Fourth Year

Seventh Semester

Course Title	Public Health Research	
Fourth Year	Seventh Semester	Course Code : BPH 407.1-PHR
Credit Hours: 3	Full Mark: 100	Pass Mark: 50

Course Description

This course has been designed to equip the student with the basic research tools and methods in public health sciences. The course aims to impart the basic knowledge on the concepts of public health research. This includes research approach, methods, techniques and process of public health research and its intervention in real fields. The attendants of the course will be able to design and conduct public health research activities in the field to generate relevant information, which can be used for the improvement of the public health program in the country.

Learning Objectives

Upon the successful completion of the course, students will be able to:

- Explain the meaning, purpose and importance of research in public health sciences.
- Define and conceptualize basic terminology used in research
- Describe the various types of research methods applicable in public health sciences.
- Describe the fundamental steps involved in the research process.
- Identify public health problems of Nepal on which research study can be carried out.
- Apply qualitative and qualitative techniques of health research.

Course Contents

Unit 1: Introduction to Research   2 Hours

- Meaning, definition, purpose of research, quality and importance of research in public health
- Identification of research area and title finalization process

Unit 2: Types of research   4 Hours

- Qualitative and quantitative research approach
- Descriptive, Analytical, Experimental research design
- Applied research
    o Formative research
    o Operational research
- Basic research

Unit 3: Research Problem   2 Hours

- Selection criteria of the problem
- Sources of problems
- Examples of problems

Unit 4: Review of the literature   2 Hours
- Process of search, documentation and reference style
- Uses of literature in research

Unit 5: Formulation of research objectives and hypothesis   4 Hours
- Meaning and types of research objectives
- Definition of research hypothesis
- Purpose of research hypothesis
- Types of hypothesis
- Variables [independent and dependent]
- Operational definition.

Unit 6: Research design   8 Hours
- Meaning of research design
- Need for research design
- Features of good research design
- Type of research design
    - Case study
    - Ecological study
    - Cross sectional study
    - Case control and nested
    - Cohort
    - Interventional Research (Pre-Experimental, Quasi-Experimental and True Experimental -RCT/clinical trial
        - Basic Concepts on Clinical Trials: Cross over, parallel design, community trials and blinding
    - Time Series Design

Unit 7: Sampling design and procedures   4 Hours
- Census
- Sample
- Selection of sampling design
- Sampling frame
- Reference, target and study population
- Determination of sample size
- Sampling techniques

Unit 8: Instrumentation   6 Hours

- Measurement of statistical data
- Estimation and testing of Hypothesis
- Qualitative and quantitative approach of instrumentation
  - FGD, IDI, KII, PRA/PLA, Observation
  - Questionnaire schedule
- Pre- testing and its importance
- Reliability and validity
- Pilot study
- Data collection process
  - Primary methods of data collection: Interview, mailed questionnaire, observation, and objective test.
  - Secondary methods of data collection: Data from office records of institutions, journals, bulletins.

Unit 9: Data Processing   2 Hours

- Quantitative approach
  - Coding and decoding, editing and feeding
  - Data cleaning
  - Preparation of master tables\Dummy table
- Qualitative approach
  - Sorting, Narrative, triangulation
  - Content analysis, meta analysis

Unit 10: Analysis of data and findings   6 Hours

- Selection on appropriate statistical techniques
- Descriptive and analytical statistical method e.g. means, standard deviation, probability, and normal distribution, parametric, and non- parametric, Inference, and correlation and regression analysis (only review).
- Presentation of data
- Conclusion, summary and recommendations

Unit 11: Preparation of Report   4 Hours

- Concept, Meaning, objective, importance
- Layout of research report
- Difference between Research Report and Research Paper
- Scientific report writing, Manuscript and abstract
- Element/body of report
- Qualities of good report
- Process of report

Unit 12: Research Ethics and publication   4 Hours

- Basic Concepts on Research Ethics and its Principles
- Milestones of Research Ethics in Nepal, and National Ethical Guidelines of Health Research
- Concept of IRB
- Function of ERB of NHRC
- Concept and importance of publication in professional career
- Introduction and types of journal, list the index journal publish in Nepal

Teaching learning methods

Multiple methods will be used to acquire the above mentioned specific objectives

- Didactic lecture: mainly on the basic concepts, principles and theories
- Presentations and seminars: mainly on the events and issues of debate and diverse opinions
- Self learning: mainly on the issues, where further explanations are desired and materials are easily available for reading.

Evaluation

Internal assessment in different forms 20%

Final examination   80%

Recommended Books

1. Health Research methodology, WHO
2. Tandan M. and Thapa J., A Text book of Public Health Research Methodology.
3. Fisher, A. Laring, J and Stokle, J. "Hand book for family planning Operations Research Design" Population Council, 1991.
4. Kothari CK "Research Methodology", Willey Eastern Limited [Fourth reprint 1989.]
5. Gyawali K and RegmiB, Health research methodology, 2012
6. Kleinbam DG, Kupper LL, Morgenstem "Epidemiologic Research- Principles and quantitative Methods ". Van Nostrand Reinhold, New York, 1982.
7. Moser C and Kalthon G "Survey Methods in social investigational" EL. BS. 1979.
8. Pradhan. HB. "A Textbook of Health" Educational Resources for Health [Second ed] Kathmandu. 1996.
9. Stpehen I. and Michael WB. Hand book in research and evaluation" Edits Publishers. San publishers, San. Diego. California seventh print 1976.

Course Title	Urban Health, Public Health Engineering and Disaster Management	
Fourth Year	Seventh Semester	Course code: BPH 407.2-UHPHEDM
Credit Hours: 3	Full Mark: 100	Pass Mark: 50

Course Description

An education aspect of Urban Health, Public Health Engineering and Disaster Management program is indispensable responsibility of health Professional specifically of development aspects of health. The graduates need to have a clear concept of urban planning, environment, its engineering system and disaster and emergency management.

