
Evaluate qualitatively for adequacy using Food groups and how to improve the same
 - d) Record Food practices including food taboos, fasting and special food preparation for adolescent, pregnant/lactating women.
 - e) Plan and design supplementary/complementary foods for infants and supplementary foods for preschoolers, highlighting their nutrient contribution.
 - f) Plan 1-2 healthy snacks for an adolescent suitable in her/his context
3. Collect five nutrition/health/hygiene messages from print and electronic media which have influenced one self.
4. Plan and prepare any one print/traditional/electronic media/approach you would use to disseminate nutrition/health/hygiene message to the community members.
5. Visit to any one programme/ institution (Govt. /NGO) for children/maternal nutrition and health well-being (ICDS, MDM primary health care.); observation of activities in the programme and report writing.
6. Design any one effective message/slogan for awareness of nutrition,health & hygiene in your community.
7. List five problems faced by self as food consumer in context to food safety. Suggest solutions to overcome the same.
8. a) Collect labels of any FIVE food products (oils, packaged food, processed food, raw foods, Savoury food.) Study and compare them with mandatory label requirements.
 - b) Prepare one food label highlighting the following information:
 - Name & trade of the Food product and the List of Ingredient
 - Food labeling requirements for declaring Nutritional Information
 - Declaration of Veg/Non vegetarian
 - Food labeling requirements for declaring Food Additives
 - Food labeling requirements – Date of Manufacture or Packing and Best before or Use By Date.
 - Food labeling requirements – Declaration of Net Quantity
 - Food labeling requirements – Identification of Lot/Code/Batch number
 - Food labeling requirements – “Instructions for use”
 - Specific Requirements and Manner of Labeling of Infant Milk Substitute and Infant Foods.
 - Food labeling requirements for edible oils & fats, permitted food colors and irradiated food 3.
9. Visit any one food point (Dhaba/ restaurant/ school/ business Centre, etc.) and Observe its measure for safe drinking water and general conditions of hygiene around it. Activities to be suggested by both the

examiners, to be conducted on practical day. Students to make a power point presentation / assignment / practical file / report. . The teacher conducting the final practical examination may ask verbal questions related to the project, done by the student.

10. Identify food adulteration using common quick tests at household level: using visual and chemical methods; (Milk, Oils and Fats, sugar and Confectionery, Food grains, Spices and Condiments (Turmeric, Corainder, Black Pepper Seeds etc.), Miscellaneous (artificial colour on green peas, malachite green in green vegetables, white powder in iodized salt, coloured dried tendrils of maize cob in saffron, clay in coffee powder, exhausted tea in tea leaves etc.)
11. Plan a meal and modify for the physiology condition – Fever, Diarrhea,Constipation, Jaundice, Hypertension, Diabetes. Prepare a dish.
12. Prepare ORS Solution.



SUBJECT: Planning, Supervision, Supply Chain Management and Evaluation of Public Health Program
CODE: PH905
CATEGORY: General Education Component

Credit	Hours	Marks		
		I	E	T
4	60	15	35	50

Objectives

The course introduces students to the concepts and processes of supply chain management, framework for structuring supply chain drivers; network designs, demand forecasting, inventory planning, sourcing decisions and IT enablement of supply chain.

Learning Outcomes

- Enumerate supply chain and explain how supply chain should be managed
- Identify and summarize the key concepts. Understand Network troubleshooting.
- Outline the critical role of relationship management for supply chain performance.
- Develops analytical support for supply chain management and handle master data records for supply chain management.

