

YMCA COLLEGE OF PHYSICAL EDUCATION OPTIONAL COURSES/ CERTIFICATE COURSE

1. Course Learning Outcomes (CLOs):

- To enable student to become competent and committed professionals willing to perform.
- To make student to use competencies and skills needed for becoming an effective Instructor
- To enable student to understand principles training
- To acquaint student with the practical knowledge of giving instructions
- To enable student to understand duties and responsibilities
- To enable student to prepare the programmer
- To enable students to understand and explain the effect in the body.

2. Duration of the Course: The duration of the course shall be of 12 classes. Each working day shall consist of two hours of theory and Practical Work (Morning – 2 hours each session) and one hour & one hour of theory in between.

3. Eligibility for Admission: All students of YMCA will be Optional to select the course.

4. Standard of passing:

1. A student has to obtain minimum 40% of marks in each theory paper & 50% of marks in aggregate i.e. Part-I examination.
2. A student has to obtain 50% of marks in practical examination separately in external assessment & internal assessment i.e. Part-II and Part III examination.
3. A student has to obtain 50% aggregate marks together in Part –I, Part -II & Part-III.

5. Award of class: Class will be awarded to the students at the end of the course on the basis of aggregate marks obtained by him/her in each part separately.

Sl. No.	Class	Part I	Part II	Part III
1	A	70% & above	70% & above	70% & above
2	B	60% & above but less than 70%	60% & above but less than 70%	60% & above but less than 70%
3	C	55% & above but less than 60%	55% & above but less than 60%	55% & above but less than 60%

CERTIFICATE IN GYM INSTRUCTOR

Theory

Paper I: Anatomy physiology and sports medicine Skeleto-muscular System

Introduction to Bone and Muscles-Structure of bone and Muscles-Functions of bone and Muscles-Types of bone and Muscles-Muscle contraction-Types and Classification of Joints-Anatomy of Joint-Effect of exercise on skeleto- muscular system

Cardio respiratory systems

Athletes Heart-Supply of blood to the organs-Carrying oxygen-Blood pressure (systolic/Diastolic)-Respiration mechanism-VO₂ Max-Tidal Volume-Lung capacity-Respiratory rate-Effect of exercise on cardio-respiratory system

Injuries and their management

Types of injuries (Visceral, soft tissue and musculo- skeletal injuries, body parts)-Low back problems and management stretching and strengthening exercises for Back problems-Common & Specific Sports Injuries-Immediate and Later Management of Injuries

First aid

Definition-RICE therapy-Other Methods, Prevention and Care of Injured Athlete-Importance

Postural Deformities

Types- Causes-Remedies & Prevention-Rehabilitation and Therapeutic Modalities-Hydro-collateral pack (Hot and Cold)-Hydrotherapy (Whirlpool)-Diathermy-Ultrasound-Electrical muscle Stimulation-Combination of Ultrasound and Electrical muscle stimulation-Cryokinetics, cold spray Contrast bath, paraffin bath, infrared and ultraviolet rays.-Rehabilitative exercise Nutrition-Food content-Basic principles-Balance diet-Calories & diet-Exercise & diet-Supplements

Biomechanics & Kinesiology:

Introduction-Definition-Application of Bio-mechanics-Analysis of Fundamental Movements and skills-Lever-Types of lever-Principles of Lever

Motion-Types-Laws of motion-Equilibrium-Equilibrium and its principles-Force-Force-Friction-Center of gravity

Kinesiology-Meaning and definition-Types of movement-Plane & axial movement-Muscular analysis-Posture and Movement analysis (Locomoters, non-locomoters and manipulative)

Fitness & Exercise

Physical fitness factors-Cardio vascular endurance-How to develop C. V. endurance through wt. training (Circuit training) Methods of developing Cardio vascular endurance Aerobic & Anaerobic Capacity