Learning Objectives

Upon the successful completion of the course, students will be able to:

- Knowing about urban health, healthy city and component of urban health
- Understand the science and engineering aspects of landfill, biological treatment and thermal treatment options;
- Able to know about the meaning of disaster, its management and health effects
- Student are able to management in public health perspective of construction of city, its healthy behaviour and mitigation strategy of disaster and response in emergency

Course content

Unit 1: Urban health   **16 Hours**

- **Urbanization**
  - Concept, definition and scope of urban environment
  - Process of urbanization
  - Global urbanization: trends, patterns, determinants, indicators of good urban environment and impacts
  - Urbanization in context of Nepal, interexchange of urban resources
  - The urban environment and health in developing countries and in Nepal
  - Urban social environment and characteristic of socio health environment
  - Green revolution in urban context and its importance

- **Measures of Urbanization**
  - Terminologies of urbanization
  - Measures of urbanization
    - Percentages of population in urban areas
    - Ratio of urban and rural population
    - Size of locality of residence of the median inhabitant
    - Mean city population size
    - Tempo of urbanization

- **Factors affecting Urbanization**

- **Urban health issues**
  - Determinants and burden of urban ill
  - Urbanization and the epidemiology of infectious diseases
  - Urban social disease (violence, different types of crime, prostitution, drug abuse, psychological disorder, RTA)
  - Urban primary health care and health system in Nepal
    - Concept, objective, activities and significance urban health clinic
  - Disease management system in municipality
  - Concept of mobile toilet, scope and importance
  - Municipalitization and urban health : tendencies in the mega city, lessons learned, and challenges

Unit 2: Public health engineering   **16 Hours**
- **Introduction**
  - Concept, scope, use of public health engineering, its application Nepalese engineering construction and development
  - Public health importance and its critiques of intervention in engineering system
  - Major public health engineering construction in Nepal
  - Merits and demerits of public health point view of engineering,

- **Management engineering of sanitary disposal system**
  - Concept, definition, public health importance, types of toilet (classical and modern) and its description, toilet construction system in mass people displacement, importance of biogas engineering, its type and promotion of public health in rural setting

- **Water Engineering**
  - Network design and distribution of water supply system, treatment operation and management, issues of social equity in water supply in mega city of Nepal, Public health aspects of water engineering of water and sanitation division.

- **Public health aspects of house engineering**
  - Criteria of hygienic house, ventilation engineering, code of house building,
  - Merits of house engineering and its significance in disaster

- **Waste management engineering**
  - The current generation rates for major waste streams, collection and potential recycling options.
  - Solid waste engineering options

- Landfill – concept, site selection criteria, design and operation
- Biological treatment - composting and anaerobic digestion, design and operation
- Thermal treatment - combustion, pyrolysis and gasification, design and operation
- Emission control - flue gas cleaning systems, odour control, leachate management and bioaerosol control

Unit 3: Disasters Management   16 Hours

- **Introduction;**
  - Meaning of disaster and disaster management
  - Distinguishing between an public health in emergency and a disaster situation
  - Types of natural and non-natural disasters
  - Impacts and Implications of disasters on your region and environment

- **Disaster Management Cycle**
  - **Mitigation,**
    - Disaster Mitigation
    - Mitigation strategies
    - Hazard identification and vulnerability analysis
    - Disaster and Development
    - The impact of disasters on development programmes
    - Vulnerabilities caused by development

  - **Preparedness,**
    - Disaster Preparedness and planning, Element of preparedness, disaster forecasting
    - Overview of Disaster Risk Reduction (DRR) process

  - **Response and recovery**
    - Disaster Response
    - Aims of disaster response
    - Disaster Response Activities in Nepalese context
    - Modern and traditional responses to disasters
    - Disaster Recovery and plan
    - Critiques on Disasters as opportunities for development initiatives
    - Disaster management mechanism of Nepal from peripheral to central, Overview activities of disaster management activities of different organization of Nepal

- **Disaster Associated Health Issues – Emergency Health Services and Diseases**
  - Introduction
  - Emergency Health Services in Disasters

- Infrastructure and procedures in accessing emergency situations
- Common Communicable diseases in disaster situations
- Risk factors contributing to the spread of communicable diseases and outbreaks
- Preventing and reducing outbreaks of communicable disease in emergency/disaster settings
- Rapid Assessment
- Importance Health Education in risk reduction of disaster

Teaching learning methods

Teaching learning methods of this course include didactic lectures, group work and presentations review papers discussion in class room setting.

Evaluation

Internal assessment in different forms 20%

Final examination   80%

References

1. K. Park, Preventive and social medicine, latest edition
2. Disaster management guideline, MOHP
3. Disaster management guideline, EDCD, MOHP
4. Disaster operational and response manual
5. Guidance Note 2011 for Preparing Disaster Preparedness & Response Plan
6. Building development code, MPPC
7. Urban health policy, MOHP
8. Waste management committee, MOLD
9. Plan, policy, and guideline of municipality
10. Public health guide in emergencies
11. Nepal Health Sector Programme Implementation Plan II (NHSP IP2) 2010-2015
12. Annual DDR report
13. Waste management guideline, WHO

Course Title	Logistic Management and Software Application	
Fourth Year	Seventh Semester	Course code: BPH 407.3-LMSA
Credit Hours: 3	Full Mark: 100	Pass Mark: 50

Course Description

This course provides students with an overview of the ever-changing profession of procurement and supply chain management. It will also address the major trends and influences in the discipline of procurement and supply chain management. This course covers the entire procurement and supply chain process. This course provides the fundamental principles and practices of government procurement. The course covers all aspects of logistics management, from theories to strategies and operational guidelines.

