

COURSE DESCRIPTION			
Program	Diploma in Engineering and Technology / Commercial Practice / Management		
Course Title	Health and Physical Education		
Course Code	1009	Semester	I
Type of Course	Lab	Contact Hours	30
Teaching Scheme (L: T:P:R)	0:0:2:0	Credits	0
CIE Marks	60	ESE Marks	40

Introduction

This course is designed to promote the holistic development of diploma students by enhancing their physical fitness, mental well-being, and social skills. It emphasizes active participation in physical activities, yoga, and sports to build lifelong healthy habits, improve teamwork, and develop discipline and leadership qualities essential for professional and personal life.

Course Objectives

1	To develop awareness about physical fitness and healthy lifestyle practices.
2	To train students in basic physical exercises, yoga, and sports activities
3	To create a safe, progressive, methodical, and efficient activity-based plan to enhance improvement and minimize risk of injury.
4	To promote physical activity as a lifetime pursuit and a means to better health.

Course Pre-requisite

Topic	Course code	Course Title	Semester
Warming up and warming down, physical training, aerobic dance, flexibility, yoga, weight training, physical fitness, sports and games.		Health and Physical Education	High School

Course Outcome

CO	Course Outcome	Blooms Taxonomy Level
CO1	Introduction to health and physical education, perform warming-up and warming down exercises.	Apply
CO2	Apply basic physical training methods to improve stretching and flexibility exercises correctly.	Apply
CO3	Demonstrate selected yoga asanas and pranayama techniques for wellness.	Apply
CO4	Participate effectively in sports and games, demonstrate team work and discipline, muscular strength development.	Apply

CO-PO mapping

COURSE ARTICULATION MATRIX											
Course Outcomes	PROGRAM OUTCOMES										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	-	-	-	-	-	2	2	2	2	-	2
CO2	-	-	-	-	-	2	2	2	2	-	2
CO3	-	-	-	-	-	3	3	2	2	-	3
CO4	-	-	-	-	-	3	3	3	2	-	3
Total	-	-	-	-	-	10	10	9	8	-	10
Correlation Level	-	-	-	-	-	2.5	2.5	2.25	2	-	2.5

Legends: 1 - Low; 2 - Medium; 3 - High; No Correlation - "-"

Teaching and Assessment Scheme

Teaching Scheme/Week				Self-learning (SS)/Week	Total Hours/Semester	Credits C	Examination Scheme					
							Theory			Practical		
L	T	P	S				CIE	ESE	Total	CIE	ESE	Total
1	0	1	0	2	30	0				60	40	100

L: Lecture (One unit is of one-hour duration with one credit), T: Tutorial (One unit is of one-hour duration with one credit), P: Practical (One unit is of one-hour duration with 0.5 credit), S: Project (One unit is of one-hour duration with 0.5 credit) SS: Self-Learning, CIE: Continuous Internal Evaluation, ESE: End Semester Examination

Detailed Syllabus

Expt No.	Experiment name	Practical Outcome	Mapped CO	Taxonomy Level	Instructional Hours
Module I					
1	Introduction to Health and Physical Education	Explain the meaning, aims, and objectives of physical and health education and describe their importance in daily life.	CO1	Understand	1
2	Warm-up and Cool-down Exercises	Demonstrate appropriate warm-up and cool-down exercises and explain their effects on muscular, skeletal, and cardiorespiratory systems.	CO1	Apply	1
Module II					
3	Flexibility Exercises - Basics	Describe posture, its types, and identify major bones and muscles involved in physical activity.	CO2	Understand	1
4	Flexibility Exercises - Practice	Perform various stretching exercises and apply appropriate techniques to improve flexibility.	CO2	Apply	1
5	Flexibility Exercises - Benefits	Analyze the benefits of different types of stretching exercises in improving flexibility and preventing injuries.	CO2	Apply	2
Module III					
6	Yoga Asanas and Pranayama	Demonstrate selected yoga asanas and pranayama techniques and explain their preventive health benefits on body systems.	CO3	Apply	4
Module IV					
7	Weight Training and Health Awareness	Analyze health risk behaviours, hypokinetic diseases, and nutritional practices to promote a healthy lifestyle and improved social well-being.	CO4	Apply	4
8	Weight Training and Health Awareness	Explain the effects and benefits of weight training on the muscular and skeletal systems of the human body.	CO4	Apply	4
9	Sports and games	Explain the rules, regulations, and fundamental skills associated with different sports and games.	CO4	Understand	4
10	Sports and games	Apply mental and social skills acquired through sports participation to solve real-life problems.	CO4	Apply	4
11	Sports and games	Apply qualities such as leadership, coordination, punctuality, cooperation, fairness, unity, and tolerance while working in teams and diverse environments.	CO4	Apply	4

Open-ended experiment

Objective:

To encourage creativity, innovation, and application of knowledge by allowing students to design and perform an experiment beyond the prescribed list, using the concepts learned during the course.

Description:

At the end of the laboratory course, each student (or group of students) shall undertake one open-ended experiment. In this activity, students are expected to conceive, design, and implement an experiment of their own choice related to the course outcomes. The aim is to apply theoretical knowledge and laboratory skills to a new or practical problem not explicitly covered in the regular experiments.

