

UNIVERSITY OF THE PUNJAB

NOTIFICATION

It is hereby notified that the Syndicate at its meeting held on 15.11.2021 approved the recommendations of the Academic Council made at its meeting dated 07.10.2021 regarding grant of permission to start BS Workplace Health Promotion (4 years) program, (Regular/Replica) at the Institute of Social & Cultural Studies alongwith approval its Syllabus w.e.f. the Academic Session 2021 subject to the availability of resources/infrastruction and fulfillment of Students/Teachers Ratio.

The Syllabus of BS Workplace Health Promotion is attached vide Annexure- 'A'.

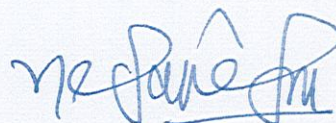
**Admin. Block,
Quaid-i-Azam Campus,
Lahore.
No. D/112/Acad.**

**Sd/-
Muhammad Rauf Nawaz
Registrar**

Dated: 10.01/2022.

Copy of the above is forwarded to the following for information and necessary action: -

1. Dean, Faculty of Behavioural & Social Sciences.
2. Director, Institute of Social & Cultural Studies
3. Director, QEC
4. Director, IT
5. Controller of Examinations
6. Secretary to the Vice-Chancellor
7. PS to PVC
8. PS to Registrar
9. Assistant Syllabus



**Assistant Registrar (Academic)
for Registrar**

CURRICULUM

OF

BS WORKPLACE HEALTH

PROMOTION

(4 Year) Program

Program Title: BS (4 Year) Workplace Health Promotion

Department: Institute of Social & Cultural Studies

Faculty: Faculty of Behavioral and Social Sciences

1. Department Mission

Our mission at the Institute of Social & Cultural Studies (ISCS) is to help our students and community by staying true to the ontological and epistemological traditions of our discipline. In an open and interactive environment, we encourage our students and faculty to pursue the shared resolve to understand ourselves as human beings, our interdependence on each other and the trends of cooperation and conflict that influence our mutual existence. As educators and social scientists, we endeavor to imbue our students with a sense of 'self' that is innately connected to the 'collective'. It is our hope and belief that our pedagogical style will promote peace and compassion through learning. We intend to create indigenous sociological knowledge and apply professional research skills to influence social policies for desirable social change in our own cultural domain. This has the aim of improving our social and cultural environment and raising the quality of life in Pakistan.

2. Introduction

The Institute of Social and Cultural Studies (ISCS) is a student-centered and research oriented institution. It offers a range of high-quality educational programs at undergraduate, graduate, and postgraduate levels. Currently the Institute offers PhD in Sociology and Public Health, M.Phil. in Sociology, Education Policy & Development and Public Health. The Institute also offers Masters Programs in Sociology, Population Sciences, Development Studies, Criminology & Security Studies and BS Sociology, Public Health, Demography and Criminology (4 Year) Program. The ISCS is dedicated to the discovery, sharing and application of knowledge to aid in the due progress of our society, and the nation. The core value of the ISCS remains the pursuit of useful knowledge for improving human life.

3. Program Introduction

BS Workplace Health Promotion (WHP) (4 Year) program is an undergraduate degree, which aims to provide an introduction to major concepts and issues in occupational health and safety. The program provides the conceptual framework for working with populations of workers and apply public health principles regarding the work-related hazards and mitigation strategies of prevention and control of these risks. The major courses of this program rely on the synthesis

of knowledge in the public health, behavioral sciences, industrial hygiene, injury epidemiology, safety promotion, risk management, toxicology and epidemiology.

The BS Workplace Health Promotion (4 Year) program is designed to equip the students with the knowledge, understanding and skills necessary to work at strategic level within organizations and industries, undertaking effective health, safety and workplace management based around principles of best practice and integrated risk management. The safety promotion component of the WHP program aims to provide a qualified analysis and understanding of measures which promote safety and prevent injuries from a local, national and international perspective. Students learn to plan, carry out and assess public safety work.

In addition to the class room learning of theoretical and conceptual framework related to the health, safety and risk management students will also participate in an observational visit to a local manufacturing plants, heavy industries and government institutions/organization working in the field of emergency, rescue and public safety.

The BS Workplace Health Promotion program is a four year (08-semester) degree program comprising of a mixture of core, foundation/ basic, major elective, minor elective and general courses with 138 credit hours to be completed in eight semesters. The students will also be working on different research project for enhancing their research skills.

Initially, this BS (4 Year) program will be offered at the Institute of Social and Cultural Studies and will move to Faculty of Health Sciences when Department of Public Health move to Faculty of Health Sciences.

4. Program Objectives

The objectives of BS WHP (4 Year) Program is to:

1. Enable students to develop the knowledge, understanding and skills necessary to apply appropriate health, safety and risk management techniques at strategic and other levels with organizations and industries
2. Enable students to review and critically evaluate methods and techniques of health, safety and risk management
3. Develop understanding of safe workplace environment and risk associated with wellbeing of workers in industry to enhance awareness of the ways in which health, safety and the risk management integrate with the sustainability agenda

4. Enable students to evaluate and advise upon appropriate strategic and sustainable policies for organizations and industries, including implementation processes
5. Conduct basic and applied research relevant to the description, risk factors and interventions for the resolution of health, safety problems in workers and labor.

5. Market Need / Rationale of the Programme

- Provide leadership in managing a diverse and complex range of organizational and industries risks, adopting a strategic, analytical and creative approach to problem solving
- Develop students' abilities to interpret and advice upon policy and legislation within the scope of health, safety and risk management.
- Enable students to develop the research and management skills required to collect, analyze, evaluate and present information in the context of health, safety and risk management.
- Demonstrate specific understanding of key technical options for the prevention, treatment, mitigation and measurement of pollution emissions and waste and identify the best available techniques.
- Assess and critically evaluate risk management methods and techniques within the context of corporate governance and business continuity systems.
- Identify and apply behavioral theories and models in order to understand and enhance health, safety and risk management performance in organizations and industries.

a) Core Competencies:

At the end of the program, the graduate is expected to:

- Interpret and analyze relevant national and international policy and legislation applicable to organizations within the sphere of health, safety and the risk management.
- Develop and evaluate techniques which can be employed to influence change within organizations and industries in the subject area.
- Engage as a reflective practitioner, self-assess own competency levels for health, safety and risk management, and ensure continuous professional development by identifying and evaluating options for self-improvement.

- Analyze and evaluate a diverse and complex range of health, safety and risk management issues within complex industrial settings, and recommend cost effective solutions.
- Research and investigate health and safety incidents/issues and critically evaluate findings with a view to providing cost effective recommendations for improvement.
- Communicate complex health, safety and risk management issues to both experts and general public.
- Design and undertake an independent research project related to health, safety and risk management issues issues/concerns and write a substantive piece of work

I. Potential students for the program

The candidate having F.Sc. or equivalent qualification with minimum 2nd division and age not more than 24 years are eligible for admission in this program.

II. Potential Employers

- Rescue Department (1122), Government of Punjab
- Labor Department, Government of Punjab
- Environment Project Department, Government of Pakistan/Punjab
- Health Department such as Primary and Secondary Healthcare Department Specialized Health Education and Healthcare department and Ministry of National Health Services.
- Multinational Companies, Heavy Industries, Large Production Units and other private industries/firms and companies
- NGO's such as ILO, WHO, UNOSHA, Global Road Safety Partnership (GRSP), IOM, UNICEF, USAID, World Bank, and UNFPA.
- Universities and colleges offering this degree program in future

III. Academic Projections

The following Foreign and Pakistani universities are offering a degree in WORKPLACE HEALTH PROMOTION/ SAFETY PROMOTION AND OCCUPATIONAL HEALTH at BS level.

Foreign Universities

- Johns Hopkins University, USA
- University of Liverpool, United Kingdom

- University of Toronto, Canada
- University of Melbourne, Australia
- Karolinska Institute, Sweden
- Erasmus University Rotterdam, Netherlands
- University of Queensland Australia, Australia
- University of Copenhagen, Denmark
- Heidelberg University, Germany

Pakistani's Universities

- Hamdard University, Karachi
- The Aga Khan University, Karachi
- Preston University, Islamabad
- Pakistan Institute of Management, Karachi

b) Faculty

The Institute offers M.Phil. & PhD Public Health since 2014. A large body of the permanent faculty has interest and expertise of teaching various courses in the field of public health. In addition, the Institute also hires experts in the said field as visiting faculty for subject areas where there is no faculty available. The Institute already has a large pool of visiting faculty from within the university and outside for teaching some selected courses in this program.

c) Physical Facilities

ISCS has large infrastructure and resources available to run this program. This includes well equipped class rooms, computer lab, and a library. All class rooms have multimedia available for lectures and other audio visuals. The computer lab has large number of computers with all required software e.g. SPSS, software for GIS with a full time lab attendant. The Institute library also has a large collection of new books and journals in soft and hard form for the students and faculty. In addition to the full time faculty, the Institute has office space assigned for visiting faculty. The Institute has one large auditorium with a seating capacity of around 133 and four conference rooms. These spaces are used regularly for conferences and seminars.

6. Admission Eligibility Criteria

- Years of Study Completed 12 years
- Study Program/Subject BS Workplace Health Promotion
(4 Year) program

- Percentage/CGPA As per university rules and regulations
- Entry Test (If applicable) with Minimum requirement No Entry Test (Open Merit)
- Any Other (if applicable) F.Sc. or equivalent / 50 %

7. Duration of the Program

Minimum 4 Years/ 08 Semester System / 138 Credit Hours

8. Assessment Criteria

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 mark

9. Categoryization of course as per HEC Recommendation and Difference

Seme sters	Category (Credit Hours)					
	Core/ Compulsory	Basic/Foundation Course	Major Elective	Minor Electives	General/Other	CH
1	<ul style="list-style-type: none"> English-I (Functional English) Pakistan Studies Introduction to Computer Applications Mathematics-1/ Essential Biology 	<ul style="list-style-type: none"> Fundamentals of Environment & Occupational Health 			<ul style="list-style-type: none"> Human Anatomy 	17
2	<ul style="list-style-type: none"> English-II (Communication Skills) Islamic Studies/ Ethics 	<ul style="list-style-type: none"> Introduction to Safety Promotion 	<ul style="list-style-type: none"> Fundamentals of Public Health Bio Statistics 		<ul style="list-style-type: none"> Mass Communication 	17
3	<ul style="list-style-type: none"> English-III (Technical Writing & Presentation Skills) 	<ul style="list-style-type: none"> Basic Epidemiology Introduction and Principles of Risk Management 		<ul style="list-style-type: none"> Sociology of Health and Illness 	<ul style="list-style-type: none"> Leadership and Management Organizational Behavior 	18
4	<ul style="list-style-type: none"> English-IV (any other subject may be offered)/ Academic Writing 	<ul style="list-style-type: none"> Introduction to Ergonomics Workplace Health Promotion 	<ul style="list-style-type: none"> Road Safety and Injury Prevention 	<ul style="list-style-type: none"> Disaster Management 	<ul style="list-style-type: none"> Principles of Psychology 	18

5		<ul style="list-style-type: none"> • Policy, Laws and Regulations in Occupational Safety & Health (OSH) 	<ul style="list-style-type: none"> • Emergency Preparedness, Rescue and Response • Project Planning & Management 	<ul style="list-style-type: none"> • Concept of health education and promotion • Trauma Management 	<ul style="list-style-type: none"> • Medical Anthropology 	18
6		<ul style="list-style-type: none"> • Principles and Practices of Safety Management System • Internship 	<ul style="list-style-type: none"> • Toxicology / Waste Management • Monitoring, Measurement, and Evaluation of Occupational Safety and Health (OSH) 	<ul style="list-style-type: none"> • Introduction to SPSS • Advocacy & Social Mobilization in Occupational Safety & Health (OSH) 		18
7			<ul style="list-style-type: none"> • Research Methods 	<ul style="list-style-type: none"> • Disability and Rehabilitation • Mental Health Promotion • Human Physiology • Global Burden of Disease of Injuries and Non - communicable Diseases • Health promotion and later life 		15
8			<ul style="list-style-type: none"> • Thesis 	<ul style="list-style-type: none"> • Assessment and Control of Work-Related Hazards 	<ul style="list-style-type: none"> • Introduction to Environment Science 	17

				<ul style="list-style-type: none"> • Personal Hygiene and Health • Gender and Occupational Health & Safety • Delivering Health Promotion Interventions 	<ul style="list-style-type: none"> • Professional Ethics 	
HEC Guidelines		YES				
Difference (HEC) & PU		Books Readings and course objectives have been revised. So it is different than HEC curriculum. Nevertheless, all the subjects offered as according to HEC Curriculum.				

- Total numbers of Credit hours 138
- Duration 4 years
- Semester duration 16-18 weeks
- Semesters 08
- Course Load per Semester 15-18 Credit Hours
- Number of courses per semester 4-6

10. Curriculum Difference

Not Applicable

Scheme of Studies for BS (4 Year) Workplace Health Promotion (WHP)

Sr. No.	Course Code	Title of Course	Course Type	Pre-requisite	Credit Hours
Semester-I					
1.	WHP 101	Fundamentals of Environment & Occupational Health	Basic/ Foundation		3(3-0)
2.	WHP 102	Human Anatomy	General		3(3-0)
3.	WHP 103	Mathematics I / Essential Biology	Core/ Compulsory		3(3-0)
4.	WHP 104	English-I	Core/ Compulsory		3(3-0)
5.	WHP 105	Introduction to Computer Applications	Core/ Compulsory		3(3-0)
6.	WHP 106	Pakistan Studies	Core/ Compulsory		2(2-0)
					17
Semester-II					
1.	WHP 107	Introduction to Safety Promotion	Basic/ Foundation		3(3-0)
2.	WHP 108	English-II	Core/ Compulsory		3(3-0)
3.	WHP 109	Islamic Studies/Ethics	Core/ Compulsory		2(2-0)

4.	WHP 110	Fundamentals of Public Health	Major Elective		3(3-0)
5.	WHP 111	Bio-Statistics	Major Elective		3(3-0)
6.	WHP 112	Mass Communication	General		3(3-0)
					17
Semester-III					
1.	WHP 201	Basic Epidemiology	Basic/ Foundation		3(3-0)
2.	WHP 202	Introduction and Principles of Risk Management	Basic/ Foundation		3(3-0)
3.	WHP 203	English-III	Core/ Compulsory		3(3-0)
4.	WHP 204	Sociology of Health and Illness	Minor Elective		3(3-0)
5.	WHP 205	Leadership and Management	General		3(3-0)
6.	WHP 206	Organizational Behavior	General		3(3-0)
					18
Semester-IV					
1.	WHP 207	Introduction to Ergonomics	Basic/ Foundation		3(3-0)
2.	WHP 208	Workplace Health Promotion	Basic/ Foundation		3(3-0)
3.	WHP 209	English-IV/ Academic Writing	Core/ Compulsory		3(3-0)
4.	WHP 210	Road Safety and Injury Prevention	Major Elective		3(3-0)

5.	WHP 211	Disaster Management	Minor Elective		3(3-0)
6.	WHP 212	Principles of Psychology	General		3(3-0)
					18
Semester-V					
1.	WHP 301	Policy, Laws and Regulations in Occupational Safety & Health (OSH)	Basic/ Foundation		3(3-0)
2.	WHP 302	Emergency Preparedness, Rescue and Response	Major Elective		3(3-0)
3.	WHP 303	Project Planning & Management	Major Elective		3(3-0)
4.	WHP 304	Concept of Health Education and Promotion	Minor Elective		3(3-0)
5.	WHP 305	Trauma Management	Minor Elective		3(3-0)
6.	WHP 306	Medical Anthropology	General		3(3-0)
					18
Semester-VI					
1.	WHP 307	Internship/ Project	Basic/ Foundation		3(0-3)
2.	WHP 308	Principles and Practices of Safety Management System	Basic/ Foundation		3(3-0)
3.	WHP 309	Introduction to Environment Science	General		3(3-0)
4.	WHP 310	Monitoring, Evaluation of Occupational Safety and Health (OSH)	Major Elective		3(3-0)

5.	WHP 311	Introduction to SPSS	Minor Elective		3(3-0)
6.	WHP 312	Advocacy & Social Mobilization in Occupational Safety & Health (OSH)	Minor Elective		3(3-0)
					18
Semester VII					
1.	WHP 401	Research Methods	Major Elective		3(3-0)
2.	WHP 402	Disability and Rehabilitation	Minor Elective		3(3-0)
3.	WHP 403	Mental Health Promotion	Minor Elective		3(3-0)
4.	WHP 404	Human Physiology	Minor Elective		3(3-0)
5.	WHP 405	Global Burden of Disease of Injuries and Non-communicable Diseases	Minor Elective		3(3-0)
					15
Semester-VIII					
1.	WHP 406	Research Thesis	Major Elective		6(0-6)
2.	WHP 407	Assessment and control of Work related Hazards	Minor Elective		3(3-0)
3.	WHP 408	Toxicology /Waste Management			3(3-0)
4.	WHP 409	Personal Hygiene and Health	Major Elective		3(3-0)
5.	WHP 410	Gender Occupational Health & Safety	Minor Elective		2(2-0)
					17
Total Credit Hours					138

11. **Research Thesis/ Project and Internship**

a. **Thesis/ Project:** 6 Credit hours

b. **Internship:** 3 Credit hours

12. **Award of Degree**

The degree will be awarded as per University of the Punjab rules and regulations. The student has to complete 138 credit hours, thesis, and internship to qualify for the degree.