Learning objectives

Upon the successful completion of the course, students will be able to:

- Understanding of procurement and supply chain management
- Define and relate the terminologies in procurement and supply chain management
- Link procurement and supply chain functions to other organizational functions
- Explain and link the stages in the procurement and supply chain processes
- Discuss the contract management process
- Identify the various procurement records
- Discuss the various approaches to sourcing and management of suppliers
- Describe the procurement risk management processes
- Use the different kinds of software in computer

Course Contents

Unit 1: Introduction to logistics management   **4 Hours**
- Evolution of logistics management
- Define logistics and logistic management
- Importance of logistics
- Logistics management cycle and functions
- Logistic Management Division
  - Introduction, objective, strategies of Logistic Management Division
  - Indicators of LM
  - Constraints and issues of LM
  - Concept, objectives and application of Logistics management information system (LMIS)

Unit 2: Procurement, Inventory and Supply chain Management   6 Hours

- **Procurement**
  - Concept, definition, objectives and types of procurement.
  - Principle of procurement
  - The scope of procurement and supply chain management
  - Definition and importance of Quotation

- **Introduction to public procurement**
  - The scope and nature of public sector
  - Meaning of public procurement
  - Differences between public and private procurement
  - The goals of government and procurement objectives

- **Procurement and process**

  - Procurement planning
  - Solicitation
  - Evaluation,
  - Contracting and contract management

- **Public procurement methods**
  - Selection of procurement method
  - Open and restricted methods
  - RFQ/RFP
  - Micro procurement
  - Direct Procurement, community purchase

Unit 3: Inventory Management Supply Chains   6 Hours

- **Inventory Management Supply Chains**
  - Definition of Inventory, Vendor, or supplier
  - Principles of inventory management
  - Inventory flows and supply chains
  - Planning and forecasting

- **Warehousing and inventory management**
  - Principles of stores and warehouse management
  - Store management process- ASL, EOP, LIFO and FIFO

- **Tender or Bidding**
  - Concept, types and process of budding
  - Current process of bidding, constraints, and issues

o New approach of bidding: E-bidding (logistic)
  - Importance, merits and demerits of e-procurement
  - Types and forms of e-procurement
- **Overview of contract law**

Unit 4: Documentation   2 Hours
- Definition, types and importance of documentation and record in LM
- Registration and reference number and their importance
- Dispatching process and its importance
- Principles of producing documentation

Unit 5: Computer Software Application   24 Hours
- Introduction about software and its application in public health
- Various kinds of Statistical Software used in Computer
- Use of SPSS in Computer
- Use of Epi-data in Computer
- Use of end note
- Use of different referencing style

Unit 6: Informatics   6 Hours
- Understanding the health informatics, definition, scope, uses and importance
- Bioinformatics- Introduction, types and application
- Medical terminologies, nomenclatures, coding and classification system
- Telemedicine: introduction, scope, uses, application, importance to provide health service in rural Nepal, case study of telemedicine in Nepal and its merits and demerits, role of telemedicine in PHC
- GIS and GPS- Introduction, application on public health and difference between them, Uses of them in disaster management

Teaching learning methods
Teaching learning methods of this course include didactic lectures, group work and presentations review papers discussion in class room setting.

Evaluation
Internal assessment in different forms 20%
Final examination   80%

References
1. DoHS. Annual report. Depart of Health services, recent edition.
2. SPSS training manual
3. www.lmd.gov.np

Course Title	Public Health Ethics, Social Health and Professionalism	
Fourth Year	Seventh Semester	Course code: BPH 407.4-PHESHP
Credit Hours: 3	Full Mark: 100	Pass Mark: 50

Course description

This subject is keeping aim to make able about social health, its component, important in society and health to the students. Attention will be given to current health problems and issue dealing with consumerism. The course will involve student establishing concepts of self-protection in sales promotion of health products and services. All the social conflict could be negotiate though the justice and its value to make social justice in community. In order to do this well, healthcare professionals need good technical as well as proper ethical education: ethical education to enable them to deal with the problems of their patients and of their community more effectively.

Learning Objectives

Upon the successful completion of the course, students will be able to:
- Explain the meaning purpose and importance of ethics in public health sciences.
- Define and conceptualize basic principle of ethics
- Intervention of ethical behaviour in professional development
- Describe the fundamental concept involved in the public health service.
- Develop public health professionalism in individual for development of public health
- Identify the major factors influencing health care.
- Identify resources for protection of the consumer.
- Discuss and make decisions regarding the utilization of health care services.
- They know about social justice and its important to maintain health society
- They could know about the component of health justice and its relation with consumer health

Course Contents

Unit 1: Public Health Ethics 13 Hours
- **Introduction**
  o Concept of ethics, importance of ethics in public health professional, difference between ethics, rules, regulation and law, brief overview of history of ethics of public health

- **Considerations of ethics and brief terminology**
  o Defining the Good, Virtue Ethics, Situation Ethics, Care Ethics
  o Moral worth, types of moral worth
  o Paternalism, Plagiarism, Patent right, Autonomy, Competence and Decisional Capacity, Truth-Telling , Pluralism and Healthcare Professionals

- **Patients, Society and Healthcare Professionals ethics**
  - Health care professionals as their patients' friend
  - Equalities in cultural and linguistic
  - Confidentiality
  - Conflicts of interest
  - Consent
  - Health care professionals as citizens
  - Health professionals and their lives

- **Community ethics**
  - Ethical justice and rights
  - Ethical role of the community
  - Communication ethics, respect ethics, language ethics, cultural ethics
  - Code of conduct of public health professional
  - Individual liberty and community benefit,
  - Use of evidence
  - The ethics of resource allocation in community

Unit 2: Professional Development   16 Hours
- **Concept, definition, function, and relation with professional development**
  - Listening Skills
  - Time Management
  - Personal Productivity
  - Making Effective Decisions
  - Conducting Effective Meetings
  - Leadership Style and role model
  - Inter Personal Relationship (IPR)
  - Resolving Conflict
  - Importance, way of Response and Feedback
  - Organizational Image
  - Customer Satisfaction
  - Aligning Technology with Organizational Strategy
  - Communication and interpersonal development
  - Media mobilization and utilization
  - Attachment, registration with professional organization (NHPC, NePHA other professional organization)

- **Core function and competencies of public health in relation to professional development**

Unit 2: Consumer health   12 Hours

- o Meaning of consumer, concept of consumer health and consumer right
- o Element of consumer health and right
- o Major consumer health issues in Nepal

- **Consumer Health Issues**
  - o **Service related issues**
    - Misleading information
    - Issues in healthy products
    - Issues in accessible of health services
    - Problems with costs and access

  - o **Health related issues**
    - Disease related issues
    - Hygiene and sanitation
    - Vulnerability and hazards
    - Quality service and product and their effect on public health

  - o **Consumer behaviour issues**
    - Need for consumer protection
    - Intelligent consumer behaviour
    - Unhealthy behaviour
    - Psychological   manipulation

- **Consumer protection in Nepal**
  - o Quality control of health service, quality of drug, misleading impact on consumer
  - o Overview of consumer protection law of Nepal and its implication
  - o Quality assurance department of DoHS
  - o Other government agency for controlling mechanism of quality goods (Roles and responsibility of Department of commerce, Department of quality assurance and weight measurement)
  - o Industry   Self-Regulation

Unit 3: Social health justice   7 Hours

- **Introduction**
  - o Concept, definition, scope and, its important in health service delivery, example of injustice in health care delivery
  - o Health law: Nature, implementation strategies and challenges
  - o Difference between law, fundamental right, human right and justice
  - o Critiques of Justice is one of the mechanism of social harmony and decrease conflict

- o Component of justice
  - Equity, Equality, Fairness, Inclusion, Opportunity, Rights
  - Moral agency, action
  - Equal treatment as natural law
  - Removing barriers
  - Impartiality

Teaching learning methods

Teaching learning methods of this course include didactic lectures, group work and presentations review papers discussion in class room setting.