Unit	Topic	Key Learning
I	Planning	Planning in health, planning at various levels- SC, PHC, Block, District
II	Introduction to SCM	Development of SCM concepts and Definitions – key decision areas – strategic; Supply Chain Management and Key components, External Drivers of Change. Dimensions of Logistics – The Macro perspective and the macro dimension – Logistic system analysis. Manufacturing management – make or buy decision – capacity management – Materials Management – choice of sources – procurement planning.
III	Distribution strategy	Choice of Market – network design – warehouse designed operation and distribution planning – transportation – packaging, Demand forecasting – inventory planning – planning of stocking facilities – warehouse location allocation.
IV	Cold Chain System and Distribution	Manufacturer to beneficiaries, reverse cold chain, VLMS, e-VIN – inventory norms; Channels of Distribution – Customer Service Strategy: Identification of Service needs, cost of services
V	Introduction to M&E	Introduction to M&E. Difference between Monitoring and Evaluation Understanding M&E Plans, Conceptual and Logical frameworks M&E framework – Relation between M&E framework and Logical framework Case studies on M&E
VI	Process of Evaluation	Developing Objectives and indicators for M&E. Quantitative and qualitative indicators - Characteristics of indicators Linking indicators to Plans Types of data sources for Monitoring and Evaluation Collection and quality of data The how to do an evaluation. The Evaluation Question, The Terms of Reference, The aftermath of an evaluation. Reviewing evaluations, Developing an own plan

Text Books

- E-Book: <http://www.textbooksonline.tn.nic.in/Books/11/Std11-Acct-EM.pdf>
- E-Book: <http://www.targetpublications.org/download/11-commerce/std-11-book-keeping-and-accountancy.pdf>
- Book Keeping and Accounting by Aggrawal
- Supply Chain Management: Concepts and Cases. Prentice Hall of India. By Altekar RV. 2006.

Reference Books

- Designing and Managing the Supply Chain, Concepts, Strategies and Case Studies, 3rd Edition, Irwin/McGraw Hill. By Simchi-Levi, David, Kaminsky, Philip, and Simchi-Levi, Edith (2008):
- Essentials of supply chain management (2005), Jaico Publishing House by Dr. R.P. Mohanty and Dr. S.G. Deshmukh:
- Supply Chain management (2008), Pearson Prentice Hall, ISBN: 978-0-13-608040-4. By Chopra, Sunil, P. Meindl, 4th edition:
- Fundamentals of Accounting & Financial Analysis: By Anil Chowdhry (Pearson Education)
- Financial accounting: By Jane Reimers (Pearson Education)
- Accounting Made Easy By Rajesh Agarwal & R Srinivasan (Tata McGraw –Hill)
- Financial Accounting For Management: By Amrith Gupta (Pearson Education)
- Financial Accounting For Management: By Dr. S. N. Maheshwari (Vikas Publishing House)

Web Links

- <https://www.swayamprabha.gov.in/index.php/program/archive/16>
- <https://www.swayamprabha.gov.in/index.php/program/archive/5>
- <https://schools.aglasem.com/15181>
- <https://www.swayamprabha.gov.in/index.php/program/archive/16>
- <https://www.swayamprabha.gov.in/index.php/program/archive/5>

The logo of SVSU (Sri Venkateswara University) is centered on the page. It features a stylized lamp with a glowing yellow light, set against a purple background with a white arrow pointing upwards and to the right. Below the lamp is a brown rectangular box with the letters 'SVSU' in white. Underneath this box is the Sanskrit motto 'सर्वज्ञानं सर्वभूतानां' in yellow. At the bottom of the logo is the acronym 'SVSU' in large, bold, blue letters.

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SUBJECT: Planning, Supervision, Supply Chain Management and Evaluation of Public Health Program-Lab
CODE: PH905L
CATEGORY: General Education Component

Credit	Hours	Marks		
		I	E	T
2	60	35	15	50

Objectives

The course introduces students to the concepts and processes of supply chain management, framework for structuring supply chain drivers; network designs, demand forecasting, inventory planning, sourcing decisions and IT enablement of supply chain.

Learning Outcomes

- Enumerate supply chain and explain how supply chain should be managed.
- Identify and summarize the key concepts. Understand Network troubleshooting.
- Outline the critical role of relationship management for supply chain performance.
- Develops analytical support for supply chain management and handle master data records for supply chain management.