13. **Faculty Strength**

Degree	Area/Specialization	Total
PhD	Mental Health, Social Psychology, Social Security, Public Health, Gender and Violence, Reproductive Health, Social Change & Social Movements, Political Sociology, Social Well-Being	9
M. Phil	Injury prevention, Community Health, Migration, and Gender and Health	3
Total		12

14. **NOC from Professional Councils (If Applicable)**

Not Applicable

15. **Present Student Teacher Ratio in Department**

Not Applicable

Detail of courses semester-wise

FIRST SEMESTER

Course No.	Title of Course	Credit Hours
WHP 101	Fundamentals of Environment & Occupational Health	3(3-0)
WHP 102	Human Anatomy	3(2-1)
WHP 103	Mathematics / Essential of Biology	3(3-0)
WHP 104	English-I	3(3-0)
WHP 105	Introduction to Computer Applications	3(2-1)
WHP 106	Pakistan Studies	2(2-0)
		17

WHP 101: FUNDAMENTALS OF ENVIRONMENT & OCCUPATIONAL HEALTH

Course Description

- This course introduces the principles of environmental health and occupational health.
- This course will examine the short- and long-term effects of environmental hazards on worker's health. Students consider their own interactions with natural and human made environments to assess the impact of chemical, physical, biological, and social elements on their health.

Course Objectives

After studying this course, students should be able to:

1. Describe effects of environment on health
2. Identify Enforcement Policy
3. Highlight demands of the Health and Safety Service
4. Inspect Environmental Protection Inspection Service
5. Understand licensing and Regulatory rule

Course Content

1. Introduction to Environment

- Air Pollution
- Noise Pollution
- Water Pollution
- Water Purification
- Radiation, its Hazards and Prevention
- Waste Management

2. Ozone Layer Depletion

- Climate Change and Global Warming

3. Introduction to Occupational Health

- Evolution of Occupational Health (Labor Movements)
- Occupational Health Hazards and its Prevention
- Work Place Safety
- Prevention of hospital based health hazards in hospital workers

- Social Security
- Prevention of Gender Harassment
- Personal Protective Equipment (PPE).

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Friis, R. (2012). *Essentials of Environmental Health*. (2 ed.). Burlington, MA: Jones and Bartlett Learning. ISBN#: 9780763778903 (print), 9781449632380 (e-text).
2. Koh, D.(Author) & Takahashi, K. (Ed.) (2011). *Textbook of Occupational Medicine Practice* (3rd Edition). ISBN-10: 9814329576.
3. Pedro, M. A., João, S. B., Mónica, P. B., Paula, C., Néilson, C., Rui, B. M., Sérgio, M. A., & Gonçalo, P. (2019). *Occupational and Environmental Safety and Health* edited
4. Barry, S. L., David, H. W., Sherry, L. B., & Rosemary, K. S. (2018). *Occupational and Environmental Health: Recognizing and Preventing Disease and Injury* 7th edition.
5. Barry, S. L., David, H. W., Sherry, L. B., & Rosemary, K. S. (2011). *Occupational and Environmental Health: Recognizing and Preventing Disease and Injury* 6th edition.
6. Moore, G. S. (2002). *Living with the earth: Concepts in environmental health science*, 2nd Edition. Boca Raton, FL: Lewis Publishers.
7. Sellers, C. C. (1997). *Hazards of the job: from industrial disease to environmental health science*. Chappel hill: University of North Carolina Press.
8. Vesilind, P. A., & Pierce, J. J. (1983). *Environmental Pollution and Control*, 4th Edition Boston MA: Butter worths Publishers.

WHP 102: HUMAN ANATOMY

Course Description

- The Human Anatomy course is designed to provide student with an overview of common terminology and present the major anatomical structures of the human body's systems.

Course Objectives

After studying this course, students will be able to:

1. Acquire knowledge about structural components of body
2. Understand about histology and blood composition for the identification of diseases

Content - Theory

1. Introduction

- Grass anatomy,
- Histology

2. Terminology

- Bones & joints, muscles, cartilage,
- Body structure, tissue, cell, organs

3. Digestive system

- Oral cavity,
- Stomach,
- Small & large intestine

4. Urinary system/ excretory

- Kidneys,
- Ureter,
- Bladder,
- Urethra

5. Cardio-vascular system

- Heart and Pericardium,
- Arteries system, venous system
- Major arteries & veins;

6. Respiratory system

- Upper respiratory- Pharynx, Larynx, Trachea sinuses;
- Lower respiratory- Bronchus, Lungs, Diaphragm;

7. Reproduction system:

- Male-Testis, Spermatic cord, Penis, Prostate, Bulbourethral gland/ other glands
- Female- Ovaries, Fallopian tubes, Uterus, Vagina, Vulva, Breast

8. Endocrinology

- Pituitary,
- Thyroid, Parathyroid,
- Thymus
- Adrenal, Renal, super renal

9. Lymphatic system

- Lymph,
- Lymph vessel,
- Lymph node;

10. Nervous system

- Brain,
- Spinal cord,
- Cranial nerves,
- Brachial plexus,
- Sciatic nerve;

11. Sensory organs

- Eyes,
- Ears,
- Taste buds,
- Smell,
- Touch.

Content- Practical

1. Four primary tissues of body
2. Epithelium tissues: Introduction, types, epithelial glands - endocrine & exocrine,
3. Connective tissues: loose connective tissue, collagenous, elastic and reticular fiber;

4. Te-cell of loose cartilage (fibroblast, fat cell, plasma cell, macrophages, mast cell);
5. Blood: leukocytes, WBC, RBC & Platelets;
6. Cartilage and its types; Muscle and its types;
7. Histology in: GIT, respiratory, urinary systems, breast, uterus.
8. Microscopy and preparation of histological slides.

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Tortora, G.J. & Derrickson B.H. (2010). Essentials of Anatomy and Physiology. 9th edition. John Wiley & Sons.
2. Agur, A. M., & Dalley, A. F. (2009). Grant's atlas of anatomy. Lippincott Williams & Wilkins.
3. David, C. (2007). Anatomy of Hatha Yoga: A Manual for Students, Teachers and Practitioners. National Banarisdass Publishers (Pvt.) Ltd., New Delhi, India.
4. Tortora, G. J., & Petti, K. (2002). Principles of human anatomy. John Wiley & Sons.

WHP 103: MATHEMATICS

Course Description

- This course provides a review and understanding of the basic college level mathematics concepts for WHP students.
- This course involves practical arithmetic: decimals, fractions, ratios, percentages; operations on numbers; introduction to algebra. It is designed to develop skills of persons with a limited background in mathematics.

Course Objectives

The objective of this course is to enable the students to:

1. Understand the essential tools of algebra
2. Apply the concepts and the techniques arithmetic

Course Content (MATHEMATICS I-ALGEBRA)

1. Preliminaries

- Real-number system, complex numbers,
- Introduction to sets, set operations, functions, types of functions.

2. Matrices

- Introduction to matrices,
- Types, matrix inverse, determinants,
- System of linear equations,
- Cramer's rule.

3. Quadratic Equations

- Solution of quadratic equations,
- Qualitative analysis of roots of quadratic equations,
- Equations reducible to quadratic equations,
- Cube roots of unity,
- Relation between roots and coefficients of quadratic equations.

4. Sequences and Series

- Arithmetic progression,
- Geometric progression,
- Harmonic progression.

5. Binomial Theorem

- Introduction to mathematical induction
- Binomial theorem with rational and irrational indices.

6. Trigonometry

- Fundamentals of trigonometry,
- Trigonometric identities.

Teaching-Learning Strategies:

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Bertrand, R. (2008). The Principles of Mathematics Paperback.
2. Dolciani, M.P., Wooton, W., Beckenback, E.F. & Sharron, S. (1978). Algebra 2 and Trigonometry, Houghton & Mifflin, Boston
3. Kaufmann, J.E. (1987). College Algebra and Trigonometry, PWS-Kent Company, Boston
4. Swokowski, E.W. (1986). Fundamentals of Algebra and Trigonometry (6th ed.). PWS-Kent Company, Boston

WHP 103: ESSENTIALS OF BIOLOGY

Course Description

- This course examines the evolutionary basis of life and the structure and function of living organisms.
- This course will cover the major tissues, organs, and organ systems and their development from simple structures to more complicated systems.

Course Objectives

The objectives of this course are to:

1. Understand fundamentals of botany and zoology with special reference to their role in food and nutrition
2. Study plant morphological characteristics and various animal classes through the dissection of representative plants and animals

Contents- Botany

- 1. Morphology and anatomy of leaf, stem and roots in monocots and dicots;**
 - Flowers and inflorescence, their parts and types;
 - Plant systematic, different system of classification and rules of nomenclature;
- 2. Branches of ecology, their aims and application;**
 - Plant communities;
 - Vegetation sampling methods;
- 3. Ecosystem, its types and components;**
 - Food chain and food web;
 - Pollution its types and impact on plants;
 - Metabolic pathways,
- 4. Light and dark reactions of photosynthesis;**
 - Importance of photosynthesis to plant productivity;
 - Respiration, respiratory substrates;
 - Plant water relation, absorption and translocation of water and minerals;
- 5. Functional role of minerals elements in plants;**
 - Growth, role of hormones in plants growth and development;
 - Ethno botany and economic importance of plants

Content- Zoology

1. Diversity of life;

- World resources,
- Classification of animals,
- Scope of Zoology;

2. Community structure and diversity;

- Terrestrial and aquatic ecosystem;
- Ecological problems;
- Human population growth;
- Pollution; resource depletion;

3. Approaches to animal behavior;

- Proximate and ultimate causes;
- Anthropomorphism;
- Development of behavior;
- Learning and control of behavior;
- Communication;
- Social behavior;

4. Evolutionary mechanism;

- Population Sizes, Genetic drift Gene flow, Mutations, and balanced polymorphism; Species and speciation;
- Molecular evolution;
- Mosaic evolution; Protection, Support and Movement in animals;

5. Modes of communication;

- Endocrine systems and chemical messengers; Circulation, Immunity and gas exchange, Nutrition and Digestion;
- Temperature and body fluid regulations,

6. Reproduction and development in animals.

Content- Practical

1. Study of the morphology of selected ten monocot and plant species;
2. Identification and technical description of common flowering plants belonging to ten families;

3. Extraction of chlorophyll from the leaves and study of absorption spectra using spectrophotometer;
4. Field observation and report writing on animals and their behavior in terrestrial and aquatic ecosystems;
5. Study of insect cuticle, fish scales, amphibian skin, feathers and mammalian skin;
6. Study of heart, principal arteries and veins in a representative vertebrate (dissection of representative amphibian/fish/mammal).

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

WHP 104: English I (Functional English)

Course Description

- This course is based on developing the language abilities of Student Teachers through an integrated approach that provides opportunities to develop their listening, speaking, reading, and writing skills. With a focus on social interaction,
- The course draws specific attention to the accurate use of structures, improvement of pronunciation, and development of active vocabulary in descriptive, narrative, and instructional texts.

Course Objectives

After studying this course, students will be able to:

1. Enhance language skills
2. Develop critical thinking.

Course Content

1. Basics of Grammar

- Parts of speech and use of articles
- Sentence structure, active and passive voice
- Practice in unified sentence
- Analysis of phrase, clause and sentence structure
- Transitive and intransitive verbs Punctuation and spelling

2. Comprehension

- Answers to questions on a given text

3. Discussion

- General topics and every-day conversation (topics for discussion to be at the discretion of the teacher keeping in view the level of students)

4. Listening

- To be improved by showing documentaries/films carefully selected by subject teachers

5. Translation skills

- Urdu to English Paragraph writing: Topics to be chosen at the discretion of the teacher

6. Presentation skills

Note: Extensive reading is required for vocabulary building

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

Grammar

1. Thomson, A.J. & Martinet, A.V. (1997). Practical English Grammar Exercises 1. (3rd ed.). Oxford University Press. ISBN 0194313492
2. Thomson, A.J. & Martinet, A.V. (1997). Practical English Grammar Exercises 2. (3rd ed.). Oxford University Press. ISBN 0194313506

Writing

1. Marie-Christine, B., Suzanne, B. & Francoise, G. (1993). Writing. Intermediate (4th ed.). Oxford Supplementary Skills. ISBN 0 19 435405 7 Pages 20-27 and 35-41.

Reading/Comprehension

1. Tomlinson, B. & Ellis, R. (1992). Reading. Upper Intermediate. Third Impression. Oxford Supplementary Skills. ISBN 0 19 453402 2.

WHP 105: COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

Course Description

- This is an introductory course on Information and Communication Technologies.
- This course includes ICT terminologies, hardware and software components, the internet and World Wide Web, and ICT based applications.

Course Objectives

After completing this course, students will be able to:

1. Understand different terms associated with ICT
2. Identify various components of a computer system
3. Identify the various categories of software and their usage
4. Define the basic terms associated with communications and networking
5. Understand different terms associated with the Internet and World Wide Web.
6. Use various web tools including Web Browsers, E-mail clients and search utilities.
7. Use text processing, spreadsheets and presentation tools
8. Understand the enabling/pervasive features of ICT

Course Content

1. Introduction

- Basic Definitions and Concepts

2. Hardware

- Computer Systems & Components
- Storage Devices,
- Number Systems

3. Software

- Operating Systems,
- Programming and Application Software

4. Introduction to Programming

- Databases and Information Systems
- Networks
- Data Communication

5. The Internet

- Browsers and Search Engines
- Email, Collaborative Computing and Social Networking
- E-Commerce

6. IT Security and other issues

7. Project Week Review Week

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Norton, P. & McGraw-Hill. Introduction to Computers, (6th International Ed).
2. Sawyer, W. & McGraw-Hill. Using Information Technology: A Practical Introduction to Computer & Communications (6th Ed).
3. Sawyer, S.C. & Sarah, E. Computers, Communications & information: A user's introduction.
4. Alexis, L. Mathews, L. & Press, L. Fundamentals of Information Technology

WHP 106: PAKISTAN STUDIES

Course Description

- This course studies the process of governance, national development, issues arising in the modern age and posing challenges to Pakistan and to have insight into the ideological background of Pakistan.
- This course focuses on enhancing students' knowledge about history, culture and geography of Pakistan
- This course covers Pakistan's history, cultural heritage, national identity, geography, economy, and environment, as well as the challenges and opportunities faced by the country.

Course Objectives

After completing the course, students will be able to:

1. Develop vision of historical perspective, government, politics, contemporary Pakistan, ideological background of Pakistan.