Evaluation

Internal assessment in different forms 20%

Final examination   80%

Reference

1. Erich Textbook of Healthcare Ethics; University of California, Davis, School of Medicine, Sacramento, California
2. Macleod J. "Davidson's principles and practice of medicine". ELBS.
3. Regmi B, Public health ethics, social health and professionalism
4. WHO guideline of medical ethics
5. Code conduct of NHPC
6. Ethical guideline, Nepal health research council

Course Title	Practical Skill Development (Public Health Research)	
Fourth Year	Seventh Semester	Course code PSD 407.1-PHR
Credit Hour: 1	Full Mark: 50	Pass Mark: 30

Course description

Students will observe the lab and field based demonstration, collection of information, collation and maintains all these things in log or practical book under the direct supervision of concern teacher and public health department. Students will acquire practical knowledge and skill on public health research.

Details of PSD

Subject	Practical Hour	Content	Log or practical book
Public health research	32	- Three research topic with objectives and rationale presentation - Selection of research topic for successive semester for preparation of research report. - Student must started the proposal development activities and submission of proposal on selected research title	Maintain
Total practical : 32 Hours			

Maintain process of log or practical book

- Write practical with specific detail, description, process and drawing manually
- All practical should be signed by respective teacher and head of the department/Coordinator
- All student must bring practical log book/ report in final examination
- Final examination will be based on practical

Research Responsibility

- Student must started the proposal development activities and submission of draft proposal and presentation
- College must recruit the individual guide to individual student of research purpose
- Student must follow the guideline given in annex

Course Title	Term Paper Preparation (Urban Health, Public Health Engineering and Disaster Management)	
Fourth Year	**Seventh Semester**	**Course code: TPP 407.2-UHPHEDM**
Credit Hour: 1	**Full Mark: 50**	**Pass Mark: 30**

Course description

Students will observe the lab and field based demonstration, collection of information, collation and maintains all these things in log or practical book under the direct supervision of concern teacher and public health department. Students will acquire practical knowledge and skill on urban health, public health engineering and disaster management.

		Details of TPP	
Subject	**Practical Hour**	**Content**	**Log or practical book**
Urban health, public health engineering and disaster management, and ethics	32	- Engineering layout/sketch of public health engineering (land fill site, preparation guideline and healthy house and city development frame) - Demonstration of modern types of toilet - Development of short report on engineering, health home, sanitation aspects, disaster aspects of security concern of house, implementation of code of house development of your own house or rent house where you are living now, presentation and submission on title of my house and my security - Term paper preparation and presentation on respective health related issues in nationally and internationally - Preparation and submission of report to department	Maintain
Total practical : 32 Hours			

Maintain process of log or practical book

- Write practical with specific detail, description, process and drawing manually
- All practical should be signed by respective teacher and head of the department/Coordinator
- All student must bring practical log book/ report in final examination
- Final examination will be based on practical

Course Title	Term Paper Preparation (Public Health Ethics, Social Health and Professionalism)	
Fourth Year	Seventh Semester	Course code TPP 407.3-PHESHP
Credit Hour: 1	Full Mark: 50	Pass Mark: 30

Course description

Students will observe the lab and field based demonstration, collection of information, collation and maintains all these things in log or practical book under the direct supervision of concern teacher and public health department. Students will acquire practical knowledge and skill on public health ethics, social health and professionalism.

Details of TPP			
Subject	Practical Hour	Content	Log or practical book
Public Health Ethics and Professional Development	20	- One month professional development time (process describe below) - Preparation of report, submission to department and Report dissemination process	Maintain
Consumer and social health justice	12	- One day concurrent mini sample study about consumer health from market (food, right of information) around the college or home - Preparation of report and submission to department - Group term paper preparation and presentation on national health policy and plan system, climate change and health	Maintain
Total practical : 32 Hours			

Maintain process of log or practical book

- Write practical with specific detail, description, process and drawing manually
- All practical should be signed by respective teacher and head of the department/Coordinator
- All student must bring practical log book/ report in final examination
- Final examination will be based on practical

Process of one month professional development time

1. The time of professional development month time announced by public health department
2. One log book including the below indicator (could add other indicator as per need) will be provided individually by department and all the student need to update.
3. The evaluation will be triangulate
   - Log report submitted by student him/her self
   - Log report submitted by classmate him/her self
   - Record keeping by department them selves
4. All students must be participated in this process. Following indicator will be evaluated as a part of professional development
   - Time management (On time class attendance, and signature, full time participation)
   - Communication (politeness, respectful and appreciative in a way)
   - Documentation (completion of home assignment, report in exact time)
   - Writing (At least one professional activities need to be completed and submission of evidence report to department (Article publication, research report publication in any journal, national, regional, district news paper, in any FM, interview or in wall news paper of respective college)
   - Discipline (complete wearing of college dress, record on case of battery, quarrels, conflict with friends and other)
   - Participate in all the evidence organized by college
5. The evaluation process was separately conducted by department and one of your friends in the class room but there is completely enclosed the information of evaluator
6. The final report (include log book provided earlier also) will be submitted separately and department will disseminate the professional development ranking of each student.

