

CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY
FACULTY OF MEDICAL SCIENCES
ASHOK & RITA PATEL INSTITUTE OF PHYSIOTHERAPY
BPT – Semester IV
PT192 OCCUPATIONAL HEALTH & ERGONOMICS

CREDIT HOURS:

Hrs. / Wk.			Credits			Total Marks		Total
L	P	T	L	P	T	Theory	Practical	
2	-	2	2	-	2	100	-	100

A. OBJECTIVES OF THE COURSE:

This course will introduce students to the basic concept of occupational health & Ergonomics Assessment and management for prevent the Occupational Hazards.

B. OUTLINE OF THE COURSE:

Sr. No.	Title of the unit	Minimum number of hours
1.	OCCUPATIONAL HEALTH	04
2.	ERGONOMICS	08
3.	ENVIRONMENTAL FACTORS & ERGONOMICS	04
4.	OCCUPATIONAL ERGONOMICS	08
5.	OCCUPATIONAL ERGONOMICS IN SPECIAL AREAS	08

Total hours (Theory) : 32

Total hours (Practical): 00

Total hours: 32

C. DETAILED SYLLABUS:

1	OCCUPATIONAL HEALTH	04 hrs
1.1	Introduction.	
1.2	Objective & basic concepts of Occupational health.	
1.3	Reorganization of health hazards.	
1.4	Early detection of Occupational diseases.	
2	ERGONOMICS	08 hrs
2.1	Introduction to ergonomics, what is ergonomics Common injuries Definitions of terms: Ergonomics, Ergonomists. Social significance of ergonomics. Biomechanical, Physiological & Anthropometric factors related to ergonomics. Ergonomical aspects of Postures like Sitting, Standing, Hand & arm postures. Ergonomical aspects of movements like Pushing, Pulling, Lifting & carrying.	
2.2		
2.3		
2.4		
3	ENVIRONMENTAL FACTORS & ERGONOMICS	04 hrs
3.1	Noise, Light, Vibration, Climate & Chemical substances.	
4	OCCUPATIONAL ERGONOMICS	08 hrs
4.1	Work environment and control measures in work place.	
4.2	Prevention of occupational diseases and accidents.	
4.3	Effects of lifestyle and behavior on health.	
4.4	Health education in the workplace.	
5	OCCUPATIONAL ERGONOMICS IN SPECIAL AREAS	08 hrs
5.1	Industrial worker.	
5.2	Agriculture and rural areas.	
5.3	Working women.	
5.4	IT – BPO industries.	

D. INSTRUCTIONAL METHOD AND PEDAGOGY:

- ❖ Interactive class room sessions using black-board and audio-visual aids.

- ❖ Using the available technology and resources for E- learning.
- ❖ Students will be focused on self-learning, practical learning which will be guided and facilitated by the faculty.
- ❖ Students will be enabled for continuous evaluation.
- ❖ Case study, group discussions, role-plays and simulation exercises.

E. STUDENT LEARNING OUTCOMES/OBJECTIVES:

At the end of the course, the student will be able:

- ❖ To review the basics of Occupational health & Ergonomics
- ❖ To understand the problem associated with workplace.
- ❖ To clinically correlate the Occupational hazards and Ergonomics.

F. RECOMMENDED STUDY MATERIAL:

TEXT BOOKS:

1. Benjamin O. ALLI, Fundamental Principles of Occupational Health and Safety, Second edition, ILO International Labour Organization 2008
2. M. Rabiul & Ahasan: Occupational Health, Safety and Ergonomic issues in small and medium- sized Enterprises in a Developing Country. OULU 2002
3. Waldemar Karwowski & William S. Marras: Occupational Ergonomics – Design and management of Work System; CRC Press, Boca Raton, FL, 1999
4. Occupational Health : A manual for primary health care workers; WHO-EM/OCH/85/E/L