List of Practical

1. PowerPoint Presentation of some key concepts of Supply chain management.
2. Case Study of SCM
3. Report writing on a topic by applying Supply Chain Management.
4. PowerPoint Presentation of some key concepts of Network design.
5. Case Study of Network design.
6. Report writing on a topic with the help of Network design.
7. Solve some Linear models which are useful in Demand forecasting.
8. PowerPoint Presentation of some key concepts for following:
 - i. Manufacturer to beneficiaries
 - j. reverse cold chain,
 - k. VLMS,
 - l. e-VIN – inventory norms;
 - m. Customer Service Strategy: Identification of Service needs, cost of services
9. Case Study of Demand forecasting
10. Report writing on a topic of Public Health in Global scenario.
11. Report writing on a topic of Public Health in National scenario.
12. ABC analysis of the inventory Store
13. VED analysis of the inventory store

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SUBJECT: Demography and Population Sciences
CODE: PH902
CATEGORY: Skill Education Component

Credit	Hours	Marks		
		I	E	T
2	30	15	35	50

Objectives

After completion of the subject students will be able to correctly apply basic demographic concepts when analysing population dynamics. Student will also be able to compare and evaluate the strength and weaknesses of different demographic models. This is also useful in problematize, assess and critically discuss results from demographic research.

Learning Outcomes

- Understand the basics of demography.
- Understand the core social demographic variables, and how these variables influence population growth, composition, and structure
- Use demographic tools in understanding public health issues Knowledge attitude and practices.
- Discuss global demographic regimes and impact on public health.
- Identify appropriate sources of data, perform basic demographic analyses using various techniques and ensure their comparability across populations.

Unit	Topic	Key Learning
I	Introduction	Definitions, Scope and nature, importance of the study, Historical review, difference and similarities between Demography and Population Sciences. Methods of Demographic Data Collection: Primary and Secondary sources of data collection, Procedures, Uses, Strengths and weakness of census, vital statistics, sample survey, dual reporting system – SRS, Data from national health program/disease surveillance, hospital statistics, police records, remand homes etc.
II	Population composition	Sex composition, factors affecting sex composition, Age structure Population pyramids, impact of various demographic processes on the age structure. Comparison – developed and developing countries. Demographic transition Fertility: Determinants: Social economic, political, natural fertility levels and trends in India and world, Measures of fertility, Impact of level of fertility on reproductive health, selected theories of fertility, policies about fertility control.
III	Mortality	Measures of mortality, Causes of Death: epidemiological perspective, Infant & neonatal mortality rates, maternal mortality, disease wise mortality, Trends of Mortality in India, differentials in mortality in developed and developing countries.
IV	Migration and Urbanization	General terms and concepts, internal migration, measures of migration, Differential migration, International migration, Migration in India. Urban challenge of health and environment. Population Growth and Problems: Population growth, reasons for sudden growth in population, problems emerging out of that. Rural-urban distribution of growth pattern, population growth and related problems.
V	Population Policy	Health planning in terms of Family planning, Health services, Vital processes. Policies and programmes influencing demographic processes in the context in India's population. Demographic dividend-Concept, scope and applications.

Text Books

- Principles of population Studies: Asha Bhende and Tara Kanitkar, Himalaya Pub, Houses, Mumbai, 1996
- Population: John Weeks, Wordsworth pub., California, USA, 1994.
- Population Transition In India: S.N.Singh, M.K.Premi, P.S.Bhatia, B.R.Publishing Corporation, Delhi, 1989.
- Population in the context of India's development: P.B. Desai UGC – UNFPA project, Ahmedabad, 1987.

SUBJECT: Demography and Population Sciences-Lab**CODE: PH902L****CATEGORY: Skill Education Component**

Credit	Hours	Marks		
		I	E	T
2	60	35	15	50

Objectives

After completion of the subject students will be able to correctly apply basic demographic concepts when analysing population dynamics. Student will also be able to compare and evaluate the strength and weaknesses of different demographic models. This is also useful in problematize, assess and critically discuss results from demographic research.

Learning Outcomes

- Understand the basics of demography.
- Understand the core social demographic variables, and how these variables influence population growth, composition, and structure
- Use demographic tools in understanding public health issues Knowledge attitude and practices.
- Discuss global demographic regimes and impact on public health.
- Identify appropriate sources of data, perform basic demographic analyses using various techniques and ensure their comparability across populations.