Process and area of mini sample study

- Instrument development
- Execution field
- Retailer shop, hotel and restaurant, sweet house, clinic, hospital, public and private institution, departmental stores, other service provider place by using concern questionnaire, checklist related consumer health, consumer right, service accessibility
- Report preparation and submission

Course Title	**Practical Skill Development**	
	(Comprehensive Public Health Management Field Practice)	
Fourth Year	**Seventh Semester**	**Course code: PSD 407.4-CPHMFP**
Credit Hours: 5	**Full Mark: 100**	**Pass Mark: 60**

Course Description

The purpose of this course is to provide the students an opportunity to develop skills, which will make them competent public health professional with the ability to identity health problems and needs in the community. The course also aims to develop the basic skills in the students to assess resources potentiality and constraints, priorities the health problems and set strategies for solving them develop, or assists in developing suitable options and action plans for addressing the priority health problems in district and carry out supervision, monitoring and evaluation for developing actions plans for feasible and effective solutions to problems identified and detected through monitoring and evaluation.

Learning Objectives

Upon the successful completion of the course, students will be able to:

- Explore health problems in the districts, including determinants of the problems to prepare a district health profile.
- Assess existing or potential resources for addressing health problems, as well as constraints, which may hinder successful application of solutions.
- Prioritize health needs of the district and generate appropriate and feasible strategies for health, bearing in mind overall goals of Health and Basic Minimum Needs, available resources and feasibility of various solutions.
- Co- ordinate health and non- health sector activities in order to accomplish health service goal.
- Observe organizational management skills including enterprising and leadership abilities in the following areas of: Inter and intra sector co- ordination.
- Direction, training and motivation of subordinate or health personnel.
- Supervision and monitoring if different health personnel and work- activities towards achieving objectives.
- Development of a sense of tem sprit and taking collective responsibility and participation in fulfilling goals and objectives of the District Health Office.
- Observation and understanding of appropriate recording and reporting system –assist establishing a workable to way referral sys from the grass- roots level through health posts of district hospital and back down.
- View himself\ herself as qualified public health Professional able to act as an adviser and counselor in public health management, public health services, and health services research.

Course Contents

Unit 1: Program Activities   6 Hours
- Rationale for field program activities
- Orientation to the district chosen for fieldwork and logistics.
- Orientation to the field activities.
- Over view and networking of district level organizations and their health related activities (DPHO, DDC, Water Supply, Agriculture, Education, Red Cross, CDO, FPAN, other NGO, INGO, hospital and other health related organizations of the district) which are directly and indirectly related to health and related issues of the district.

Unit 2: Preparation of Management Profile of District Health Problem   8 Hours
- Major health problems of the district.
- Health planning Process and programmes/projects in district level
- Health services organization structure.
- Staffing patterns
- Coordination with other related organizations (line agencies, NGOs, INGOs).
- Supervision and monitoring system.
- Budgeting
- Health management instruction system.
- Logistics system
- Recording and reporting system.

Unit 3: Critical Appraisal of Health Management Profile   14 Hours
- Critically analyze the status, strength and weaknesses of each of the management components mentioned above using POSDCORB format.
- Watch closely and deeply observe oral manger's work activities in the organizations towards goal achievement.
- Prepare suggestions for alternative strategy or re-strengthening the management component of overcoming the weakness for better management.
- Activities
  o Epidemiological study on public health problem in a district
  o Five year plan of public health issues based on findings
  o Organize a seminar to present a health management profile of organization in district/Collage

Unit 4: Mini Action Project (MAP)   4 Hours
- Definition, Objective, Element and characteristics of MAP
- Process of MAP
- Evaluation of MAP

Practical Aspects   **128 Hours**

This is 30 days residential field stay based on different district headquarter with directly attachment with District Public health Office/District Health Office. Combined mixed group formation around ten students in each group from discussion and ready for field practice. During this stay students need to develop one comprehensive district profile incorporating all information taught in theoretical aspects. This residential based practical could help to gain the evidence based process of district health management and documentation process. Student need to analyze the health situation and selecting one problem to conduct the mini action project. At last they need to develop one combined black binding (Hard copy) report in three copies. The report content is attached in annex. All the college need to follow this format for unification and uniformities.

Unit 5: Process of conducting mini action project

- Apply the knowledge and skills learned in various disciplines of health sciences (epidemiology, bio-statistics, health education, nutrition, school health, health & environment, family planning, MCH, etc) to develop community based individual micro-health project.
- Selecting one problem which student could manage on their local resource on innovative way
- Develop a mini action project with objectives formulated on the prioritized basis of problem and health needs.
- Implement the mini action project developed as above.
- Evaluate mini action project developed as above.
- Evaluation mini action project and give suggestion and recommendations.

Unit 6: Preparation and submission of field study reports

- Prepare baseline demographic and health profile of the district acquired from secondary data on the basis of which write additional specific papers on the following.
- A comprehensive plan to improve the effectiveness of specific aspect of the district health system.
- Student need to presentation by process
    - Preliminary findings presentation in district
    - Conduct mini action project, epidemiological study, prepare five year plan in district
    - Final presentation in district
    - College presentation in college premise

Reporting format as per Annex directives

Teaching learning methods

Teaching learning methods of this course include didactic lectures, group work, field and presentations review papers discussion in class room setting and concern district.

References

1. DoHS. Recent Annual report. Department of Health Services.

Fourth Year

Eighth Semester

Course Title	National Health Policy and Plan	
Fourth Year	Eighth Semester	Paper : BPH 408.1-NHPP
Credit Hours: 3	Full Mark: 100	Pass Mark: 50

Course Description

This course provides an opportunity to the students to get acquainted with the history of national health policy and plan in Nepal. The course helps the students to better conceptualize the national health policy and how the policy has back enacted at the central, district and grass root levels.