Course Content

1. Historical Perspective

- Ideological rationale with special reference to Sir Syed Ahmed Khan, Allama Muhammad Iqbal and Quaid-e-Azam Muhammad Ali Jinnah.
- Factors leading to Muslim separatism
- People and Land
- Indus Civilization
- Muslim advent
- Location and geo-physical features.

2. Government and Politics in Pakistan

- Political and constitutional phases: a. 1947-58
- 1958-71
- 1971-77
- 1977-88
- 1988-99
- 1999 onward

3. Contemporary Pakistan

- Economic institutions and issues
- Society and social structure
- Ethnicity
- Foreign policy of Pakistan and challenges
- Futuristic outlook of Pakistan

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Burki, S. J. (1980). *State & Society in Pakistan*, The MacMillan Press Ltd.
2. Zaidi, S. A. (2000). *Issue in Pakistan's Economy*. Karachi: Oxford University Press.
3. Burke, S. M., & Ziring, L. (1990). *Pakistan's foreign policy: An historical analysis*. Oxford University Press, USA.
4. Mahmood, S. (2000). *Pakistan: Political roots and development, 1947-1999*. Oxford University Press.
5. Wilcox, W. A. (1972). *The Emergence of Bangladesh*, Washington: American Enterprise, Institute of Public Policy Research.
6. Mehmood, S. (n.d.). *Pakistan Kayyun Toota*. Lahore: Idara-e-Saqafat-eIslamia, Club Road.
7. Tahir, A. (1988). *Ethno-national Movements of Pakistan*. *Institute of Policy Studies, Islamabad, 1988*.

8. Ziring, L. (1980). *Enigma of Political Development*. Kent England: WmDawson & sons Ltd.
9. Zahid, A. (1980). *History & Culture of Sindh*. Karachi: Royal Book Company.
10. M. Rafique Afzal. (1980). *Political Parties in Pakistan*, Vol. I, II & III. Islamabad: National Institute of Historical and cultural Research.
11. ul Haq, N. (1993). *Making of Pakistan, the Military Perspective* (No. 81). National Institute of Historical & Cultural Research.

SECOND SEMESTER

Course No.	Title of Course	Credit Hours
WHP 107	Introduction to Safety Promotion	3(3-0)
WHP 108	English-II	3(3-0)
WHP 109	Islamic Studies/Ethics	2(2-0)
WHP 110	Fundamentals of Public Health	3(3-0)
WHP 111	Bio Statistics	3(3-0)
WHP 112	Mass Communication	3(3-0)
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WHP 107: INTRODUCTION TO SAFETY PROMOTION

Course Description

- This course introduces the student to basic fundamentals of safety in the workplace, sound environmental procedures in and around the workplace and home safety.
- It will enable students to review the basic legislations and rules and regulations, government or institution based, governing employee, employer, and public safety and assist the students in identifying personal health and safety concerns.

Course Objectives

After completing this course, students will be able to:

1. Identify health and safety concerns in the workplace, the home, and the environment
2. Interpret existing legislation on health and safety matters.
3. Gain knowledge in providing wellness coaching as well as designing, implementing, and evaluating effective health promotion strategies and programs, and managing programs in accordance with organizational policies and procedures
4. Create and implement a plan to reduce or eliminate health and safety concerns in the workplace and the surrounding environment.
5. Choose effective incentives & create a supportive wellness environment
6. Demonstrate effective use of core concepts such as employee involvement, health management, programming across all wellness dimensions, presentism, and work-life balance.
7. Apply fundamental knowledge and skills of designing, planning and evaluating a basic workplace wellness program

Course Content

1. Introduction to Health and Safety

- Wellness and Health
- Workplace Wellness
- Legislation on Health and Safety
- Strategies to promote individual and organizational well-being

2. Assessing Health Risks at Work

- Factors Influencing Health Risks
 - Workplace Need Assessment
 - Reducing and Eliminating Health risks
- 3. Designing layout for safe markets and safe businesses**
 - 4. Cost effective incentives and Supportive wellness environment**

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Kirsten.W & Karch.R.C (2001), “Global Perspectives In Workplace Health Promotion”, Jones & Bartlett. Edition 1.
2. O'Donnell.M.P (2001), “Health Promotion in the Workplace”, Delmar Cengage Learning; 3 edition. International Journal of Workplace Health Management
3. Dhillon, B.S. (2003). Engineering Safety: Fundamentals, Techniques and Applications (Series on Industrial & Systems Engineering) Paperback – Import.
4. Joseph, F. L & Daniel, A. C. (2011). Chemical Process Safety: Fundamentals with Applications (3rd Edition) [Paperback] Paperback.
5. Brauer, R. (1990). Textbook of Safety and Health for Engineers. Online ISBN 9780471750932.
6. Manuele, F.A. (2008). Textbook of Advanced Safety Management. Online ISBN 9781118840900
7. Stewart, J.H (2000). Textbook of Occupational Safety Calculations.

WHP 108: ENGLISH II (COMMUNICATION SKILLS)

Course Description

- This course aims to develop skills for effective communication and presentation using clear and appropriate English.
- The course comprises five units that focus on developing effective communication strategies, making oral presentations, understanding intonation patterns and their role in determining the meaning of a message or text, and how to present information in speech and writing.
- This course focuses on developing confidence and interpersonal skills.

Course Objectives

The objectives of this course is to:

1. Enhance the communication skills of students
2. Enable the students to meet their real life communication needs.

Course Content

1. Paragraph Writing

- Practice in writing a good,
- Unified and coherent paragraph

2. Essay Writing

- Introduction

3. CV and Job Application

- Translation skills Urdu to English

4. Study Skills

- Skimming and scanning,
- Intensive and extensive, and speed reading,
- Summary and précis writing and comprehension.

5. Academic Skills

- Letter/memo writing,
- Minutes of meetings,
- Use of library and internet

6. Presentation Skills

- Personality development (emphasis on content, style and pronunciation)

Note: documentaries to be shown for discussion and review

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

Grammar

1. Thomson, A.J. & Martinet, A.V. (1986). Practical English Grammar Exercises 2. (3rd ed). Oxford University Press. ISBN 0 19 431350 6.

Writing

1. Marie-Christine, B., Suzanne, B. & Francoise, G. (1993). Writing. Intermediate (4th ed.). Oxford Supplementary Skills. ISBN 0 19 435405 7 Pages 20-27 and 35-41.
2. Nolasco, R. (1992). Writing. Upper-Intermediate Oxford Supplementary Skills. Fourth Impression. ISBN 0 19 435406 5

Reading

1. Tomlinson, B. & Ellis, R. (1992). Reading. Upper Intermediate. Third Impression. Oxford Supplementary Skills. ISBN 0 19 453402 2.
2. Langan, J. (n.d). Reading and Study Skills.
3. Yorkey, R. (n.d). Study Skills.

WHP 109: ISLAMIC STUDIES/ETHICS

Course Description

- This course is intended to provide basic information about Islamic studies.

Course Objectives

After studying this course, students should be able to:

1. Provide Basic information about Islamic Studies
2. Enhance understanding of the students regarding Islamic Civilization
3. Improve Students skill to perform prayers and other worships
4. Enhance the skill of the students for understanding of issues related to faith and religious life.

Course Content

1. Introduction to Quranic studies

- Basic concepts of Quran
- History of Quran
- Uloom-ul -Quran

2. Study of selected text of Holy Quran

- Surah al-Baqra. Verses related to faith (verse no-284-286)
- Surah al-Hujrat. Verses related to adab al-nabi (verse no-1-18)
- Surah al-Mumanoon. Verses related to characteristics of faithful (verse no-1 11)
- Surah al-Furqan. Verses related to social ethics (verse no.63-77) 5)
- Surah al-Inam. Verses related to Ihkam (verse no-152-154)

3. Study of selected text of Holy Quran

- Surah al-Ihzab. Verses related to Adab al-Nabi (verse no.6, 21, 40, 56-58).
- Surah al-Hashar. Verses related to thinking, Day of Judgment, (verse no. 1820).
- Surah al-Saf. Verses related to Tafakar,Tadabar (verse no.1,14)

4. Seerat of Holy Prophet (SAWW) i

- Life of Muhammad bin Abdullah (before prophet hood)
- Life of holy prophet (SAWW) in Makkah
- Important lessons derived from the life of holy prophet in Makkah

5. Seerat of Holy prophet (SAWW) ii

- Life of holy prophet (SAWW) in Madina
- Important events of life Holy Prophet in Madina
- Important lessons derived from the life of Holy Prophet in Madina

6. Introduction to Sunnah

- Basic concepts of hadith
- History of hadith
- Kinds of hadith
- Uloom –ul-hadith
- Sunnah & hadith
- Legal position of Sunnah

7. Selected study from text of hadith

- Introduction to Islamic law & jurisprudence
- Basic concepts of Islamic law & jurisprudence
- History & importance of Islamic law & jurisprudence
- Sources of Islamic law & jurisprudence
- Nature of differences in Islamic law
- Islam and sectarianism

8. Islamic culture & civilization

- Basic concepts of Islamic culture & civilization
- Historical development of Islamic culture & civilization
- Characteristics of Islamic culture & civilization
- Islamic culture & civilization and contemporary issues

9. Islam & science

- Basic concepts of Islam & science
- Contributions of Muslims in the development of science
- Quran & science

10. Islamic economic system

- Basic concepts of Islamic economic system

- Means of distribution of wealth in Islamic economics
- Islamic concept of riba
- Islamic ways of trade & commerce

11. Political system of Islam

- Basic concepts of Islamic political system
- Islamic concept of sovereignty
- Basic institutions of government in Islam

12. Islamic history

- Period of Khlaft-e-rashida
- Period of Ummayyads
- Period of Abbasids

13. Social system of Islam

- Basic concepts of social system of Islam
- Elements of family
- Ethical values of Islam

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Hasan, A. (1993). "Principles of Islamic Jurisprudence" Islamic Research Institute, International Islamic University, Islamabad
2. Waliullah, M. (1982). "Muslim Jurisprudence and the Quranic Law of Crimes" Islamic Book Service

3. Bhatia, H.S. (1989). "Studies in Islamic Law, Religion and Society" Deep & Deep Publications New Delhi
4. Muhammad, H.U. (n.d) Emergence of Islam", IRI, Islamabad
5. Muhammad, H.U. (n.d) "Muslim Conduct of State"
6. Muhammad, H. U. (n.d) 'Introduction to Islam
7. Hassan, H.H. (n.d) "An Introduction to the Study of Islamic Law" leaf Publication Islamabad, Pakistan.
8. Ul-haq, M. Z. (2001). "Introduction to Al Sharia Al Islamia". Allama Iqbal Open University, Islamabad

WHP 110: FUNDAMENTALS OF PUBLIC HEALTH

Course Description

- This course is an introduction to the key concepts and practices of public health, which is the science of Preventing disease, prolonging life, and promoting health through the organized efforts of society.
- In this course, individual and population health will be explored as an evolving and multidimensional concept shaped through historical, cultural, psychosocial, economic, and environmental contexts.

Course Objectives

After completion of this course the student will be able to:

1. Define and understand concept of health
2. Identify determinants of health
3. Enumerate the indicators of health
4. Understand the concept of disease causation
5. Understand iceberg of disease phenomenon
6. Understand the levels of prevention
7. Cover basic definitions and historical background of public health

Course Content

1. Introduction

- Definition and Concept of Public Health,
- Historical aspects of Public Health,
- Changing Concepts of Public Health,
- Public Health versus Medical Care,
- Unique Features of Public Health,

2. Public Health as a System,

- Main determinants of public health such as individual characteristics and behavior,
- Socio economic and physical environment
- Definitions of common public health terms

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Schneider, M. J. (2016). *Introduction to public health*. Jones & Bartlett Publishers.
2. Turnock, B. (2012). *Public health*. Jones & Bartlett Publishers.
3. Keleher, H., & MacDougall, C. (2015). *Understanding health* (No. Ed. 4). Oxford University Press.
4. Ashton, J., & Seymour, H. (1988). *The new public health* (Vol. 1). Milton Keynes: Open University Press.
5. Baum, F. (2016). *The new public health* (No. Ed. 4). Oxford University Press.
6. Basch, P.F. *Textbook of international health*, (2ndEd.) New York, NY: Oxford University Press.
7. Brownson, R.C., Baker, B.A., Leet, T. L., & Gillespie, K. N. (2003). *Evidence-based public health*. New York, NY: Oxford University Press.
8. Detels, R., McEwen, J., Beaglehole, R., & Tanaka, H., (eds.). (2002). *Oxford textbook of public health: the practice of public health*, (4thed.) Oxford: Oxford University Press.

WHP 111: BIO-STATISTICS

Course Description

- The course starts with describing foundational concepts of biostatistics.
- In this course, students will be introduced how to apply basic theoretical concepts of biostatistics in health science, epidemiology, and public health. Knowledge about measurement scales, types of variables and data along with various statistical methods for summarizing and presenting different types of data will be provided.

Course Objectives

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

1. Select and apply appropriate statistical tests to analyze common biological and health data.
2. Recognize and give examples of different types of data arising in public health and clinical studies.
3. Produce appropriate statistical graphs and descriptive statistics.
4. Interpret the statistical output from common statistical tests.
5. Calculate standard normal scores and resulting probabilities.
6. Select an appropriate test for comparing two populations on a continuous measure.
7. Choose an appropriate method for comparing proportions between two groups.
8. Design methodology for research and could draw inferences from any type of research data.

Course Content (Bio-statistics 1)

1. Introduction

- Definition
- Importance of Statistics in nutrition and dietetics

2. Data

- Different types of data and variables
- Classification and Tabulation of data,
- Frequency distribution,
- Stem-and-Leaf diagram,
- Graphical representation of data Histogram,

- Frequency polygon,
- Frequency curve.
- 3. Measure of Central tendency,**
 - Definition
 - Arithmetic mean,
 - Geometric mean,
 - Harmonic mean,
 - Median quantiles
 - Mode in grouped and un-grouped data.
- 4. Measure of Dispersion**
 - Definition
 - Range,
 - Quartile deviation,
 - Mean deviation,
 - Standard deviation
 - Variance,
 - Coefficient of variation.

Content-Practical

1. Frequency distribution
2. Stem-and-leaf diagram
3. Various types of graphs
4. Mean,
5. Geometric mean harmonic mean,
6. Median,
7. Quartiles deviation,
8. Mean deviation.
9. Standard deviation,
10. Variance,
11. Coefficient of variation,
12. Skewness and kenosis

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Chernick, M. R. & Friis, R. H. (2003). Introductory Biostatistics for the Health Sciences: Modern Applications Including Bootstrap (Wiley Series in Probability and Statistics) Hardcover.
2. Muhammad, S. & Kamal, S. Introduction to Statistical Theory Part- I, (latest Ed.).
3. Muhammad, F. Statistical Methods and Data Analysis.
4. Crashaw, J. & Chambers, J. (1994). A. Concise Course in A. Level Statistic with world examples.
5. Fran, II, Dietrich-II. & Keans, T. J. (1986). Basic Statistics an Inferential Approach (2nd ed)

Course Content (bio-statistics 2)

1. Sampling

- Sampling Probability
- non-Probability Sampling,

2. Sampling types

- Simple random sampling
- stratified random sampling
- Systematic sampling error,

3. Sampling distribution of mean and difference between two means.

4. Interference Theory

- Estimation and testing of hypothesis,
- Type—I and type-II error,
- Testing of hypothesis about mean and difference between two means using Z-test and t-test, Paired t-test,
- Test of association of attributes using χ^2 (chi-square) Testing hypothesis about variance.

Content Practical

- Sampling random sampling
- Stratified random sampling.
- Sampling distribution of mean
- Testing of hypotheses regarding population mean
- Testing of hypotheses about the difference between population means
- Chi-square test
- Testing of Correlation Coefficient
- Fitting of simple linear regression
- One-way ANOVA
- Two-way ANOVA

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Muhammad, S. & Kamal, S. Introduction to Statistical Theory Part-II. (latest Ed).

2. Muhammad, F. Statistical Methods and Data Analysis.
3. Steal, R.G.D. & Tarric, J.H. (1980). Principles and Procedures of Statistics A Bio-material approach, (2nd Ed).
4. Gomez, K.A. & Gomez, A.A. (1980). Statistical Procedures for Agricultural Research (2nd Ed).