Muscular Strength

Type of Strength-Factors affecting Strength Methods of Improving Strength

Muscular endurance

Meaning of Muscular endurance Different Muscles & Muscular endurance Repetitions

Sets & Improvement

Flexibility

Meaning of Flexibility Importance of Flexibility Development & Maintenance of Flexibility

Body composition (% Fat) Body Mass Index (BMI) Controlling % Fat

Motor fitness factors: Exercises-Effect of exercise on different systems

Training and training methods-Definition of training and its Principles Load and Adaptation-Factors of load-Load & adaptation-Over load-Recovery Scheduling (Short term & long term training-Micro Cycle-Meso Cycle-Macro Cycle-Total Load & Recovery-Total sets & Reps-Total exercises

Training Methods:

Circuit Training Method- Station Training Method-Plyometric Training Method Training for different factors- Cardio vascular endurance-How to develop C. V. endurance through wt. training (Circuit training) Methods of developing Cardio vascular endurance

Aerobic & Anaerobic Capacity- Muscular Strength Methods of Improving Strength Muscular endurance-Methods of Improving muscular endurance-Repetitions – Sets & Improvement-Flexibility - Development & Maintenance of Flexibility

Body composition (% Fat)- Body Mass Index (BMI) - Controlling % Fat OPT- Psychological training- Training in different environment and its effects- High Altitude, cold and hot etc.

Management, Test, Measurement and Evaluation: Communication skills and appearance

Public relation Supervision and administration Facility management- Introduction to exercise equipment- Types of exercise equipment- Placement of equipment- Handling and Utilization of equipment- Counseling

Test, Measurement and Evaluation Concepts of tests

Teacher made tests- Paper pencil tests- Fitness testing- Physical testing- Physiological testing- Anthropometric measurements

PRACTICAL

Warming up and cooling down: General exercise- Stretching exercise- Specific exercises Conditioning exercises- Exercises: Basic Concept: Prime movers: Various training methods for fitness: Training Programme: Daily Analysis, Measurement and Record of athlete.

CERTIFICATE IN MARCHING BAND

General Objectives of the Course: All of you are talented, skilled musicians and intelligent, well-educated individuals who will be a welcome addition to our profession. This course is designed to introduce you to the fundamental principles of effective instruction with respect to the contemporary marching band and to provide you with opportunities to practice applying these skills in learning how to prepare, organize, teach, and rehearse this type of ensemble. In addition, I hope that you will be challenged to examine your own expectations, aspirations and

biases regarding the role of the marching band in music education. Through practical assignments, guest lecturers, and multimedia presentations, you will gain a command of the terminology, pedagogy, and structure of the marching band activity.

Introduction to the class, definition of various marching styles and their components. Discussion about the two necessary texts.

Organization and instrumentation. What is your desired balance of winds, percussion, guard groups. Field Commanders, band officers: purpose, responsibilities (Assignment 1), develop a list of responsibilities for officers and field commanders. Outline format, place in supplemental binder or supplemental flash drive).

Where do we begin? An introduction to the drill design software, Pyware. Guided instruction involving how the program works, the multiple facets that it possesses besides simply writing marching band drill.

Demonstrate your ability to open the program, navigate to the documents tab and make alterations to the field (movement of hash marks, concentrated area focus). Additionally, demonstrate the ability to set page tabs and movement tabs, insert dialogue boxes and label players.

Squads – Function, organization, rationales. Chapters 4, 5 +8 multiple-option tech. text (Assignment 3) students will be responsible for plotting a 36 member band (6X6 block) from opening block through three transitions on drill paper, the common drill plotting technique for squad-style bands. Students will also learn and interact with the squad function on the Pyware program. * this will probably require more than two classes. Outcomes (drill design both on paper and via computer will be graded and placed in supplemental notebook/flash drive.

Quiz one: elements of squad-style marching bands, leadership models, Pyware basics.

Block Band (military style) and Show-Style Band. Chapter 7, multiple-option tech. text– Functions, organizations and rationales. For show-style, there will not be as much technology use as it is not common for this style.