Learning objectives

Upon the successful completion of the course, students will be able to:

- Learn history and the process of development of health plans and policies in Nepal.
- Understand the history and the process of development of health plans and policies in Nepal.
- Understand brief information about the existing policies and plans
- Develop critical understanding about the strengths and limitations of the policies and plans
- Impart knowledge about the changing political context (nature of state) in the country and the priority shifting of health policies and plans

Course Contents

Unit 1: History of Development of health plans   **8 Hours**

- Pre-planning period
- Five year plan periods
- First Long Term Health Plan (1975-1990)

Unit 2: Current National Health Policy   **4 Hours**

- Concept of health policy
- Context of development of health policy
- Overview on national health policy 1991
- Areas addressed in the policy
- Strengths and limitations

Unit 3: Health policies and Plans (Introduction, objectives, strategy and critical analysis)

         36 Hours

1. Second Long Term Health Plan (1997-2017)
2. National Safe Motherhood Policy 1998

3. Millennium Development Goals (2000-2015)
4. National Safe Abortion Policy 2002
5. National Safe Motherhood Plan 2002-2017 (Revised Safe Motherhood and Neonatal Health Long Term Plan 2006-17)
6. Human Resource for Health strategic plan 2003-2017
7. Nepal Health Sector Strategy – An Agenda for Reform 2004
8. National Neonatal Health Strategy 2004
9. National Nutrition Policy and Strategy 2004 (Revision in 2008)
10. National HIV/AIDS strategy (2006-2011)
11. National Policy on Skilled Birth Attendants 2006
12. National Blood Transfusion Policy 2006
13. Free Health Care Policy 2006
14. National School Health and Nutrition Strategy 2006
15. Three Year Interim Plan (2007/8-2009/10)
16. Nepal Health Sector Programme – Implementation Plan II (2011-2015)
17. Human Resource for Health Strategic Plan 2011-2015.

Teaching learning methods

Teaching learning methods of this course include didactic lectures, seminar, group work, and presentations review papers discussion in class room setting.

Evaluation

Internal assessment in different forms   20%
Final examination   80%

References

1. Nepal's Quest for Health – Hemang Dixit
2. National HIV/AIDS Policy 1995, MoHP
3. Second Long Term Health Plan (1997-2017), MoHP
4. National Safe Motherhood Policy 1998, MoHP
5. Local self governance act 1999, Nepal Government
6. Millennium Development Goals 2000-2015, Millennium Summit Document
7. National Safe Abortion Policy 2002, MoHP
8. National Safe Motherhood Plan 2002-2017 (Revised Safe Motherhood and Neonatal Health Long Term Plan 2006-17), MoHP
9. Nepal Health Sector Strategy – An Agenda for Reform 2004, MoHP
10. National Neonatal Health Strategy 2004, MoHP
11. Nepal Health Sector Programme – Implementation Plan I (2004-09), MoHP
12. National Nutrition Policy and Strategy 2004 (Revision in 2008), MoHP
13. National Policy on Skilled Birth Attendants 2006, MoHP

14. National Blood Transfusion Policy 2006
15. Free Health Care Policy 2006, MoHP
16. National School Health and Nutrition Strategy 2006, MoHP and MoE
17. Three Year Interim Plan (2007/8-2009/10), Nepal Government
18. Nepal Health Sector Programme – Implementation Plan II (2011-2015), MoHP
19. MoHP 2011. Human Resource for Health Strategic Plan 2011-2015.

Course Title	Human Resource for Health	
Fourth Year	Eighth Semester	Course code: BPH 408.2-HRH
Credit Hours: 3	Full Mark: 100	Pass Mark: 50

Course description

This course offers an opportunity for conceptual understanding of human resource development (HRD) and its specific application in human Resource for Health (HRH) development. The course attendants will attend lecture sessions as well as participate in seminar classes to discuss the modern concepts, principles and strategies of HRH in the context of national health manpower development of Nepal.

Learning Objectives

Upon the successful completion of the course, students will be able to:

- Describe the modern concepts of planning, production and utilization of Human Resource of Health.
- To conceptualize the role of various agencies in HRH planning in Nepal
- Critically analyse the HRH concept as applied in the context of Nepal.

Course contains

Unit 1: Introduction to human resource and development   8 Hours

- Concept and definition of HR and HRD.
- Function of HR and HRD
- HRD in the context of organizational development
- Interrelationship among the planning, production and utilization (management) cycle in HRD.
- Pre-requisites for HRD.
    - On the basis of statistical need
    - Leadership readiness.
    - Enabling legislation
    - Administrative capacity
    - Political dimension

Unit 2: Human Resource for Health (HRH) planning   18 Hours

- Conceptualizing planning in the context of health
- Analysis of health care needs in the country
    - Demographic tends
    - Epidemiological trends
    - Socio-economic trends
    - Development of scientific and technical capability.

- Estimating of HRH.
  - Market oriented method.
  - Service Target / Panel expert.
  - Economic demand method
  - Statistical method.
  - Need based Requirement and manpower projection

- Overview, objective, strategies, targets, challenges and critical appraisal on National strategic plan for HRH

- Role of various institution in support to HRH planning
  - National Planning Commission
  - MOHP / Ministry of Education
  - Universities/Health Science Institutions

- Critical analysis of the existing HRH planning process in the context of national health services system of Nepal. HRH planning models from other countries.

Unit 3: HRH Production   12 Hours
- Concept and definition of HRH production
  - Demand and supply of Human Resources
  - Role of public and private sectors

- Analysis of manpower situation (public and private sectors)
  - Mismatch among various categories and levels of HRH.
  - Gap between demand and supply analysis.
  - Critical analysis of mal and mis-distribution of HRH in the context of Nepal.
  - Preventive, curative, promotive/rehabilitative human resources for health.

- Interrelationship between health services system and education system
  - Co-ordination between Ministry of health and Ministry of Education in producing High level HRH, Mid level HRH, Grass root level HRH.
  - Critical analysis public private mix in the production of HRH for Nepal.

- Role of NHPC, NMC, NNC, NPC, NAMC
  - Overview on objective, function and role in quality assurance in HRH production

Unit 4: HRH Utilization   **10 Hours**

- Concept on HRH management and utilization
    - Recruitment Procedure
    - Selection and deployment
    - Employment motivation
        - Promotion and gratitude
        - Reward/ Punishment
        - Job Security
        - Staff career development
    - Concept, component and importance of job description, JD of D/PHO

- Role of health care service system in HRH utilization
    - National health services system -primary, secondary, tertiary levels.
    - Role of private sectors

- Concept, objective, role, function, importance and critical appraisal application
    - HuRDIS - (Human Resource Development Information System)
    - PIS- (Personal Information System)

Teaching learning methods

Teaching learning methods of this course include didactic lectures, group work, and presentations review papers discussion in class room setting.