WHP 112: MASS COMMUNICATION

Course Description

- This course is an examination of the effect and impact of mass media on contemporary life and society.
- The course covers both the historical evolution of media as well as contemporary developments and issues.
- Areas of coverage include, newspapers and journalism, magazine and book publishing, radio and television broadcasting, motion pictures, music recording, Internet and social media, cable and satellite communication, advertising and public relations; media law and ethics

Course Objectives

Upon completion of this course, students should be able to:

1. Critically analyze and discuss media message content;
2. Identify economic and cultural influences affecting mass media messages;
3. Discuss the juxtaposition of factual information and entertainment demands on media content in light of economic and technological imperatives;
4. Understand media history and technology and their effects on contemporary messages;
5. Develop an increased understanding and awareness of media influences on perceptions of multiculturalism and diversity;
6. Understand the evolving roles of social media messages on politics, behavior, and culture; and
7. Understand the effects of globalization and consolidation on the media.

Course Content

1 Introduction

- Mass Communication, concept and process of Communication, oral vs written Communication
- Two step flow of Communication, role of opinion leader
- Dynamic of Communication – Different meanings of Communication

2 Information and Journalism

- Functions, news function, education function, opinion for motives and entertainment function

3 Mass Media

- Components, functions and effects
- Mass media in Pakistan, size and dispersion
- Role of mass media in national development, prospects and problems

4 Public Relations

- Definition, purpose and scope, ethics
- Public relations in Pakistan, duties of PRO
- Public relations procedures and process

5 Press laws in Pakistan

- Press laws in Pakistan, concepts of press freedom and responsibility
- Ethics of journalism

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Sessional Work

The sessional work will be a combination of written assignments, class quizzes, presentations, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. DeFleur, M. L., & DeFleur, M. H. (2016). *Mass communication theories: Explaining origins, processes, and effects*. Routledge.
2. McQuail, D., & Windahl, S. (2015). *Communication models for the study of mass communications*. Routledge.
3. Baran Stanley J (2000). *Mass Communication Theory: Foundations, Ferment, and Future*. London: Wadsworth Publishing Company.

4. Day, Louis. (2005). *Ethics in Media Communications: Cases and Controversies*. London: Wardworths Publishing Company.
5. Pember Don. (2004). *Mass Media Law*. New York: Mcgraw-Hill.
6. Wileox Dennis L. (2004). *Public Relations Writings and Media Techniques*. London: Allyn and Bacon.

THIRD SEMESTER

Course No.	Title of Course	Credit Hours
WHP 201	Basic Epidemiology	3(3-0)
WHP 202	Introduction and Principles of Risk Management	3(3-0)
WHP 203	English-III	3(3-0)
WHP 204	Sociology of Health and Illness	3(3-0)
WHP 205	Principles of Management	3(3-0)
WHP 206	Organizational Behavior	3(3-0)
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WHP 201: BASIC EPIDEMIOLOGY

Course Description

- This course will focus on introducing concepts of epidemiology, using principles and methods of both descriptive and analytical epidemiology to address public health problems and issues.
- Emphasis will be placed on examining the trend and patterns of major public health epidemic and endemic infectious and chronic diseases and environmental health and emerging diseases in populations and communities using epidemiological study designs.

Course Objectives

After studying this course, students should be able to:

1. Outline epidemiological measures of disease occurrence, calculate basic measures and describe patterns of disease occurrence.
2. Demonstrate an understanding of routine sources of data used in descriptive epidemiology, and appreciate their strengths and limitations accordingly.
3. Differentiate epidemiological study designs, recognize the most appropriate circumstances in which to use each design, and describe the measures of disease occurrence that can be generated using each design.
4. Recognize potential threats to correctly interpreting results from epidemiological studies, and identify those most relevant to each study design.
5. Distinguish the difference between association and causation, and appreciate relevant issues in inferring causation from observational designs.
6. Demonstrated ability to review and critically appraise observational studies.

Course Content

1. History of Epidemiology

- Natural history of disease and levels of prevention
- Distribution and determinants of disease
- Measures of disease frequency
- Overview of epidemiologic study designs
- Measures of association

2. Types of studies

- Cross sectional studies
 - Case control studies
 - Cohort studies
 - Experimental and Intervention Studies
 - Population dynamics
- 2. Introduction to surveillance**
 - Investigation of an outbreak
 - Screening for disease
 - 3. Ethics in epidemiologic practice**
 - 4. Critical appraisal of epidemiologic literature.**

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Carneiro, I. & Howard, N. (2011). Introduction to Epidemiology (Understanding Public Health) Paperback. 2nd Ed. ISBN-10: 0335244610.
2. Rothman, K. J. (2012). Epidemiology: An Introduction Paperback.
3. Bonita, R., Beaglehole, R. & Kjellstrom, T. (2006). Basic epidemiology, World Health Organization. (2nd Ed).

WHP 202: Introduction and Principles of Risk Management

Course Description

- This course covers risk assessment from an occupational risk management perspective with an emphasis on decision tree methodologies and their potential to facilitate the analysis and identification of optimum remedial risk management alternatives.
- Students will understand the use and limitations of risk assessment in establishing exposure standards, acceptable concentrations, and the environmental criteria for hazardous substances that present a risk of health effects and the suitability of risk assessment for such purposes.

Course Objectives

After studying this course, student should be able to:

1. Describe general principles and concepts of enterprise risk management
2. Explain basic legal concepts associated with health care risk management
3. Describe key structural elements of a risk management program
4. List the steps in the risk management process
5. Explain risk exposures related to documentation and the medical record
6. Describe the concept of risk financing, insurance and claims administration
7. Explain risk exposures associated with occupational health, safety and the environment
8. Analyze a comprehensive risk management and patient safety program

Course Content

1. Introduction

- Risk management understanding and assessments
- Types of Hazards and Risks
- Risk Assessment Process

2. Identification of Organizational Risks and Ethics

- Clinical laboratory and radiation risk management
- Hospital waste risks

3. Development of a Risk Management Program

- The Process of Professional Regulation

4. Risk Financing Insurance

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Robson, M. G. & Toscano, W. A. (Ed.) (2007). Risk Assessment for Environmental Health Paperback. ISBN-10: 1118424069.
2. Carroll, R. (Ed.). (2009). Risk management handbook for health care organizations (Vol. 30). John Wiley & Sons.

WHP 203: ENGLISH III (TECHNICAL WRITING AND PRESENTATION SKILLS)

Course Description

- This course focuses on critically reading and evaluation of various forms and types of texts including novels, poetry, informational texts and visual texts.
- This course will majorly emphasize on the expressions of ideas and effective reading and writing skills.

Course Objectives

The objectives of this course is to enable the students to:

1. Enhance their language skills
2. Develop critical thinking

Course Content

1. Essay writing

- Descriptive, narrative, discursive, argumentative

2. Academic writing

- How to write a proposal for research paper/term paper?
- How to write a research paper/term paper (emphasis on style, content, language, form, clarity, consistency)

3. Technical Report writing

4. Progress report writing

5. Presentation skills

Note: Extensive reading is required for vocabulary building

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. White, R. (1992). *Writing. Advanced Oxford Supplementary Skills. Third Impression.* ISBN 0 19 435407 3.
2. Langan, J. (2004). *College Writing Skills.* McGraw-Hill Higher Education.
3. Kirszner, L. G. & Mandell, S. R. *Patterns of College Writing* (4th edition).
4. Neulib, J., Cain, K. S., Ruffus, S. & Scharon, M. (Eds). *The Mercury Reader.* A Custom Publication. Compiled by northern Illinois University.

WHP 204: SOCIOLOGY OF HEALTH AND ILLNESS

Course Description

- This course introduces the student to the subject of Sociology of health, illness, and healthcare and its applicability to the healthcare organizations.
- Students will discuss how social, cultural, political, and economical factors influence the dimensions of health, illness, mortality, and social policies. Area of emphasis will include the structural aspects of health and healthcare, health inequity, professional social factors in health, interaction between health care provider and patient, alternative medicine, ethical issues and health care financing, how an illness and disability are distributed among population, organization of health care delivery system and associated patient outcomes.
- Students will also investigate the efficiency and effectiveness of health care settings in using technology.

Course Objectives

After studying this course, student should be able to:

1. Discuss the social contexts of wellness and illness
2. Explain the patient's perspective on the experience of illness including meaning making and interaction with care providers
3. Examine the social-historical transformation of the medical system in the U.S., including the changing role of physicians and other health care providers
4. Interpret visual and written depictions of indicators and trends in population health over time
5. Identify the socio-cultural aspects of health and illness, particularly as relating to the definitions of health, illness behavior and social epidemiology
6. Investigate the social causes of disease and illness related to disparities due to social stratification and unequal access
7. Describe the historical role of women in the medical system as patients, practitioners and health care providers
8. Differentiate the current ethical issues and debates about new medical technologies and their impact on doctor-patient relationships and on access to health care

Course Content

1. Introduction

- Evolution of Health & Healing,
- Body, Mind, Illness and Environment

2. Theories, research and debates of medical sociology.

3. Social, environmental and occupational factors in health and illness;

- The meaning of health and illness from the patient's perspective;
- The historical transformation of the health professions and the health work force;

4. The social and cultural factors surrounding the creation and labeling of diseases;

- Disparities in health, access to healthcare, and the quality of healthcare received;

5. Organizational and ethical issues in medicine including rising costs and medical technology; and health care reform.

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Reading

1. Conrad, P. (2005). *Sociology of Health & Illness Paperback* (7th Edition). ISBN-10: 0716709988.
2. Weitz, R. (2012). *The Sociology of Health, Illness, and Health Care: A Critical Approach Hardcover*. (6th Ed). ISBN-10: 1111828792.
3. Nettleton, S. (2006). *The Sociology of Health and Illness Paperback*.

4. Bird, C. E., Conrad, P. & Fremont, A.E. (2000). "Medical Sociology at the Millennium." Pp. 1-10 in *Handbook of Medical Sociology*, (5th ed) edited by Bird, C.E., Conrad, P. & Fremont, A. Upper Saddle River, NJ: Prentice-Hall.
5. Link, B., & Phelan, J. (2010). "Social Conditions as Fundamental Causes of Health Inequalities." Pp. 3-17 in *Handbook of Medical Sociology*, (6th ed) edited by Bird, C.E., Conrad, P, Fremont, A.M. & Timmermans, S. Nashville: Vanderbilt University Press
6. Shim, J. (2005). "Constructing 'Race' Across the Science-Lay Divide: Racial Formation in the Epidemiology and Experience of Cardiovascular Disease." *Social Studies of Science* 35: 405-436.
7. Farooq, S. *Medical Sociology*. Azeem Academy Karachi

WHP 205: PRINCIPLES OF MANAGEMENT

Course Description

- This will adequately be trained in managerial skills to perform effectively in leadership roles in health care settings.
- This course will strengthen their analytical and critical thinking skills. The program prepares the students for a mid-level to upper-level management position in private and public sectors.

Course Objectives

Upon successful completion of this course the student will be able to:

1. Understand different types of healthcare organizations and identify contemporary issues faced by them.
2. State responsibilities of health care managers to develop vision, mission, goals, policies and procedures.
3. Compare marketing strategies and critique tools for recruitment, retention of staff, performance evaluation and staff development.
4. Discuss patient rights and responsibilities and analyze factors contributing to patient satisfaction.
5. Effectively manage and modify their managerial skills in different health care settings.

Course Content

1. Introduction: Management

- What is management?
- What do managers do?
- Function of management
- Skills of a manager
- Roles of a manager
- What is an organization?
- Management History
- Classical Approach
- Scientific Approach

2. General Administrative Theory

- Quantitative Approach
- Research Article Discussion
- Behavioral Approach
- Contemporary Approach
- 3. Organizational Culture and Environment**
- Organizational culture
- Organizational Environment
- 4. Managers as Decision Makers**
- Decision Making Process
- Managers making decisions
- Types of decisions and decision making conditions
- Decision making styles
- Decision making biases and errors
- 5. Foundations of Planning**
- What and why of planning
- Goals and plans
- Types of goals
- Types of plans
- 6. Motivating Employees**
- Early theories of Motivation
- Maslow's Hierarchy of needs theory
- McGregor's Theory X and Theory Y
- Herzberg's Two Factor Theory
- McClelland's Three Needs Theory
- Case Discussion
- Motivating Employees
- Contemporary Theories of Motivation
- Goal-Setting Theory
- Reinforcement Theory

- Job design Theory
- Equity Theory
- Expectancy Theory

7. Managers as Leaders

- Who are leaders?
- What is leadership?
- Early leadership theories
- Trait theories
- Behavioral theories
- Article Discussion

8. Introduction to Controlling

- Control process
- Types of control
- Feed forward
- Concurrent
- Feed back

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

Capacity Development

1. Carlos, L. & Thomas, T. (2003). Ownership, Leadership and Transformation: Can we do better for Capacity Development?

2. Morgan. (2005). The idea and practice of systems thinking and their relevance for capacity development
3. Sida, (2005). Manual for Capacity Development,

Change Management

1. Kotter, J. (2007). Leading change: Why transformation efforts fail. *Harvard business review*, 86, 97-103.
2. Pickton, David W. & Wright, S. (1998). What's SWOT in Strategic Analysis? *Strategic Change* 1998, no. 7, pp 101-109
3. UNDP. (2006). Institutional reform and change management: managing change in public sector organization

General Management and Organizational Development

1. Binns, J. (2008): The Ethics of Relational Leading: Gender Matters. *Gender, Work and Organization*, 15 (6): 600-620
2. Hatch, Mary Jo (2006), *Organization Theory*, Oxford University Press, USA, Selected pages
3. Kouzes, J. and P.R. Mico (1979), Domain theory: An introduction to organisational behavior in human service organizations, *Journal of Applied Behavioral Science*, Oct 1979, 15:449-469, (21 p)
4. Mintzberg, H. (1989). *Mintzberg on management*, The Free Press, New York, 93-130 plus selected pages

WHP 206: ORGANIZATIONAL BEHAVIOR

Course Description

- Effective management of human resources within healthcare organizations requires an understanding of various organizational behaviors and processes. With a better understanding of behavioral processes in terms of individuals' perceptions, motivations, and attitudes,
- It will enable student to understand themselves better, and also adopt appropriate managerial policies and leadership styles to increase their effectiveness.
- The aim of this course is to explain the way people behave and why they behave in such ways in the organizational setting.
- This course focuses on the organizational processes and theoretical constructs related to organizational behavior.

Course Objectives

Upon completion of this course, student should be able to:

1. Review the major organizational behavior concepts, theories, and behaviors in the organizational setting;
2. Explain how individual and team behaviors influence the workplace performance, structure and systems;
3. Examine the different motivations, decision making process, conflicts and negotiation process on the way people work;
4. Apply theories and concepts when analyzing case studies of organizational behaviors.

Course Content

1. **Fundamentals of Organizational Behavior,**
 - Behavioral Science and Organizational Behavior,
 - Individual Behavior in Organizations,
2. **Personality, perception and attitudes,**
 - Learning and reinforcement,
 - Motivation,
 - Group Behavior in Organizations,
 - Group dimensions in organizations,

- Group dynamics, Leadership,
- 3. Organizational Structure and Organizational Behavior,**
- Organizational design,
- Job design, Stress and work,
- Organizational Processes,
- 4. The decision-making process,**
- The communication process,
- Performance appraisal process,
- 5. Special Issues in Organizational Behavior,**
- Management of conflict and change,
- Organizational development

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Schermerhorn, J. R. (2013). Organizational behavior. (12th ed.). Hoboken, N.J.: Wiley. ISBN-13 9781118379066 (eBook); ISBN: 9781118092316 (print edition).
2. George, J.M. & Jones, G.R. (2011). Understanding and Managing Organizational Behavior (6th Ed.), NY: Prentice Hall.
3. Robbins, S.P. & Judge, T.A. (2011). Essentials of Organizational Behavior Plus My ManagementLab with Pearson eText. NY: Prentice Hall.
4. Griffin, R.W. & Moorhead, G. (2009). Organizational Behavior: Managing People and Organizations, South-Western College.