(Assignment 4) students will chart and manipulate a 64 member (8X8) marching band and demonstrate the ability to disassemble and reassemble the block. Minimum of five pages of drill. Writing. Models will be animated for assessment. Each drill page must have instrumentation labels and dialogue boxes. Tabs for pages and sets will also be analyzed.

Delving into the artistic: corps style/competitive design. Lecture and demonstration of the principles that guide this type of design. Will probably watch some Drum=Corp video to better explain the process of visual and musical synthesis. Chapters 2+3, Techniques of Marching

Band Show Design. Discussing the philosophy of morphing as opposed to sets. Limitations of the physical body verses the animations on the computer.

The opening set. Techniques of Marching Band Show Design Review of placement, labeling and tab sets. Use of the 3-D function. What benefits does this provide for the director?

Plot a band, between 50 and 60 players and 10 color guard, and plot two moves (pages) each move can be between 16 and 32 counts (Instruments and guard must be labeled, instructions must be in the dialogue box.

Quiz 2, Block Band, Show style band, Corps style Band Element synthesis: From this point on, you will choose a style of marching band drill that you would like to pursue, choose a piece of marching band music (use my library), define your instrumentation, and begin the process of writing a marching band drill for an entire piece of music. This will be a final project, submitted during finals.

Organization. Band Camp, what staff, reserving space. Camp away from home vs. at home. Developing a sense of pride from your musicians. All Great Leaders are Great Motivators! All Great Educators are Great Motivators! Techniques of Marching Band Show Design As educators our primary goal is to get our students to want to learn.

Construct a schedule for a one-week band camp from morning through evening. When will you do what? Your schedule will be added to your supplemental notebook/Flash drive and you will also present to the class your rationales for your decisions.

Guest speakers High School band directors who use varied styles and why they have chosen to do so.

Working with band parents (boosters) Defining their purpose, guiding their assistance. Review of final projects. In-class Q+A opportunities.

The Marching Band is the single most visible musical ensemble in most schools and colleges. It's success can be the impetus for community, administrative and parental support, fostering your entire program.

CERTIFICATE IN SILAMBAM

Fundamentals and Methods of Silambam

Definition: Silambam – Etymology – Silambam – Martial Art – Duel – Combat – Need – Scope – Philosophy – Silambalogy

Misconception – Conversion of Silambam Fencing as a Combative Martial Sport since 1940 AD – “Quarter Staff” of England Akin to Silambam Fencing-Benefits of Silambam Fencing.

Aims and Objectives as per the charter of the International Silambam Fencing- Association founded on the 14th December 1975 – Benefits: As 22 Doctors in Physical Education in India and USA.

Origin and Development of Silambam Fencing from 3500 BC to 1940 AD (British Period) - Spurt of Growth from 1940 AD in India to 1977 AD in USA– Research Contributions in Colleges of Physical Education in India and USA

Rules of Combat – Officiating Techniques of Attack and Defence – Techniques and Technologies reaching the Zenith by 2005 AD - Fundamental Attack and Defence Tactics

Practical

Speedy Foot-work Pattern: One step Move – Forward and Rearward – Two Step move – Forward and Backward – 3 Circle and 4 Circle moves without and with the Cane Bamboo Weapon – Insist on Speed and accuracy of Performance

Military Swings of Cane-Bamboo Weapon from Squat / Half standing crouch position / a standing position – “Skip-step” to attack and defence patterns

Learning to change various grips on the Stave – According to exigencies – Pivot turns
Various Patterns of Feinting – “Sliding” the weapon on the opponents stave - technique.