Evaluation

Internal assessment in different forms 20%
Final examination 80%

References

1. Byars, Ll Rue LW Rue "Human Resource Management" Boston: Richard D. Irwin, IMG, 1991.
2. Strategic plan for HRH 2003-2017
3. Human resource for health planning, WHO
4. Act of different Councils
5. Regmi B, Human resource for health and development
6. Second long term health plan 1997-2017
7. Hornby, P et al, "Guidelines for Health Manpower Planning" Geneva: WHO, 1980.
8. Hall, TL and A Meija (Eds.) "Health Manpower Planning" Geneva: WHO 1980
9. Pradhananga, YP "Health and Health Care in Nepal" (in Nepali) Bhaktapur.
10. Wearther, WB Dawis K "Personnel Management and Human Resources" New York: MC Graw Hill, 1985.
11. WHO Development of Educational Programmes for Health Personnels, Geneva. 1977.

Course Title	Project Management	
Fourth Year	Eighth Semester	Paper : BPH 408.3-PM
Credit Hours: 3	Full Mark: 100	Pass Mark: 50

Course Description

Project Management equips the business professional with leading methodologies and practices in the health project management field. Public health professional need to manage different health related programme intervention, development and evaluation. Professionals need to accompany the knowledge about the project management and this chapter describes all the matters of project management. Project management is a requirement for professionals in many fields, with many employers now identifying project management skills as vital for corporate success.

Learning Objectives

Upon the successful completion of the course, students will be able to:
- Define and explain project management and project leadership.
- Understand and apply the sequential steps of the project management framework.
- Understand the importance and function of project management and apply the project process of initiating, planning, executing, controlling and closing the project.
- Define the roles of the project manager, the project team member and effectively communicate with the project team, clients and customer (sponsor)
- Apply knowledge and skills to manage the project scope, project time and work flow, project cost and budgets, project resources, project quality, project human resource requirements, project communication (reports, meetings, correspondence, etc.) project changes and project risk management.
- Understand the critical people skills needed to lead projects.
- Prepare a project charter.

Course Content

Unit 1: Introduction to Project Management   **4 Hours**
- Concept and definition of project, program
- Project management, benefit and limitation of project management
- Project Constraints
- Understanding the Nature of Projects
- Project Identification
- The Project Life Cycle
  - o Formulation Phase
  - o Planning Phase (Developmental Phase)

- o Implementation Phase
- o Termination Phase

Unit 2: Project formulation   2 Hours
- The Project Initiation Stage
- Literature review
- Identifying What has Triggered your Project
- Determining Project Goals
- TOR, RFP

Unit 3: Project planning and development   10 Hours

- **Project planning and developmental process**
    - o Understand project objectives
    - o Identify key project stages
    - o Prepare work break down structure
    - o Determine logical sequence of activities
    - o Estimate time and resource requirements
    - o Allocate responsibilities for each activity
    - o Finalize project plan

- **Models of Project Planning**
    - o Concept and definition of project planning, importance of project planning
    - o Approach of project planning
        - Conventional Methods
        - Logical frame work approach in project planning- Concept, definition and major steps in LFA
            - Situation Analysis
            - Strategy Analysis
            - Project Planning Matrix
            - Implementation
    - o Meaning of log frame, element of log frame and development of log frame matrix
    - o Time management and development of work plan/GANNT chart, Its importance in project management

- **Project Budget sources**
    - o Concept and definition of budget
    - o Importance of funding, source of funding
    - o Transparency of project fund process
    - o Types of fund

Unit 4: Project Implementation Phase   **8 Hours**
- o Implementation
  - Concept, phase of implementation
- o Control
  - Project Control
    - Monitoring and control
    - Evaluation
- o Monitoring
  - Institutional Monitoring
  - Context Monitoring
  - Results Monitoring
  - Objective Monitoring
  - Project Monitoring Matrix

- o Control
  - Financial control process
  - HR control process
  - Activities control process

- o Evaluation
  - Programme evaluation
    - Baseline study
    - Annual review
    - Mid-term evaluation
    - Final evaluation
    - Ex-post evaluation
  - System evaluation
    - Input, process and output

Unit 5: Project Termination Phase   **2 Hours**
- o Concept of termination, importance of termination
- o Process of termination
  - Termination handover
    - Project termination evaluation and its component
    - Project sustainability and its importance
  - Project end

Unit 6: Project analysis   **8 Hours**
- Concept of project analysis, benefits of analysis
- Meaning of efficiency and effectiveness
- Meaning of output, outcome, effect and impact analysis

- CPM and PERT analysis
- SWOT analysis
- Overview of EIA

Unit 7: Risk management of project   6 Hours
- Strategy change agenda
- Planning the Quality Element
- Decision Making and Risk Taking Skills
- Quick information
- Contingency plan
- Updating Project Assumption & Time Constraints

Unit 8: Reporting   4 Hours
- Definition and importance in project intervention
- Difference between reports and reporting
- Types of reporting (Inception, Initial, mid time, draft and final reporting)
- Mechanism of reporting and feed back

Unit 9: Project proposal   4 Hours
- Concept and its application
- Types of project proposal
  - Technical proposal
  - Financial proposal
- Components of Technical proposal
- Layout of Project proposal
- Proposal Evaluation Criteria
  - Relevance and effectiveness
  - Feasibility and efficiency
  - Impact
  - Sustainability
  - Capacity (HR and organizational)

Teaching learning methods
Teaching learning methods of this course include didactic lectures, group work, and presentations review papers discussion in class room setting.