FOURTH SEMESTER

Course No.	Title of Course	Credit Hours
WHP 207	Ergonomics	3(3-0)
WHP 208	Workplace Health Promotion	3(3-0)
WHP 209	English-IV	3(3-0)
WHP 210	Road Safety and Injury Prevention	3(3-0)
WHP 211	Disaster Management	3(3-0)
WHP 212	Principles of Psychology	3(3-0)
		18

WHP 207: INTRODUCTION TO ERGONOMICS

Course Description

- The aim of this course is to let students understand the basic ergonomics and to enable them to understand that how certain postures and muscular position affect health

Course Objectives

Upon completing this course, students will be able to:

1. Increase awareness of the need for and role of ergonomics in occupational health.
2. Obtain basic knowledge in the application of ergonomic principles to design of industrial workplaces and the prevention of occupational injuries.
3. Understand the breadth and scope of occupational ergonomics

Course Content

1. Introduction to Ergonomics,

- Definition and History of Ergonomics,

2. Introduction to Systems Design and Task Analysis Definitions of ergonomics and its history

- Ergonomics in systems design, and steps to performing a task analysis.

3. Muscle Use and Anthropometry and Workspace Design

- Use of anthropometric data in ergonomics.
- Principles of workspace design, including seated work, standing work, work reaches and
- Working heights, the office environment and visual work.

4. Activity-related soft tissue disorders (ASTDs)

- Definition of astds, examples of astds accepted by WCB,
- how injuries are adjudicated,
- Pathology of disorders,
- work-relatedness,
- psychosocial factors,
- Risk factors (repetition, awkward posture, forceful exertions, hand-arm vibration, etc.)
- Defined, and guidelines in literature for risk factors.

5. Analysis of Risk of ASTDs in the Workplace Assessing a workplace for risk of ASTDs

- Various tools and techniques available qualitative to quantitative.
- Developing solutions to jobs with astd risks.
- Psychosocial and Organizational Aspects of Work Discussion of the influence of work organization and psychosocial factors such as control over work, supervisory support and skill discretion in the workplace

6. Analysis of Risk for Back Injuries in the workplace

- Mechanism of injury for back and shoulder overexertion injuries,
- compensation for such injuries,
- Major risk factors (eg. manual materials handling, awkward postures, prolonged standing and sitting, whole body vibration, etc).

7. Assessing the Risk of Back Injuries in the Workplace Assessing a workplace for risk of overexertion injuries

- Tools and techniques for quantifying injury risk (NIOSH, Snook tables, Mitel tables) - advantages and disadvantages.
- Developing risk control solutions for overexertion injury risk.

8. Skilled Work, Control-Display Design and Mental Activity;

- Shiftwork Stages of information processing,
- skilled behavior,
- Memory, attention, and stereotypes.

9. Analysis of information processing demands and minimizing cognitive overload and under-load

- Design of systems considering mental workload.
- Design of controls and displays, including coding and inspection.

10. Ergonomics Programs

- How to develop an ergonomics program?
- Overview of WCB Ergonomics Regulations.

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Bridger, R.S. (2009). Introduction to Ergonomics, Third Edition. CRC Press.
2. Kroemer, K. H. (2008). *Fitting the human: Introduction to ergonomics*. CRC Press.
3. Konz, S. & Johnson, S. Work Design: Occupational Ergonomics (Paperback).

WHP 208: WORKPLACE HEALTH PROMOTION

Course Description

- Workplace health promotion (WHP) is the combined efforts of employers, employees and society to improve the health and wellbeing of people at work. This is achieved through a combination of: improving the work organization and working environment; promoting the participation of workers in the whole process of WHP; enabling healthy choices, and encouraging personal development (European Agency for Safety and Health at Work 2015).
- The World Health Organization recently declared that the workplace is a priority setting for health promotion, as many chronic diseases are related to lifestyle, and time at work represents a large percentage of workers waking hours.

Course Objectives

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

1. Appraise the origins and concepts of workplace wellness
2. Develop a case for implementing workplace wellness programs
3. Build a sound program infrastructure, implement effective program promotion strategies & evaluate program outcomes.
4. Choose effective incentives & create a supportive wellness environment
5. Demonstrate effective use of core concepts such as employee involvement, changing the corporate culture, program integration, return on investment, health management, programming across all wellness dimensions, presentism, and work-life balance.
6. Apply fundamental knowledge and skills of designing, planning and evaluating a basic workplace wellness program
7. Conduct and report on a workplace needs assessment
8. Prepare a proposal to implement a sustainable, comprehensive, and integrated workplace health and wellness program.

Course Content

1. **Origin and concepts of Workplace Wellness**
 - Infrastructure programs for Workplace Wellness

2. Workplace needs Assessment

- Concepts of Employee involvement
- Designing Workplace Wellness Programs

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Kirsten.W & Karch.R.C (2001), “Global Perspectives In Workplace Health Promotion”, Jones & Bartlett. Edition 1.
2. O'Donnell, M. P. (2001), “Health Promotion in the Workplace”, Delmar Cengage Learning; 3 edition.
3. International Journal of Workplace Health Management
4. American Journal of Health Promotion.

WHP 209: ENGLISH-IV (ACADEMIC WRITING)

Course Description

- The skills taught in this Specialization will empower students to succeed in any college-level course or professional field.
- Students will learn to conduct rigorous academic research and to express their ideas clearly in an academic format.

Course Objectives

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

1. Identify the correct verb tenses to use - write more effectively in English
2. Create effective thesis statements for your essays - plan and write compare/contrast, cause/effect, and argument essays
3. Write well-developed body paragraphs
4. Plan and write a more sophisticated argument essay
5. Choose appropriate research topics for college classes
6. Write detailed outlines for research papers - find source material for research papers

Course Content

1. **Principles of Academic Writing**
2. **Conventions of Academic Writing**
3. **Getting Started with easy writing**
 - Planning the Writing
 - Reading - Literature review
 - Managing the Sources
 - Summarizing and Paraphrasing
 - References and Quotations
 - Combining Sources
 - Organizing Paragraphs
 - Introduction and Discussion/Conclusion
 - Writing about Methodology and Results
 - Abstract and Title

- Elements of Writing
- Visual information
- Actual writing process
- 4. Advanced Writing**
- 5. Introduction to research for easy writing**
- 6. Project: Writing a research paper.**

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Bailey. S. (2015). *Academic Writing : A Handbook for International Students*. London and New York: Routledge.
2. Craswell, G. (2004). *Writing for Academic Success*. Sage Publications.
3. Murray, N. (2012). *Writing Essays in English Language and Linguistics*, Cambridge University Press.
4. Creme, P. and M. Lea. (2008). *Writing at University: A guide for students*. Open University Press.

WHP 210: ROAD SAFETY AND INJURY PREVENTION

Course Description

- This course aims to provide basic understanding to students on the road safety and injury prevention concepts and principles that are used to prevent road traffic crashes.

Course Objectives

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

1. Understand the concepts and types of C.Ds and road injuries
2. Identify the major risks factors for RTCs
3. Recognize road traffic crashes(RTCs) as a major public health and development challenge
4. Use different approaches used in road safety to prevent RTCs.

Course Content

1. Non-communicable diseases- Injuries

2. Unintentional and intentional- Injuries

3. Road traffic crashes

- Definition
- Difference between accident and crash
- RTC- global public health issue & development challenge
- RTC- Local perceptive
- RTC- Risk factors
- Vulnerable Road Users

2- Road Safety and Injury Prevention

- Introduction to Road Safety and injury prevention
- Sweden's Vision Zero
- The Safe System Approach
- Global Plan for Decade of Action for road safety
- Global Performance Targets
- 5 pillars of road safety
 - Road safety management
 - Safer roads and mobility

- Safer vehicles
- Safer road users
- Post-crash response
- Data Sources for Road Traffic Crashes, Injuries & Fatalities

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. WHO. (2018). Global status report on road safety.
2. World status report on road safety, (2004). CHAPTER 3 Road traffic Crashes-Risk factors
3. World health organization management of non-communicable diseases, disability, violence and injury prevention (nvi).
4. Pedestrian safety: a road safety manual for decision-makers and practitioners.
5. FIA. (2009). Seat-belts and child restraints: a road safety manual for decision-makers and practitioners London, FIA Foundation for the Automobile and Society.
6. WHO. (2007). Drinking and Driving: a road safety manual for decision-makers and practitioners. Geneva, Global Road Safety Partnership.
7. WHO. (2016). Drug use and road safety: a policy brief. Geneva, Switzerland, World Health Organization.
8. Zero Road Deaths and Serious Injuries Leading a Paradigm Shift to a Safe System.
9. Belin, Tillgren & Vedung (2012). Vision Zero – A road safety policy innovation, International Journal of Injury Control and Safety Promotion, 19.

WHP 211: DISASTER MANAGEMENT

Course Description

- This course provides an introduction to the historical development and evolution of disaster and emergency management.
- It addresses the roles and responsibilities of local, regional, and national agencies, as well as interagency coordination and collaboration.
- The course will focus on the planning, preparedness, response, and recovery phases of disaster and emergency management.

Course Objectives

After studying this course, students should be able to:

1. Define basic Disaster Concepts
2. Plan for disaster management
3. Apply post disaster rehabilitation
4. Evaluate disaster's effects on economy and health
5. Recognize basic principles of public health as they relate to disaster management.
6. Apply critical thinking and decision making skills for given disaster scenarios.
7. Identify and use appropriate concepts, theories, and principles towards the development of disaster preparedness and mitigation plans.

Course Content

1. Definition, Concept, Objectives

- Concept of Disaster
- Types of Disaster
- Elements at Risk in Disaster
- Risk Communications
- Interdisciplinary Disaster Planning

2. Elements and Significance of Disaster Management

- Aspects of Disaster Management, Response, Preparedness
- Disaster Management Cycle
- Disaster preparedness
- Mitigation, Relief, Rescue, Recovery and Rehabilitation

- Community Level Preparedness
- Disaster Mitigation and Post-Event Response
- Monitoring and Evaluation of Recovery Efforts

3. Disaster Management in Health Sectors

- Effect of Disaster on Health
- Role of Public Health in Disaster
- Health Education for Disaster Safety
- Public Health Review
- Epidemics
- Mental Health Challenges of a Disaster
- Environmental Health Degradation

4. Legislation, Policy and Institutions of Disaster Management in Pakistan

- Role of PDMA, NDMA in Managing Disaster
- Policy Development in Disaster Management

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

- 1 Landesman, L. (2011). *Public Health Management of Disasters: The Practice Guide*. (3rd Ed). eISBN: 978-0-87553-263-9, Print ISBN:978-0-87553-004-8
- 2 Hunter, N. (2009). *The Law of Emergencies: Public Health and Disaster Management* Hardcover.

- 3 Landesman, L. Y. (2011). Public Health Management of Disasters: The Practice Guide Paperback.
- 4 Kapur, G. R. & mith, J. P. (2010). Emergency Public Health: Preparedness And Response.
- 5 Coppola, D. P. (2011). Introduction to International Disaster Management.
- 6 Narayan, B. Disaster Management APH
- 7 Singh, S. R. Disaster Management APH

WHP 212: PRINCIPLES OF PSYCHOLOGY

Course Description

- This course focuses on the basic concepts of psychology.
- This course surveys the basic concepts of psychology.
- This course covers the scientific study of behavior, behavioral research methods and analysis, and theoretical interpretations.
- This course includes topics that cover physiological mechanisms, sensation/perception, motivation, learning, personality, psychopathology, therapy, and social psychology.

Course Objectives

After studying this course, students should be able to:

1. Identify the major parts of the nervous system including the brain and explain how they reciprocally influence emotion, behavior, and mental processes.
2. Explain how people change physically, mentally, emotionally, and socially over the course of the life span using the major concepts of development
3. Differentiate between sensation and perception; articulate the major sensory pathways and how/where perceptual modifications can/does occur.
4. Explain how organisms learn through classical conditioning, operant conditioning, and observational learning.
5. Explain how people think using concepts, solving problems, and making judgments;
6. Identify the major theoretical perspectives of personality and articulate their similarities and differences
7. Differentiate between abnormal and normal behavior; identify the symptoms of major psychological disorders and explain what roles biological, psychological, and sociocultural factors play in causing these disorders.

Course Content

1. Introduction

- The Scope of Psychology
- The Functions of the Brain
- On Some General Conditions of Brain-Activity.

2. Theory

- The Automaton-Theory
- The Mind-Stuff Theory

3. Methods

- The Methods and Snares of Psychology
- The Relations of Minds to Other Things.

4. The Stream of Thought.

- The Consciousness of Self.
- Attention.
- Conception.
- Discrimination and Comparison.
- Association.

5. The Perception of Time.

- Memory.
- Sensation.

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. James, W. (2018). The Principles of Psychology Volume-I 2018 published by Creative Media Partners, LLC.
2. Taylor. (2005) - Health Psychology – 5th Edition – McGraw-Hill
3. Balim, A. Tracy A. Revenson. (2001) – Handbook of Health Psychology

4. Jess, F., & Brannon, L. – Introduction to Behavior and Health
5. Flexner, W. (2005). Principles of Psychology 1st Edition.

FIFTH SEMESTER

Course No.	Title of Course	Credit Hours
WHP 301	Policy, Laws and Regulations in Occupational Safety & Health (OSH)	3(3-0)
WHP 302	Emergency Preparedness, Rescue and Response	3(3-0)
WHP 303	Project Planning & Management	3(3-0)
WHP 304	Concepts of Health Education and Promotion	3(3-0)
WHP 305	Trauma Management	3(3-0)
WHP 306	Medical Anthropology	3(3-0)
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WHP 301: POLICY, LAWS AND REGULATIONS IN OCCUPATIONAL SAFETY & HEALTH (OSH)

Course Description

- This course presents an overview of Occupational policymaking.
- The course will examine different types of Occupational health policy, policy development processes and theories that underpin them. Interest groups and the challenges they pose to decision-making processes will be discussed.
- The social and political impacts of health policy will be explored, as well as the jurisdictional responsibilities held by different levels of government for health policies.

Course Objectives

Upon completion, students will be able to:

1. Develop an understanding of health policy as a key dynamic element of the determinants of health, with effects on the health of populations and societies.
2. Understand the policies, laws and regulations in occupational health and safety.
3. Explain the role of government and their agencies, NGOs and the community in the development and implementation of health policy
4. Understand the importance of OSH policies, laws and regulations
5. Understand the guiding principles of OSH
6. Understand OSH laws in Pakistan and worldwide

Course Content

1. Introduction

- Scope and Importance of Occupational Policies, Laws and Regulations
- Important Terms
- Subjects of Application
- Adjustments for Victims

2. Principles for Guaranteeing Occupational Safety and Health

- Rights and obligations of workers
- Rights and obligations of employers
- Rights and Obligations of organizations, social organizations and its members
- Rights and responsibilities of trade unions

- Rights and responsibilities of establishments trade unions
- Prohibited Acts
- 3. Occupational Health and Safety Laws and Regulations**
 - Occupational Health and Safety Laws Worldwide
 - Occupational Health and Safety Laws in Pakistan
 - Pakistan Occupational Health and Safety Act 2018
 - The Punjab Occupational Safety and Health Act 2019
- 4. Law and Governance**
- 5. History of Occupational Safety and Health Policy**
- 6. Policy Advocacy Through Argument**
- 7. Standards and the Occupational Safety and Health Act**
- 8. Enforcement and the Occupational Safety and Health Act**
- 9. International Policy**
- 10. Workers' Compensation and Work as an Economic Activity**

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Myers, M. L. (2015). Occupational Safety and Health Policy. ISBN: 978-0-87553-271-4 eISBN (PDF): 978-0-87553-272-1 <https://doi.org/10.2105/9780875532714>
2. Teitelbaum, J. B. & Wilensky, S.E. (2011). Essentials of Health Policy and Law. Jones & Bartlett Learning, LLC.