List of Practical

1. To calculate CDR and Age Specific death rate for a given set of data
2. To find Standardized death rate by
 - i. Direct method
 - ii. Indirect method
3. To construct a complete life table
4. To fill in the missing entries in a life table
5. To calculate probabilities of death at pivotal ages and use it construct abridged life table using
 - a. Reed-Merrell Method,
 - b. Greville's Method and
 - c. King's Method
6. To calculate CBR, GFR, SFR, TFR for a given set of data
7. To calculate Crude rate of Natural Increase and Pearle's Vital Index for a given set of data
8. Calculate GRR and NRR for a given set of data and compare them



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SUBJECT: Health Economics & Health Finance**CODE: PH904****CATEGORY: Skill Education Component**

Credit	Hours	Marks		
		I	E	T
2	30	15	35	50

Objectives

The course will provide a framework for developing and analyzing a range of health policy issues. The course begins by introducing an approach for rationally analyzing any public health policy issue. Other models of the policy process are also presented.

Learning Outcomes

- Understand the concepts behind health economic analysis and decision making
- Understand the basic premise under which allocation decisions in the public health field are taken
- Understand the structure and functioning of health care markets
- Critically analyse the advantage and disadvantage of government intervention in health care
- Apply a global perspective to understanding the resource implications and economic efficiency of health care systems.

Unit	Topic	Key Learning
I	Introduction	Key concepts of economics, micro and macroeconomics, Strategizing and prioritizing within scarce resources (decision making) ,Determinants of demand, supply and costs of production
II	Efficiency and Effectiveness	Concepts of efficiency, effectiveness, equity, elasticity of demand, costing, production marginal cost analysis, and opportunity cost, Universal health coverage and role of health care financing
III	Principles and application	Principles and application of economic evaluation in healthcare including Cost Benefit Analysis (CBA) and Cost Effective Analysis (CEA), The application of benefit cost analysis to public health and family planning projects, value of output-loss due to no. of sick days
IV	Economics of health Programmes	Economics of health Programme:- For nutrition, diet and population control, economics of abuse of tobacco and alcohol, Environmental influences of health and its economic impact, economics of breast feeding.
V	Financing of Health Services	A review of per capita private and public expenditure on health services over time and in different parts of the country. An analysis of the sources of (public) finance for health. The need for a general health insurance due to failure of private health insurance markets. The need for a social health insurance for the poor, disabled and the aged. A comparative analysis of alternative payment systems such as health insurance.
VI	Global Expenditure	Global (especially US, UK, Canada, China, Sri-Lanka and Thailand)and Indian Scenario, Stakeholder Analysis

Text Books

- Health Care Financing, Regional Seminar on Health Care Financing, Asian Development Bank, Economic Development Institute and East-West Center, 27- July 3 August 1987
- Health Care Policy: Issues and Trends, Jennie Jacobs Kronenfeld , Publisher: Praege, 2002
- Health Care and Public Policy by David A. Reisman, published by Edward Elgar publishing, UK, 2007.

Reference Books

- Health Planning in India by G. Ramachandrud.
- Health Economics, H P S Rana by Alfa Publications (2009)

SUBJECT: Health Economics & Health Finance-Lab
CODE: PH904L
CATEGORY: Skill Education Component

Credit	Hours	Marks		
		I	E	T
2	60	35	15	50

Objectives

The course will provide a framework for developing and analyzing a range of health policy issues. The course begins by introducing an approach for rationally analyzing any public health policy issue. Other models of the policy process are also presented.

Learning Outcomes

- Understand the concepts behind health economic analysis and decision making
- Understand the basic premise under which allocation decisions in the public health field are taken
- Understand the structure and functioning of health care markets
- Critically analyse the advantage and disadvantage of government intervention in health care
- Apply a global perspective to understanding the resource implications and economic efficiency of health care systems.

List of Practical

1. Graphical representation of data
2. Problems based on measures of central tendency
3. Problems based on measures of dispersion
4. Problems based on combined mean and variance and coefficient of variation
5. Lines of regression, angle between lines and estimated values of variables.
6. Spearman rank correlation with and without ties.
7. Partial and multiple correlations.
8. Show Cost Benefit Analysis (CBA) with given set of data.
9. Demonstrate Cost Effective Analysis (CEA) with given set of data.



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