Students may choose to:

Modify or extend an existing experiment to explore additional parameters or behaviors.
Integrate multiple concepts from the syllabus into a combined application.
Design a mini-setup or prototype to demonstrate a principle or solve a simple engineering problem.
Perform a comparative study or performance analysis of a circuit/system/component.

Student Activities for Self-Learning

Week	Self-Learning description	Hours
Module I		
1	Recall and describe the concepts of warm-up and cool-down based on prior knowledge.	2
2	Perform the warm-up exercises practiced in class and demonstrate correct techniques.	2
3	Explain the definition of health as given by WHO after conducting an online search.	2
4	Complete a test to assess understanding of basic health and physical education concepts.	2

Module II		
5	Participate in and demonstrate minor games already known.	2
6	Explain the benefits of participating in minor games.	2
7	Identify and summarize the benefits of yoga through online resources.	2
8	Complete a test to evaluate learning related to games and yoga.	2
Module III		
9	Define and explain the concept of “Asana” using online sources.	2
10	Prepare and present an assignment on minor games.	2
11	Perform and demonstrate the asanas learned in class with correct posture.	2
12	Complete a test to assess knowledge of yoga practices.	2
Module IV		
13	Identify and explain major hypokinetic diseases through web research.	2
14	Recall and report the number of bones in the human body using online resources.	2
15	Explain different weight training methods based on web research.	2
Total Self-Learning hours		30

Learning Resources

TEXT BOOK			
Sl. No.	Title	Author	Publication
1	Anatomy for Strength and Fitness Training	Mark Vella	New Holland Publishers Ltd.
2	Fitness for Life	Charles B Corbin and Guy C Le Masurier	Human Kinetics Publishers, Inc.
3	Asana Pranayama Mudra Bandha	Swami Satyananda Saraswati	Yoga Publication Trust, Munger, Bihar
4	Light on yoga	B. K. S. Iyengar	George Allen and Unwin

REFERENCE			
Sl. No.	Title	Author	Publication
1	Health and Physical Education. New Delhi	Puri, K, Chandra	Surjeet Publication
2	Creating a Life of Health and Fitness London: Allyn and Bacon Inc.	Dr Jerrold S. Greenberg, & George B. Dintiman	Benjamin Cummings (Pearson) Allyn & Bacon
3	Fit and well	Fashey, Tomas D, Insel, Paul M, and Roth, Walton T	New York: Mc Graw Hill Inc

WEB RESOURCES		
Sl. No.	URL	Modules Covered
1	http://www.bodybuilding.com	
2	http://www.livestrong.com/get-fit	
3	http://www.yogabasics.com	
4	http://exrn.net/WeightTraining	
5	https://sports.knowhow.com/rules/index.html	

Major Equipment/Instruments/Components required for a batch of 30 students

Sl. No.	Particulars	Specifications	Quantity
	NIL		

Major Software required for a batch of 30 students

Sl. No.	Particulars	Specifications	Quantity
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	NIL		
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Assessment Methodology - Lab

Mode	Attendance	CE	CA1	CA2	OEE	ESE
		Continuous evaluation	Practical test (first half of experiments)	Practical test (second half of experiments)	Open-ended experiment	Practical
Duration			2 hours	2 hours		3 hours
Exam mark		50	40	40	50	40
Converted to			15	15	10	
Marks	5	30			10	40
Total marks		60				40
Tentative schedule	End of semester	Every lab slot	7th week	14th week	15th week	

Scheme of Evaluation - Practical (Continuous Internal Evaluation)

Sl. No.	Criteria	Description	Marks
1	Preparation & Punctuality	Attendance, timely submission of record, pre-lab preparation, understanding of experiment objectives and theory.	5
2	Practical Work	Ability to identify the exercise by name /equipment and doing it with perfection	10
3	Minor Games	Participation , team spirit etc.	10
4	Test paper	Theory part taught in class	10
5	Viva Voce / Concept Understanding	Clarity of theoretical concepts, ability to answer questions related to practicals.	10
6	Workmanship, Discipline & Teamwork	Gym discipline, care of instruments, teamwork, attitude, and safety practices.	5
Total			50

Scheme of Evaluation - Practical Test & End Semester Evaluation

Category	Things to evaluate	Marks
Yoga/Aerobics	Perfection in doing the activity	10
Physical fitness test	Cardi Vascular endurance/ Strength/ Flexibility/ Speed/ Muscular endurance/ power/ balance	10
Viva Voce	What the students got from the related theoretical and practical knowledge.	10
Record	Completion & neatness of practical record. Proper certification by faculty.	10
Total		40

Scheme of Evaluation - Open-ended experiment

Category	Things to evaluate	Marks
Originality and Relevance of the Idea	Assesses how creative, innovative, and relevant the chosen experiment is to the course objectives.	10
Clarity of Objectives and Experimental Plan	Evaluates how clearly the student defines the aim, scope, and systematic plan of the experiment.	10
Correctness of Execution and Data Recording	Checks the accuracy, safety, and neatness in performing the experiment and recording observations.	10
Analysis, Interpretation, and Presentation of Results	Measures the student's ability to analyze data, interpret outcomes, and present results logically.	10
Teamwork and Innovation Demonstrated	Judges the level of collaboration, initiative, and creativity shown during the experiment.	10
Total		50