WHP 302: EMERGENCY PREPAREDNESS, RESCUE AND RESPONSE

Course Description

- This course addresses the roles and responsibilities of local, regional, and national agencies, as well as interagency coordination and collaboration.
- The course will focus on the planning, preparedness, response, and recovery phases of disaster and emergency management.
- Legal requirement, planning formats, and response procedures are presented.
- Special focus community risk assessment: hazard analysis, vulnerability assessment, and community response capability assessment.

Course Objectives

Upon completing this course, students will be able to:

1. Demonstrate the capability to implement Emergency Planning Concepts and Metrics
2. Develop and evaluate the components of a Hazard Vulnerability Analysis and Risk Assessment
3. Develop and evaluate the components of an Emergency Operations Plans and Continuity of Operations Plans
4. Demonstrate the capability to implement an Incident Command System
5. Demonstrate the capability to implement Exercises

Course Content

- 1. Defining Hazards and Disasters**
 - Distinguishing an emergency from a disaster
 - Background to Preparedness and Response
 - How Preparedness Influences Disaster Response
 - Defining Preparedness: Are We Prepared?
- 2. Creating Reality Based Plans and Planning**
 - Household & Neighborhood Planning
 - Organizational and Community Preparedness
 - CPG-101 Background and purpose
- 3. Hazard Analysis**

- The Organizational Challenge of Disaster Response
- Individual & Small Group Behavior during Disaster
- Role of the Family; Stereotypical Images; Panic/Disaster Syndrome; Mediarole
- Approaches to Disaster Response:
- 4. Government, National Incident Management System, Incident Command System**
- 5. Organizational Behavior during Disasters**
 - What is Effective Organizational (Disaster) Response?
 - General Issues: How do you measure effectiveness?
 - Disaster Issues: How do you measure effective disaster response?
 - Initial Planning for Disaster Exercise
- 6. Response Issues and Topics**
 - Communication Failures
 - Role Conflict/Abandonment
 - Convergence
 - Search and Rescue
 - Search and Recovery
 - A special look at the Indian Tsunami and Hurricane Katrina Emergency and
 - Temporary Shelter
- 7. Terrorism and Disaster Response**

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Fagel, M. J. (2013). *Crisis Management and Emergency Planning: Preparing for Today's Challenges*.
2. Kapur, G. B. & Smith, J. P. (2010). *Emergency Public Health: Preparedness and Response*.

WHP 303: PROJECT PLANNING & MANAGEMENT

Course Description

- This course addresses the process of program planning, development, and fundamental evaluation principles, emphasizing occupational health promotion programs.

Course Objectives

After studying this course, students should be able to:

1. The project management knowledge areas and process groups
2. The triple constraint of project management applied to a healthcare environment
3. The project life cycle
4. Tools and techniques of project management

Course Content

1. Introduction to Project Formulation

- Preparing for project formulation
- Analyzing the organizational situation
- Analyzing the Health, Socioeconomic and Demographic situation
- Analyzing and projecting the problems
- Setting the objectives and targets
- Identifying potential obstacles

2. Designing the strategies

- Planning the project
- Writing the project proposal
- Initiating the project implementation

3. Specifying and scheduling the work

- Clarifying authorities, responsibilities, and relationships
- Obtaining resources

4. Directing and controlling

5. Terminating the project

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Bainbridge, J. WHO. Health Project Management a manual of procedures for formulating and implementing health projects.
2. Schouw, M. V. D. Practical Project Management
3. Shirly, D. Project Management for Health Care

WHP 304: CONCEPTS OF HEALTH EDUCATION AND PROMOTION

Course Description

- This course enhances the student's awareness about the factors that influence health such as; heredity, environment, health care services, and behavior.
- It critically evaluates student's understanding and attitudes towards health education and promotion.
- It develops personally and professionally skills through participative and experiential learning; and through empowerment.
- It helps the students who would become health educators or health promoters to enhance the pedagogy and practical skills of teachers in the context of revised curricula and develop new approaches to evaluation and assessment strategies and to become effective facilitators of learning.
- It also provides the students with knowledge and practice of integrating technology with health promotion practice.

Course Objectives

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

1. Recognize causes of diseases and the threats to the health of individuals and populations at risk.
2. Identify and evaluate risk factors, plan and implement strategies, considering diversity, ethnicity and social inequality.
3. Use evidence-based practice and effective interventions.
4. Help patients to modify behavior while respecting their autonomy.
5. Plan health promotion considering barriers to prevent disease and promote health the individual and the population.
6. Identify the importance of audit of health promotion and disease prevention activities.
7. Identify specific techniques and practice some of them in planning and implementation of technology-based health promotion interventions.

Course Content

1. **Health, Health education, health promotion and health policy.**
 - Theoretical background to health behavior

- Individual and collective change
- 2. Defining communication**
- Media and methods for health communication
- Community participation and intersectional collaboration
- 3. Designing health education and health promotion**
- 4. Organization and management**
- 5. Health promotion ethics**

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Koelen, M. A., Anne W. & Ban, V. D. (2004). Health education and health promotion. NL: Wageningen Academic Publishers.
2. Laverack G. (2007). Health promotion practice : Building empowered communities. New York: Open University Press.
3. Bull, S. & McFarlane, M. (2010). Technology-based health promotion. US: Sage Publications Inc.

WHP 305: TRAUMA MANAGEMENT

Course Description

- This course is about managing trauma, from minor injury to humanitarian emergencies, including injuries in women, children and the elderly, with the principal goal of improving quality of care and patient safe.

Course Objectives

Upon completing this course, students will be able to:

1. Understand the difference between different types of injuries and traumas
2. Deal with health emergencies situations
3. Apply effective trauma care management
4. Recognize the different care needed in different types of traumas and injuries
5. Understand the systematic way of dealing with traumas

Course Content

1. Types of Injuries and Traumas

- Head and Face injuries
- Spine and spinal cord trauma
- Thoracic injuries
- Abdominal and pelvic trauma
- Upper and lower extremity trauma
- Peripheral vascular injuries
- Thermal injuries
- Complications of Trauma
- Major and Minor Trauma

2. Management of trauma

- Management Goals
- Trauma care management
- casualty reception and initial management
- Operative Management of Injuries

3. Six phases of Trauma care management

- Triage

- Primary survey
- Secondary Survey
- Stabilization
- Transfer
- Definite Care

4. Emergency Procedures

- Trauma in children
- Trauma in women
- Dealing with Rape Cases
- Dealing with the cases of physical and sexual Violence

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. WHO. (2004). Guidelines for Essential Trauma Care. World health organization (Geneva, Switzerland)
2. WHO. (2013). Hospital Care for Children. World health organization (Geneva, Switzerland)
3. WHO. (2018). Quick Check and emergency treatments for adolescents and adults. Quick Check and emergency treatments for adolescents and adults. World health organization (Geneva, Switzerland)
4. WHO. (2005). Emergency Triage Assessment and Treatment. World health organization (Geneva, Switzerland)

5. WHO. (2007). Guidelines on Emergency Health Care. World health organization (Geneva, Switzerland)
6. WHO. (1993). Oxygen Therapy for Acute Respiratory Infections in Young Children in Developing Countries. World health organization (Geneva, Switzerland)
7. WHO. (2007). Mass Casualty Management Systems. World health organization (Geneva, Switzerland)
8. WHO. Prevention and Management of Wound infections. World health organization (Geneva, Switzerland)
9. WHO. (2009). Safe Surgery. World health organization (Geneva, Switzerland)
10. WHO. (2020). Clinical Management of Rape Survivors. World health organization (Geneva, Switzerland)
11. WHO. (2003). Guidelines for Medico-legal Care for Victims of Sexual Violence. World health organization (Geneva, Switzerland)

WHP 306 MEDICAL ANTHROPOLOGY

Course Description

- Medical anthropology is a broad and vibrant discipline that draws on the four traditional subfields of anthropology—cultural, biological, linguistic, and archaeology.
- Examine the bio cultural basis of health and to understand the cultural dimensions of illness experience and treatment.

Course Objectives

After studying this course, student should be able to:

1. Discuss the ways in which ideas regarding health, illness, and treatment are socially constructed
2. Analyze biomedicine as a cultural system and the nature of its spread around the globe
3. Recognize the value of anthropology in understanding medicine and healing
4. Break down complex academic journal articles into thesis, main points, and supporting evidence
5. Conduct and present independent research on current popular health topics
6. Successfully apply the arguments presented in academic articles to non-anthropological writing

Course Content

1. **Introduction of Medical Anthropology**
2. **Culture and social aspects**
 - Body,
 - Health,
 - Sickness and illness in the cross cultural prospective
 - Effects of culture on health
3. **Medicalization**
 - Authoritative knowledge and belief
4. **Global inequities**
 - The phenomenology of disability, death and role of medical schools
5. **Understanding interpretive approaches, critical theory and phenomenology**

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Brown, P. J. & Closser, S. (2016). *Understanding and Applying Medical Anthropology*. (3rd Ed).
2. Montross, C. (2007). *Body of Work: Meditations on Mortality from the Human Anatomy Lab*. Penguin Books.
3. Lock, M. (2002). *Twice Dead: Organ Transplants and the Reinvention of Death*. Berkeley: University of California Press.
4. Fadiman, A. (1997). *The Spirit Catches You and You Fall Down: A Hmong Child, Her American Doctors, and the Collision of Two Cultures*. Farrar, Straus, and Giroux.
5. Murphy, R. (1990). *The Body Silent: The Different World of the Disabled*. New York: W.W. Norton.

WHP 307 SOCIAL SECURITY NET AND RISK MITIGATION

Course Description

- Social Security course forms a major area of government policy and social expenditure. Government activity in this area impacts directly on all citizens, and consequently social security policy is the focus for much debate. People are affected by social security whether by funding it through taxation, or using it when claiming unemployment or other benefits, to provide for the material needs of individuals and families. It provides the introduction for students of social policy and administration.
- The program occupational risk mitigation/ management play a crucial role in the everyday success of an organization. Occupational Safety and Risk Management Certificate Program is designed to further develop your knowledge and understanding of health, safety, and environmental management, while stressing its importance in the workplace.

Course Objectives

After completion of this course, students will be able to:

1. Protect aged and disabled persons against the expenses of illnesses that may otherwise use up their savings
2. Understand the importance of giving children the chance to grow up healthy and secure

Course Content

1. Definitions and Concepts

- Poverty Jonathan Bradshaw
- Aims of Social Security Roy Sainsbury
- Development of Social Security Peter Alcock
- Poverty and Adequacy John Veit-Wilson
- Pensions Policy Eileen Evason
- Claiming Entitlements: Take-Up of Benefits Ann Corden
- Poverty and Disability Sally Baldwin and Helen Barnes
- Poverty and Social Security: Women's Business Eithne McLaughlin
- Race, Social Security and Poverty Gary Craig
- Poverty in a European Context John Ditch

2. Social Security Social Protection and Safety Nets

- International and Operational Definitions of Social Security
- Distinguishing Between Social Protection and Safety Nets
- Risk, Vulnerability and pro-poor Growth

3. Social protection

- A Working Definition of Social Protection
- Choosing Social Protection Instruments
- Institutionalizing Social Protection
- Multi-Dimensional Social Protection Perspective
- Expanding Approaches to Social Protection

4. Existing Provision for Social Protection in Pakistan

- History of Social Safety Net Programs in Pakistan
- An Overview of Current Social Safety Net Programs
- Zakat, Pakistan Bait-ul-Mal and Related Assistance
- Labor Welfare Schemes
- Wheat Subsidy Program
- Microfinance and Microcredit Initiatives
- Informal Social Protection Mechanisms

5. Social Security Schemes for Workers in Pakistan (Formal Sector)

- Pension and Retirement Benefits (Old Age Support)
- Pensions for Government Employees
- Other Private Sector Pension Plans
- Employees' Old Age Benefit Institution (EOBI)
- Employees' Social Security (ESS)
- Workers' Profit Participation Scheme
- The Workers Welfare Fund (WWF)
- Excise Duty on Minerals (Labor Welfare) Scheme, 1967
- The Workers' Children Education Ordinance, 1972
- Compulsory Group Insurance Scheme, 1968

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Routledge. (1999). Introduction to Social Security Policies, Benefits and Poverty. ISBN 9780415214315.
2. Pakistan Institute of Development Economics Islamabad, PAKISTAN (2003). Poverty and Social Safety Nets: A Case Study of Pakistan
3. Asian Development Bank. (2005). Conceptualizing a Social Protection Framework for Pakistan

SIXTH SEMESTER

Course No.	Title of Course	Credit Hours
WHP 307	Internship/ Project	3(0-3)
WHP 308	Principles and Practices of Safety Management System	3(3-0)
WHP 309	Introduction to Environment Science	3(3-0)
WHP 310	Monitoring and Evaluation of Occupational Safety and Health (OSH)	3(3-0)
WHP 311	Introduction to SPSS	3(3-0)
WHP 312	Advocacy & Social Mobilization in Occupational Safety & Health (OSH)	3(3-0)
		18

WHP 308: PRINCIPLES AND PRACTICES OF SAFETY MANAGEMENT SYSTEM

Course Description

- This course introduces effective safety programs in industry; covers the causative factors of industrial accidents, the basic elements in safety management for accident control, risk management and insurance programming.

Course Objectives

After completion of the course, students will be able to:

1. Develop an interest in and appreciation for careers in the field.
2. Understand different safety management theories.
3. Understand different elements of safety programming and their rationale.

Course Content

1. History of the safety movement

- Safety and health programs
- Accident causes and types of accidents

2. Occupational safety and health performance measurement

- Responsibility for occupational safety and health
- Safety inspections
- Occupational safety and health training at workplace
- Occupational safety and health standards
- OSHA's role in occupational safety and health

3. Role of the promotional program and its implementation

- Safety committees and safety teams
- Accident investigation
- The role of insurance and risk management/ loss control in occupational safety and health

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Fuller, C., & Vassie, L. H. (2004). *Health and safety management: principles and best practice*. Pearson Education.
2. Möller, N., Hansson, S. O., Holmberg, J. E., & Rollenhagen, C. (Eds.). (2018). *Handbook of safety principles* (Vol. 9). John Wiley & Sons.
3. Koren, H. (1980). *Handbook of environmental health and safety: principles and practices*. Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, New York 10523, USA.

WHP 309: INTRODUCTION TO ENVIRONMENT SCIENCE

Course Description

- This course introduces the principles of environmental health and examines the short- and long-term effects of environmental hazards on human health.
- Students consider their own interactions with natural and human-made environments to assess the impact of chemical, physical, biological, and social elements on their health.
- Students explore the potential impact of climate change on population health, emerging global health threats related to the environment, and environmental factors involved in the aetiology and transmission of both communicable and non-infectious disease.

Course Objectives

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

1. The importance of Environmental Science in human life, its relationship with various segments of society and sectors of development.
2. Identify with current national, regional and global challenges for sustainable development.

Course Content

1. Basic principles

- convergence of ecology with economic and sociology to evolve as environmental science, its nature, history, scope and the contribution to society

2. Environmental aspects

- Physic-chemical, biological, socio-economic, socio-cultural, moral and ethical, and philosophical thinking.

3. Environmental problems

- Local, regional and global level.

4. Environmental challenges

5. Sustainability of resources for development

- Efficiency of energy and water resources, current and future trends in growth and resultant environmental pollution, poverty and resource depletion, development in industry, agriculture and urbanization.

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Sessional Work

The sessional work will be a combination of written assignments, class quizzes, presentations, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

2. Botkin, D. B & Keller, E. A. (2013). Environmental Science: Earth as a Living Planet, Botkin. (9th Ed). John Wiley & Sons.
3. McKinney, M. L., Schoch, R. M. & Yonavjak, L. Environmental Science: systems and solutions. (5th Ed). Jones & Bartlett Publishers, 2013
4. Wright, R. T. & Nebel, B. J. (2007). Environmental Science: Toward a Sustainable Future. (10th Ed). Pearson Educational.
5. Miller, G. (2005). Environmental Science: working with the Earth.. Cengage Learning.
6. Moeller, D. W. (2011). Environmental Health. (4th Ed). ISBN-10: 0674047400.
7. Yassi, A., Kjellstron, T., Kok, T. D. & Guidotti, T. (2001). Basic Environmental Health. ISBN-10: 019513558X.