Evaluation
Internal assessment in different forms   20%
Final examination   80%

References

1. Health Project planning and management, WHO
2. A, Govinda, Project management
3. S, Choudhary, Project management, Tata McGraw-Hill publishing company limited
4. Health project planning and management, Binod Regmi, 2012
5. Adams, John R., Principles of Project Management. 1996. Project Management Institute Publications, Sylva, NC. ISBN 1-880410-30-3 (pbk).
6. Regmi B, Project Management and Development
7. Frame, J. Davidson, Managing Projects in Organizations: How to Make the Best Use of Time, Techniques, and People , *3rd edition,* Jossey-Bass, 2003, ISBN 0-787-96831-5
8. Kerzner, Harold, *Project Management:* Project Management: A Systems Approach to Planning, Scheduling, and Controlling *, 10th edition*, Wiley, 2009, ISBN 0-470-27870-6
9. Larson, Elizabeth and Richard, *Requirements Management, Part 1: Requirements Planning*Watermark Learning, Inc., 2009, ISBN 978-0578019598
10. Lewis, James, The Project Manager's Desk Reference, *3rd edition,* McGraw-Hill, 2006, ISBN 0-071-46464-6
11. Martin, Paula, Tate, Karen, *The Project Management Memory Jogger: A Pocket Guide for Project Teams* , GOAL/QPC, 1997, ISBN 1-576-81001-1
12. Meredith, R. Jack and Mantel, Jr., Samuel J., Project Management: A Managerial Approach *, 7th edition,* Wiley, 2008, ISBN 0-470-22621-8
13. Project Management Institute, *A Guide to the Project Management Body of Knowledge: (PMBOK® Guide)* , *4th edition*, PMI, 2008, ISBN 1-933-89051-7
14. Schwalbe, Kathy, Information Technology Project Management (with Microsoft® Project 2007 CD-ROM) , *6th edition,* Course Technology, 2009, ISBN 0-324-78692-1
15. Weiss, Joseph and Wysocki, Robert, Five-phase Project Management: A Practical Planning And Implementation Guide , Basic Books, 1992, ISBN 0-201-56316-9

Course Title	Term Paper Preparation (National Health Policy and Plan)		
Fourth Year	Eighth Semester		Course code: TPP 408.1-NHPP
Credit Hour: 1	Full Mark: 50		Pass Mark: 30

Course description

Students will observe the lab and field based demonstration, collection of specimen, preservation and maintains all these things in log or practical book under the direct supervision of concern teacher and public health department. Students will acquire practical knowledge and skill on national health policy and plan.

Details of TPP			
Subject	Practical Hour	Content	Log or practical book
National Health Policy and Plan	32	- Individual term paper presentation on national health plan and policy with critical appraisal - Preparation and submission of report to department	**Maintain**
Total practical : 32 Hours			

Maintain process of log or practical book

- Write practical with specific detail, description, process and drawing manually
- All practical should be signed by respective teacher and head of the department/Coordinator
- All student must bring practical log book/ report in final examination
- Final examination will be based on practical

Course Title	Term Paper Preparation (Human Resource for Health)	
Fourth Year	Eighth Semester	Course code: TPP 408.2-HRH
Credit Hour: 1	Full Mark: 50	Pass Mark: 30

Course description

Students will observe the lab and field based demonstration, collection of specimen, preservation and maintains all these things in log or practical book under the direct supervision of concern teacher and public health department. Students will acquire practical knowledge and skill on human resource for health.

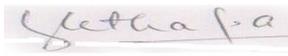| Details of TPP			
Subject	Practical Hour	Content	Log or practical book
Human Resource for Health	**32**	- Development of comprehensive critical review of HRH situation of any organization (College, INGOs/NGOs, CBO, Government etc) - Development of planning, production and utilization plan based on the situation study of above organization. - Current situation of health workforce in aspects of planning, production and utilization in context of Nepal and critical review - Preparation, presentation and submission of report to department	**Maintain**
Total practical : 32 Hours			

Maintain process of log or practical book

- Write practical with specific detail, description, process and drawing manually
- All practical should be signed by respective teacher and head of the department/Coordinator
- All student must bring practical log book/ report in final examination
- Final examination will be based on practical

Course Title	Practical Skill Development (Project Management)	
Fourth Year	Eighth Semester	Course code: PSD 408.3-PM
Credit Hour: 1	Full Mark: 50	Pass Mark: 30

Course description

Students will observe the lab and field based demonstration, collection of specimen, preservation and maintains all these things in log or practical book under the direct supervision of concern teacher and public health department. Students will acquire practical knowledge and skill on project management.

Details of PSD			
Subject	**Practical Hour**	**Content**	**Log or practical book**
Project management	32	- Development of comprehensive project proposal in any health and social issues - Presentation of proposal and submission of report to Public health department with hard and sift copy - Extraordinary proposal will be awarded by department with special certification process (Finalization through independent evaluation team)	Maintain
Total practical : 32 Hours			

Maintain process of log or practical book

- Write practical with specific detail, description, process and drawing manually
- All practical should be signed by respective teacher and head of the department/Coordinator
- All student must bring practical log book/ report in final examination
- Final examination will be based on practical

Course Title	Practical Skill Development (Public Health Research Report)	
Fourth Year	Eighth Semester	Course Code : PSD 408.4-PHRR
Credit Hours: 6	Full Mark: 200	Pass Mark: 120

Course Description

This course has been designed to equip the student with the basic research tools and methods in public health sciences. The course aims to develop practical skill of development research proposal by analyzing the public health issue. More ever, students have got practical knowledge about data collection, management, analysis and presentation of data including the preparation of research report. The attendants of the course will be able to design and conduct public health research activities in the field to generate relevant information, which can be used for the improvement of the public health program in the country.

Learning Objectives

Upon the successful completion of the course, students will be able to:
- Explain the meaning purpose and importance of research in public health sciences.
- Deliver skill on basic terminology used in research
- Skill enhance development of research proposal
- Implementation of various types of research methods applicable in public health sciences.
- Apply qualitative and qualitative techniques of health research
- Skill enhance in communication and establishment of rapport, collection of data, management and analysis
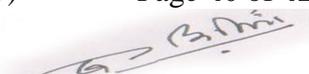- Produce a research report on selected issues in public health

Course Contents   192 Hours

Unit-1: Process of research
- Selection, presentation and finalization of research title Development of proposal
- Presentation of proposal
- Receiving of approval and ethical consideration letter from concern institution and other institution if necessary
- Approval taken from concern authority of field activation
- Collection of data
- Data coding, decoding, feeding and cleaning
- Analysis of data
- Development of report, correction and re-correction from concern guide
- Development of draft report
- Presentation of finding
- Attending the final examination

- Incorporation of feedback
- Development of final report
- Submission of final report 3 copy of hard black binding to public health department

College should be provided the research guide individually and all the students must visit with respective guide for necessary guidance and keep recording of visit, purpose of visit, date of visit with signature). This record must be bring in final examination for evaluation of individually.