WHP 310: MONITORING, MEASUREMENT, AND EVALUATION OF OCCUPATIONAL SAFETY AND HEALTH (OSH)

Course Description

- The course gives an introduction to occupational organizational questions, focusing on unsafe and dangerous work.

Course Objectives

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

1. Understand conceptual framework of monitoring,
2. Measure and evaluate the occupational safety and health
3. Enable to apply the framework in practical world.

Course Content

1. **World of occupational safety and health (OSH)**
 - Role of a labor inspectorate in improving OSH
 - Performance measurement
 - Problems in performance measurement
2. **Conceptual framework for performance measurement**
 - Important definitions - vision, goals, objective
 - Inputs
 - Activities
 - Outputs
 - Outcomes
 - Efficiency and effectiveness
 - Attribution
3. **Applying the conceptual performance measurement model**
4. **Connecting the steps of conceptual framework**
5. **Performance measurement in action- Case studies**
6. **Audits and Evaluation**

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Tōsine, H., & Wedege, N. P. (2013). Measuring performance of the occupational safety and health function—A handbook for labour inspectorates. International association of labour inspection (IALI).

WHP 311: INTRODUCTION TO SPSS

Course Description

- The course is designed to provide an intensive introduction to the latest version of the Statistical Package for the Social Sciences (SPSS), now known as IBM SPSS Statistics.
- SPSS is a user-friendly Windows-based statistical software and a powerful and versatile tool for data analysis.

Course Objectives

Upon successful completion of this course, the student should be able to:

1. Understand the main features of SPSS;
2. Use the SPSS effectively;
3. Perform descriptive analyses with SPSS;
4. Perform common parametric and non-parametric tests; and
5. Perform simple regressions and multivariate analyses

Course Content

1. Introduction to SPSS

- Introduction to Course, Basic Steps to Data Analysis
- Techniques to get data into Data Editor of SPSS
- Selection of Procedures to Apply
- Selection of Variables for Analysis
- Manual Output of Statistical Procedures by using Statistical Techniques
- Implementation of Statistical Procedures by using SPSS
- Results and Reports generation under SPSS
- Reviews/ Problems

2. Introduction to Web Survey and Data Storage in Database Basic Terminologies of Web Survey

- Introduction to HTML
- Tables Construction in HTML
- Web Survey Display in HTML
- Inputs in HTML[will be used to get input from Users]

- Development of a Complete Web Survey
- Basic terminologies of Data Storage in a database
- Complete Web Survey and Data Analysis Course Review and Problems

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Sessional Work

The sessional work will be a combination of written assignments, class quizzes, presentations, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Leech, L. N., Barret, C. K. & Morgan, A. G. (2005). *SPSS for Intermediate Statistics*. London: Lawrance ERLBAUM Associates Publishers.
2. Kirkpatrick, A. L. & Feeney, C. B. (2003). *A Simple Guide to SPSS for Windows*. New York: Thomson Learning Academic Resource Center.
3. Hanif, M. & Ahmed, M. (2008). *BIOSTATISTICS for Health Students with Manual on Software Applications*. Lahore: ISOSS (Islamabad Society of Statistical Sciences) Publications.
4. Brace, N., Kemp, R. & Snelgar, R. (2006). *SPSS for Psychologists*, Palgrave Macmillan Third Edition.

WHP 312: ADVOCACY & SOCIAL MOBILIZATION IN OCCUPATIONAL SAFETY & HEALTH (OSH)

Course Description

- This course will help students to understand social mobilization in relation to the occupational health and safety.
- This course will emphasize the skills needed and an understanding of concepts required to enable you to mobilize a community and promote community participation.

Course Objectives

After studying this course, student should be able to:

1. Describe the concept of health and its determinants
2. Define Health Promotion and Develop an understanding about evolution of health promotion
3. Explain the models of Health promotion
4. Recognize the cultural diversities in Health Promotion
5. Learn various strategies and methods for Health Promotion

Course Content

1. **Concept and Determinants of Health**
2. **Health Literacy and Health Communication**
 - Introduction of Health Education
 - Introduction to Health Promotion
 - Ottawa Charter, Jakarta Declaration, Healthy Cities 2000
3. **Advocacy, Community Participation, Enablers and Healthy Public Policy**
 - Approaches to Health Promotion
4. **Cultural Diversity in Health Promotion**
5. **Intervention Programs**
6. **Social Mobilization**

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Sessional Work

The sessional work will be a combination of written assignments, class quizzes, presentations, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Egger, G., Donovan, R. & Spark, R. (2013). Health Promotion Strategies and Methods.
2. Raingruber, B. Health Promotion Theories Jones and Barlett Learning, Naidoo Foundations for Health Promotion, Elsevier Health Sciences
3. National Institute of Health England: HPR 850 Theory at a glance: A guide for Health Promotion Practice National Institute of Health England: HPR 850

SEVENTH SEMESTER

Course No.	Title of Course	Credit Hours
WHP 401	Research Methods	3(3-0)
WHP 402	Disability and Rehabilitation	3(3-0)
WHP 403	Mental Health Promotion	3(3-0)
WHP 404	Human Physiology	3(3-0)
WHP 405	Global Burden of Disease of Injuries and Non - communicable Diseases	3(3-0)
		15

WHP 401: RESEARCH METHODS

Course Description

- This course will focus on providing skills for designing and implementing health research projects. The students will be introduced to basic steps of research process, how research proposal is written, project is designed, and implemented.

Course Objectives

After studying this course, student should be able to:

1. Understand the importance of Qualitative and Quantitative Research
2. Develop research protocol
3. Critically appraise a research paper
4. Write a research paper

Course Content

1. **Introduction to Research Methodology**
 - Types of Research
 - Selection of Research Topic
 - Formulation of Objectives
2. **Literature Search**
3. **Writing Introduction**
4. **Plagiarism**
5. **Writing Methodology**
 - Data Collection/Questionnaire Design
6. **Analysis and Interpretation**
7. **Report Writing**
8. **Timeline (Gantt Chart)**
9. **Budget Plan**

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Sessional Work

The sessional work will be a combination of written assignments, class quizzes, presentations, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Kumar, R. (2014). Research Methodology: A Step-by-Step Guide for Beginner.
2. Kuada, J. (2012). Research Methodology: A Project Guide for University Students 1st edition.
3. Flick, U. (2011). Introducing Research Methodology: A Beginner's Guide to Doing a Research Project.
4. Varkivisser, C. M. WHO. Designing and Conducting Health System Research Projects. International Development Research Center
5. Abramson, J. H. & Abramson, Z. H. Survey Methods in Community Medicine. 5th Edition. Churchill Livinstone
6. Taylor, Sinha & Ghoshal Research Methodology PHI
7. Davies, M. R. Doing a successful Research Project Palgrave
8. Singh, S.R. Research Methodology APH

WHP 402: DISABILITY AND REHABILITATION

Course Description

- This course provides a comprehensive overview of disability management, including its philosophy and principles and the role of disability management personnel
- This course outlines Pakistan's disability policies and related programs, as well as the development of vocational rehabilitation professions

Course Objectives

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

1. Explore the social, vocational, economic and family issues that impact people with disabilities, as well as the concepts of rehabilitation, vocational rehabilitation and disability management.
2. Understand foundational theories, historical practices, and current trends related to rehabilitation and disability management.

Course Content

1. Concepts and Definitions

- Current concepts in disability
- Rehabilitation
- Nature of disability
- Impact of disability
- Disability management

2. Models of disability

3. Philosophy of rehabilitation

4. Disability policies and practices in Pakistan

- Values, principles and practices of vocational rehabilitation and disability management

5. Development of disability management and its components

- Roles of disability management personnel and the skills required
- Current trends in disability management
- Issues of disclosing disabilities to employers

6. Tools and strategies related to vocational rehabilitation and disability

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Escorpizo, R., Brage, S., Homa, D., & Stucki, G. (2016). *Handbook of vocational rehabilitation and disability evaluation*. Springer International Pu.
2. Loisel, P., & Anema, J. R. (2013). *Handbook of work disability. Prevention and management.: Springer*.
3. Bültmann, U., & Brouwer, S. (2013). Individual-level psychosocial factors and work disability prevention. In *Handbook of work disability* (pp. 149-162). Springer, New York, NY.
4. Ståhl, C., Costa-Black, K., & Loisel, P. (2018). Applying theories to better understand socio-political challenges in implementing evidence-based work disability prevention strategies. *Disability and rehabilitation, 40*(8), 952-959.

WHP 403: MENTAL HEALTH PROMOTION

Course Description

- This course focuses to examine a variety of perspectives and contextual factors used to explore issues and concepts of mental health promotion. Distribution patterns, risk factors, organization of health systems, and societal efforts toward prevention and treatment will also be reviewed.
- A focus will be placed on understanding the social determinants of health and exploring issues from a population and public health perspective.

Course Objectives

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

1. Define Mental Health and cover the basic concepts of Community Mental Health.
2. To enumerate common mental health problems in Pakistan
3. Learn to apply levels of prevention to mental health problems
4. Understand the biological, psychosocial and socioeconomic factors affecting mental health
5. Describe the main reasons of substance abuse

Course Content

1. Introduction to Mental Health

- Prevention of Mental ill health and promote mental health
- Risk and protective factors for mental disorders
- Socioeconomic determinants of Mental health
- Mental Health and Quality of life

2. Strengthening Community Network

- Reducing Harm from Addictive Substances
- Prevention of Child abuse and neglect

3. Coping with parental mental illness

4. Management of mental health in Rehabilitation Centers

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Sessional Work

The sessional work will be a combination of written assignments, class quizzes, presentations, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Kinderman, P. (2019). A Manifesto for Mental Health: Why We Need a Revolution in Mental Health Care.
2. Compton MT. (2015). Social Determinants of Mental Health. American Psychiatric Associations.
3. Larol S. (2012). Handbook of Sociology of Mental Health. 2nd Ed. Springer R Streevani
A guide to Mental Health & Psychiatric Nursing 2nd JaypeeS.
4. Barlett, A. & McGauley, G. (2010). Forensic Mental Health: Concepts, Systems, and Practice edited.
5. Tengland, P. A. (2001). Mental Health: A Philosophical Analysis 2001.

WHP 404: HUMAN PHYSIOLOGY

Course Description

- Human Physiology course aim to provide students with an understanding of the function, regulation and integration of human body organ systems.
- Emphasis is placed on homeostatic maintenance in health as well as in some disease processes.

Course Objectives

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

1. Understand functions of different body organs
2. Understand risk parameters related to assessment and prognosis of different diseases

Content- Theory

1. Introduction

- Introduction to human physiology,
- Organization level and cell physiology;

2. Digestive system

- Oral cavity,
- Salivary glands,
- Teeth,
- Tongue;
- Oesophagus,
- Pharynx,
- Larynx,
- Stomach,
- Small intestine,
- Large intestine,
- Accessory glands associated with git (liver, gallbladder and pancreas);

3. Urinary system

- Introduction,
- Functions of kidney and nephron,
- Glomerular filtration,

- Tubular reabsorption,
- Tubular secretion,
- Urine excretion and plasma clearance,
- Fluid and acid base balance;

4. Cardiovascular system

- Functions of heart and blood vessels,
- Electrical activity of heart,
- Mechanical events of heart,
- Cardiac output and its control.

Content- Practical

1. Blood grouping; Hb estimation; Counting of blood cells; complete blood count (CBC); Electrolyte estimation; Hydration test; Determination of coagulation time, blood pressure, pulse recording;
2. Heart activity – electrocardiography; Test for saliva;
3. Respiratory movement, maximum breathing capacity,
4. pulmonary function test; Intestinal motility;
5. Renal function tests and urine analysis.

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Gillian, P. & Richards, C.D. (2006). Human Physiology: The Basis of Medicine, (3rd ed.) Oxford University Press, London.

2. Guyton, A.C. & Hall, J.E. (2006). Textbook of Medical Physiology, (11th ed.) J.F. Kennedy Blvd., Philadelphia, USA.
3. Rahman, Z.U., Aslam, B., Khan, J.A. & Khaliq, T. (2007). Manual of Physiology-I (2nd ed.) MAS Computers, Faisalabad, Pakistan.
4. Rahman, Z.U., Aslam, B., Khan, J.A. & Khaliq, T. (2007). Manual of Physiology-II, (2nd ed.) MAS Computers, Faisalabad, Pakistan.
5. Tortora, G.J. (2008). Principles of Anatomy and Physiology, (12th ed.) John Wiley & Sons, Inc., New York, USA.

WHP 405: GLOBAL BURDEN OF DISEASE OF INJURIES AND NON - COMMUNICABLE DISEASES

Course Description

- The aim of the course is to develop the understanding of global burden of diseases, regional and national pattern of global burden of major diseases and their risks.
- The aim of the course is to let students understand the concept of non-communicable diseases and ways how they can be controlled in Pakistan.

Course Objectives

After studying this course, student should be able to:

1. Develop a critical understanding of the concepts and measures used in studies of global burden of diseases.
2. Understand regional and national patterns of global burden of major diseases and their risk factors.
3. Apply critical knowledge in global burden studies to disease monitoring, intervention, health promotion, and policy implications in topical areas.
4. Discuss the strategies of control of common injuries and non -communicable Diseases in Pakistan

Course Content

1. Diseases and Traditional Categories

- Non-Communicable Diseases
- Communicable Disease

2. Introduction to the Global Burden of Disease

- Historical Background for Global Health and Global Burden of Diseases
- International Disease Classification Systems
- Group I are the pre-transitional causes: communicable, maternal, perinatal and nutritional
- Group II are the non-communicable causes
- Group III are the intentional and unintentional injuries.
- IHME GBD visualization tools
- GBD basic measures:

- YLL- Years of life lost
 - YLD - Years of life lost due to disability
 - DALY- Disability-adjusted life years
- 3. Basic Models of Global Burden of Disease**
- Basic Models of Global Burden of Disease
 - Methods & Practices
 - Major WHO-initiated studies
 - The Global Burden of Disease, Injuries and Risk Factors 2020
- 4. Global Burden of Disease and Risk Factors**
- Burden of Disease Attributable to Risk Factors
 - Risk Factor Selection
 - Burden of Disease Attributable to Individual Risk Factors
 - Joint Effects of Multiple Risk Factors
 - Burden of Disease Attributable to Multiple Risk Factors
- 5. Injuries: Types and Global Burden**
- A. Unintentional injuries**
- Road traffic accidents
 - Poisonings
 - Falls
 - Fires
 - Drownings
 - Other unintentional injuries
- B. Intentional injuries**
- Self-inflicted injuries
 - Violence
 - War
 - Other intentional injuries

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Sessional Work

The sessional work will be a combination of written assignments, class quizzes, presentations, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Hyder, A. A., Puvanachandra, P., Morrow, R. H. (2012). Measures of health and disease in populations. In Merson MH, Black, RE, Mills AJ (Eds.) Global Health. Diseases, Programs, Systems, and Policies. Third Edition. Jones & Bartlett Learning, 2012 (Chap 1).
2. World Health Organization (2001): National Burden Of Disease Studies: A Practical Guide <https://www.who.int/healthinfo/nationalburdenofdiseasemanual.pdf>
3. World Health Organization. The Global Burden of Disease concept (Chap 3).
4. Lopez, A. D., Mathers, C. D., Ezzati, M., Jamison, D. T., & Murray, C. J. L. (Eds.). (2006). Global Burden of Disease and Risk Factors. Washington, DC: Oxford University Press and World Bank, 2006 (Chap 1).
5. Keating C. (2018). The art of medicine: the genesis of the Global Burden of Disease study. Lancet 2018; 291:2317.
6. Solberg, C. T., Norheim, O. F., Barra, M. (2017). The disvalue of death in the global burden of disease. J Med Ethics: 2017:0:1-7.
7. Voigt, K., King, N. B. (2014). Disability weights in the global burden of disease 2010 study: two steps forward, one step back? Bull World Health Organ, 92:226-228.
8. Kasenga, F. (2016). Epidemiology of Communicable and Non-Communicable Diseases: Attributes of lifestyle and Nature of Humankind.
9. Thakur, J. S. (2015). Public Health approaches to non-communicable diseases.
10. Thakur, J.S. (2015). Non-communicable diseases.
11. Ministry of Health, Government of Pakistan, World Health Organization, Heartfile. (2004). National action plan for prevention and control of non-communicable diseases

and health promotion in Pakistan: a public-private partnership in health. Islamabad, Pakistan: tripartite collaboration of the Ministry of Health, Government of Pakistan; WHO, Pakistan office, and Heartfile.

12. Moroflubkin, I. & Larsen, P. D. Chronic Illness 4th Jones & Bortlett Publishers

WHP 406: HEALTH PROMOTION AND LATER LIFE

Course Description

- This course is designed to guide the student interested in health promotion topics for elderly through an experiential learning process using contemporary literature and lecturers, as well as real life applications of health promotion in local health and human service organizations.

Course Objectives

Upon completion of this course, student should be able to:

1. Gain an understanding of what we mean by health promotion.
2. Identify the issues affecting older people's health.
3. Gain knowledge and effective approaches to undertake health promotion with older people.

Course Content

1. Introduction to health Promotion

2. Health Promotion in Old Age

- Health Issues in Old Age
- Issues Affecting Old Age Health
- Approaches to deal with Old Age Health Issues
- Approaches used for Health Promotion in Old Age

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Murray, R. B. & Zentner, J. P. (2008). Health Promotion Strategies Through the Life Span (8th Edition). ISBN-10: 0135138663.
2. Edelman, C. L. & Mandle, C. L. (2009). Health Promotion Throughout the Life Span - Text and E-Book Package. (7th Ed).

EIGHTH SEMESTER

Course No.	Title of Course	Credit Hours
WHP 406	Research Thesis	6(0-6)
WHP 407	Assessment and Control of Work-Related Hazards	3(3-0)
WHP 408	Toxicology: Effluent & Emission Control/Waste Management	3(3-0)
WHP 409	Personal Hygiene and Health	3(3-0)
WHP 410	Gender Occupational Health & Safety	2(2-0)
		17

WHP 407: ASSESSMENT AND CONTROL OF WORK-RELATED HAZARDS

Course Description

- This course aims to identify, assess and control hazards is an essential part of a properly functioning occupational health and safety program.
- will help the students to understand and the health and safety performance. They will learn effective and proven methods of hazard identification, assessment and control.
- The course covers essential topics such as hazard mapping, workplace inspections, risk assessment techniques and the hierarchy of controls.

Course Objectives

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

1. Identify the hazards, risk assessment and its importance
2. Identify and mitigate hazards in workplace

Course Content

- 1. Defining hazard identification and risk assessment its importance**
- 2. Type of hazards in familiar and unfamiliar workplaces**
- 3. Hazard identification methods**
 - Hazard mapping
 - Job hazard analysis
 - Checklists
 - Workplace inspections
- 4. Two comprehensive risk assessment methods**
 - Basic Qualitative method
 - Semi-Qualitative
- 5. Identify hazards in various workplaces and potential sources of hazards**
 - The hazards and control measures associated with confined spaces and gasses.
 - The hazards and control measures associated with handling chlorine.
 - The hazards and control measures associated with handling chemicals.
 - The types and uses of personal protective equipment.
- 6. Processes to alleviate potential hazards**

- Transportation of dangerous goods (tdg) requirements
- The symptoms of an infectious disease.
- Outline laboratory safety procedures.
- Common laboratory safety equipment
- Whmis 2015 requirements

7. The principles of preventive action in workplaces

- Selection and implementation of appropriate controls
- Hierarchy of controls
- Hazard specific control mechanisms

8. Commonly used terminology to describe risk and hazard in a workplace

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Stranks, J. (2007). Health and safety at work: An essential guide for managers. Kogan Page Publishers.
2. International Labour Office (ILO). (2013). Training package on workplace risk assessment and management for small and medium-sized enterprises.
3. Stranks, J. (2012). Health & Safety at Work.
4. David, G. (2014). Relevant Federal Regulations; Occupational Safety and Health for Technologists, Engineers, and Managers.
5. Manuele, F. (2014). Advanced Safety Management. (2nd Ed). (Wiley Pres); additional selected readings and case studies.

6. Safe Work in the 21st Century: Education and Training Needs for the Next Decade's Occupational Safety and Health Personnel (2000) : Institute of Medicine, Board on Health Sciences Policy, Committee to Assess Training Needs for Occupational Safety and Health Personnel in the United States
7. ILO. (1997). Safety and Health at Work: ILO-CIS Bulletin, Volume 11: International Occupational Safety and Health Information Centre.

WHP 408: TOXICOLOGY & WASTE MANAGEMENT

Course Description

- This Course introduces student to the basic principles of toxicology and the application of toxicology to the environment, food, forensics, and occupational settings. Biochemical interactions of industrial, agricultural, and household chemicals with elements of soils, plants, animals, and humans.

Course Objectives

After completion of the course, students will be able to:

1. Describe the chemical properties and the biological processes which modulate the toxicokinetics of chemical agents of public health importance
2. Explain the significance of biotransformation reactions as a determinant of the toxicokinetic and toxicodynamic activities of chemicals
3. Describe molecular, cellular and pathophysiological responses resulting from exposure to chemical agents relevant to human health
4. Identify underlying susceptibility factors which contribute to the ability of chemicals to elicit bio effects which contribute to human disease
5. Explain the science underlying testing for the ability of chemicals to elicit adverse human health effects
6. Put into perspective the role of toxicology in the risk assessment process
7. Discuss in depth the toxicology of selected organs and agents

Course Content

1. **Basic principles: factors that affect toxicity**
 - Toxicokinetics: absorption, distribution, excretion, and biotransformation
 - Toxicity testing, dose response and risk assessment
2. **Environmental carcinogenesis**
 - Biomarkers of exposure and susceptibility factors
 - Approaches to primary and secondary prevention
 - Hepato and renal toxicology: basic principles and specific examples
3. **Reproductive and developmental toxicology: basic principles and specific examples (e.g., endocrine disruptors, thalidomide)**

- Immunotoxicology: basic principles, cutaneous and pulmonary hypersensitivity
- Persistent organic pollutants (POPs) and dioxins
- Bone marrow toxicity: benzene as a case study
- Neurotoxicology
- Metal toxicology: mercury, cadmium
- Ozone, a criteria air pollutant
- Nanoparticle toxicology
- Effluent and emission control

4. Waste Management

- Solid waste management
- Water waste management
- Conventional and natural ways of managing water and solid waste

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Casarett & Doull. (2013). *Essentials of Toxicology*, (8th Ed). .D. Klaassen and J.B. Watkins III, eds. McGraw Hill Medical, NY.
2. Hayes, W. (2008). *Principles and Methods of Toxicology*. (5th Ed) CRC Press, Boca Ratan.

WHP 409: PERSONAL HYGIENE AND HEALTH

Course Description

- Principles of Personal Hygiene provides an introduction to the field of Personal Hygiene and to occupational health in general.
- The instructor focuses on introducing concepts, terminology, and methodology in the practice of Personal Hygiene and identifies resource materials.
- Occupational Hygienists are responsible for the recognition, evaluation, and control of workplace environmental factors that may affect the health, comfort, or productivity of the worker. Industrial hygiene is considered a “science”; however, it is also an art that involves judgment, creativity, and human interaction.

Course Objectives

After studying this course, students should be able to:

1. Understand the importance of workplace Hygiene
2. Identify the effects of eugenics on co-workers
3. Identify relationship of personal and occupational hygiene with disease
4. Describe how personal hygiene and occupational improves health of individuals

Course Content

1. Introduction to Personal Hygiene

- Hand wash
- Eye hygiene
- Hair hygiene
- Body hygiene
- Oral hygiene
- Nails and cuticles
- Feet and shoes

2. Protection from noise and UV Light

- Control of foul odor

3. Role of personal hygiene in communicable and Non communicable diseases

- Types of cleanliness (intrinsic & extrinsic)

4. Prevention of cough cold and other contagious disease

5. Smoking and protecting rights of others

6. Personal hygiene at home

- Clothes
- Kitchen
- Washroom

7. Personal hygiene at schools

8. Personal hygiene at surroundings

9. Personal hygiene at work place

10. Cleanliness and religion

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Plog, B. A., Quinlan, P. J. & Villarreal, J. (2012). Fundamentals of Industrial Hygiene 6th Edition (Fundamentals of Industrial Hygiene) Hardcover. ISBN-10: 0879123125.
2. Gardiner, K. & Harrington, J. M. (2005). Occupational Hygiene. (3rd Ed). ISBN-10: 1405106212
3. Neil, S. O. Personal Hygiene Basic.
4. Beth W Ornstein. A Guide to good personal hygiene. Everyday health.com
5. Virginia Smith. Clean: A History of Personal Hygiene and Purity. Oxford University Press

WHP 410: GENDER AND OCCUPATIONAL HEALTH & SAFETY

Course Description

- The aim of the course is to recognize diversity, including gender differences, in the workforce is vital in ensuring the safety and health of both men and women workers.
- This course focuses on considering Gender differences in the development of occupational safety and health (OSH) policies and prevention strategies. This approach acknowledges and makes visible the differences that exist between men and women workers in order to identify OSH risks and implement effective solutions.

Course Objectives

After successfully completing this course, students will be able to:

1. Locate and use occupational, health and safety legislation and materials.
2. Explain the key components of an effective occupational, health and safety program and their roles and responsibilities as a water treatment operator.
3. Describe construction, plant and occupational hazards and utilize resources and strategies to ensure proper safety procedures are implemented.

Course Content

1. Regulations

- Why a gender and Occupational Health and Safety (OHS) program is needed.
- General rights and responsibilities
- Resources to assist in finding legislation specific to your province or region.
- Components of an OHS program.
- An effective OHS program.
- Field hazards assessment and controls process to workplace hazards.
- How to report accidents and write incident investigation reports.

2. Construction Safety

- The hazards and control measures for construction site safety.
- Resources for construction safety issues.
- Basic traffic safety control measures.
- Hazards and control measures associated with excavations.
- The main hazards associated with welding.

- The hazards associated with contaminated waste sites.
- The hazards and control measures associated with underground and overhead utilities.
- Resources to educate yourself on specific hazards you may encounter on the job site.

3. Plant Safety

- Control slips and falls.
- The safety precautions needed to prevent drowning.
- How to properly lift without causing back injuries.
- The safety precautions involved with equipment maintenance.
- The hazards and control measures for noise.
- The types and proper use of fire extinguishers.
- Lockouts and outline basic electrical safety.
- The resources to educate yourself on specific hazards you may encounter.

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Sessional Work

The sessional work will be a combination of written assignments, class quizzes, presentations, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

WHP 412: DELIVERING HEALTH PROMOTION INTERVENTIONS

Course Description

- This course will provide an introduction to the methods used in the development and evaluation of public health programs.
- Students will learn procedures for the systematic identification of community health needs and for the use of this information in the framing of program goals and objectives. Approaches for the identification of existing interventions and/or the development of new interventions to address program objectives will be covered.

Course Objectives

Upon completion of this course, student should be able to:

1. Describe the methods to assess individual and community level needs for health education.
2. Identify and obtain existing effective health promotion interventions.
3. Plan health education strategies, interventions, and programs.
4. Describe the resources and steps needed to implement health education strategies, interventions, and programs.
5. Conduct selected elements of evaluation and research related to health education and identifies additional sources of expertise needed to conduct evaluation.
6. Administer health education strategies, interventions, and programs.
7. List and describe the community collaborations required to successfully deliver a health promotion intervention.

Course Content

- 1. Introduction to Health education and Health Promotion**
 - Introduction to Health Promotion Interventions
- 2. Understanding the need of Health education for Individual and Community**
 - Role of Community in Health Promotion Strategies
 - Effective Health Promotion Interventions
- 3. Resources and steps needed to implement health education strategies**
- 4. Evaluation and Monitoring of Health Promotion Strategies**

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. Bartholomew, L. K., Parcel, G. S., Kok, G., Nell, H. & Fernandez, M. E. Planning Health Promotion Programs: An Intervention Mapping Approach [Kindle Edition].
2. Piper, S. (2009). Health Promotion for Nurses: Theory and Practice. ISBN-10: 0415462630.
3. Naidoo, J. & Wills, J. (2000). Health Promotion: Foundations for Practice (Public Health and Health Promotion).

WHP 413: PROFESSIONAL ETHICS

Course Description

- This Course focuses on the study of ethical principles and of ethical problems in the professional world. The course is intended to provide students with the ability to analyze ethical situations within a specific profession such as health care, business, and public administration.
- The course includes lectures, discussions, case analyses, the study of codes of ethics, and individual projects.

Course Objectives

After studying this course, student should be able to:

1. Ability to engage in informed critical reflection on the nature of professionalism and ethical challenges inherent in professionalism
2. Knowledge of prominent normative ethics frameworks – consequentialist,
3. deontological, virtue, and contractualism
4. Awareness of types of ethical challenges and dilemmas confronting members of a range of professions (business, media, police, law, medicine, research)
5. Ability to bring to bear ethical analysis and reasoning in the light of normative ethics frameworks on a selection of ethical challenges and dilemmas across the chosen range of professions
6. Ability to relate ethical concepts and materials to ethical problems in specific professions and professionalism
7. Ability to research appropriate material in relation to set questions in writing essays meeting the highest standards of rigor and clarity

Course Content

1. **Understanding of the ethical problems and principles.**
 - Understanding of the professionalism and ethics of other professions
 - Benefit from a critical scrutiny of their own ethics by those from other professions.
 - The general principles of professional ethics.
 - Ethics of several major professions: Business Ethics, Media Ethics, Police Ethics, Medical Ethics, Legal Ethics, and Research Ethics.

2. The nature of a profession, professional codes of ethics

- Confidentiality
- Whistleblowing.

3. The responsibility of business to the environment

- Uses and abuses of human research.

4. Animal ethics in research.

Teaching-Learning Strategies

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings

1. City Law School. (2010). Professional Ethics fifteen edition
2. Facts On File, Inc. (2014). Professional Ethics and Etiquette
3. Rowan, J. & Zinaich, S. (2003). Ethics for the Professions.
4. Oakley, J. & Cocking, D. (2001). Virtue ethics and professional roles. Cambridge University Press.
5. Chadwick, R. F. (ed.) (1994). Ethics and the professions, Avebury.
6. Callahan, J. C. (1998). Ethical issues in professional life, Oxford University Press.
7. Goldman, A. H. (1980). The moral foundations of professional ethics, Rowman and Littlefield.

ASSESSMENT EVALUATION AND EXAMINATIONS:

Sr. No.	Elements	Weightage
1.	Mid-term Assessment	35%
2.	Sessional Marks on Presentation, Attendance, Assignments and Participation	25%
3.	Final-term Assessment	40%

A semester comprises of 16-20 weeks. There is midterm examination after 8 weeks of study and final examination after 16 weeks of study. Promotion to the next semester will be based on results of both semesters and decision to be taken at the end of the semester. If a student fails in a course, he/she will be provided two chances to pass a course by registering for the course again in the same semester of the subsequent years. If a student fails to pass the course after availing these two chances, he/she will be dropped from the rolls of the program.

GRADING SYSTEM:

PERCENT MARKS	LETTER GRADE	GRADE POINTS
85 & Above	A	4.00
80-84	A-	3.70
75-79	B+	3.30
70-74	B	3.00
65-69	B-	2.70
61-64	C+	2.30
58-60	C	2.00
55-57	C-	1.70
50-54	D	1.00
Below 50	F	0.00

THESIS WRITING

Students have to write a 10,000 words public health thesis of any topic of ‘Occupational Health, Safety Promotion and Risk Management’ and submit it to their designated supervisor before final term examination otherwise student will not be allowed to appear in final term examination (8th semester). This will carry 6 credit hours as prescribed by HEC for WHP. The conduct and assessment of the thesis will be as per Punjab University rules/policies.