One to One attack – One to two attack strategies – Military swing attack – One against Five Melee attack and defence

Short Sprints for speed – Shuttle Runs – “On the Spot” speed running - Silambam Fencing basic Foot-work (Suvadhu Muraigals) - Cartwheel Moves – Leaps: upward and land gently –Pivot-turns (Clockwise and anti-clockwise) – Pivot-turns with jumps combined
Bounce (Not Entirely springing off the Floor, but Just getting the heels off – Stand still position :
Swing the left leg over the right leg – swing the right leg over the left leg – Swing the left leg forward and backward (without bending the left at the knee) – Swing the Right leg forward and backward (without bending the right leg at the knee) - Hop forward for 2 feet and land with balance – Hop for 2 feet rearward (without losing balance) – Hop Sideward to the left and right side (land with balance). Hold the Silambam Stick while doing the above exercises

Battery of exercises for a good range of Flexibility of Joints: - Ankles-knee – hip - Wrist – Elbows – Shoulder joints – Neck joint –

Using of Gadgets to gain accuracy – Speed – Agility – Co-ordination (Examples: Rubber-Man – Tight Corner – Hitting Bulls-eye targets – Zig-zag run ways around skittles
Sparring: - In pairs – against threes – against four corner-men – one against five (combatants around a circle) – Offence: Progressive fundamental strokes (5 to 8 kinds) – Defence: Progressive fundamental strokes (5 to 8 kinds) – Free sparring (Atwill method)

CERTIFICATE IN ORIENTATION AND MOBILITY

1. Effect of visual impairment on growth and development: Physical, Motor, Language, Socio-emotional, and Cognitive development
2. Effects of Visual Impairment on Personality Development - Verbalism & Mannerism
3. What is Orientation and Mobility?
4. Orientation and Mobility - Definition, Importance and Scope
5. Basic Terminologies Associated with O&M: Trailing, Landmarks, Clues, Cues, Shoreline, Squaring Off, Clockwise Direction, Sound Masking, Sound Shadow
6. Roles of Other Senses in O&M Training
7. Orientation and Mobility for low vision children
8. Addressing orientation, mobility & educational needs of students with deaf-blindness
9. Special Responsibilities of Special Teacher/Educator with reference to O&M Training
10. Blindfold - Rationale and Uses for the Teacher
11. Human-Sighted Guide Techniques
12. a) Cane Travel Techniques and Devices Part I; b) Cane Travel Techniques and Devices Part

13. Independent living skills - Meaning, Importance, Components
14. Training in Independent Living Skills - Self Care, Gait and Posture, Personal Grooming, Eating Skills and Etiquette, Identification of Coins and Currency Notes & Basics of Signature Writing.
15. Daily living skills - assessment of needs and techniques of teaching age appropriate daily living skills
16. Sensory efficiency - importance and procedures for training auditory, tactile, olfactory, gustatory, kinesthetic senses and residual vision
17. Techniques of teaching social interaction skills, leisure and recreation skills and self – determination.
18. Adaptation of Physical education activities and Yoga
19. Adaptation of Games and Sports - both Indoor and Outdoor
20. Agencies for sports -Visually Impaired

CERTIFICATE IN YOGA

COURSE OVERVIEW:

In view of today's global problems, the course of yoga is compulsory, as mental and physical stress is increasing everywhere, students will benefit from this course. Just as the word yoga means to connect, the students will also have loyalty and engagement towards their duty towards society and our society will move towards a positive thinking. WHO has also emphasized the role of yoga in prevention therapy? For this reason, the popularity of yoga will increase globally. Yoga is a new topic for the international community, which is why the world is trying to understand yoga more. For this reason, yoga has very good opportunities internationally.

OBJECTIVES OF THE COURSE: Following are the main objectives of this course.

- To enable the student to have good health.
- To practice mental hygiene.
- To possess emotional stability
- To integrate moral values.
- To attain higher level of consciousness.

SALIENT FEATURES: Yoga course is cost effective. Another very important feature for this course is that students of all categories can do this course very easily

Suggested list of Practical:

1. Practice of Sukshnavyayama
2. Practice of Surya Namaskar
3. Practice of Asanas
4. Practice of Halasana

5. Practice of Pawanmuktasana
6. Practice of Bhujangasana
7. Practice of Shalabhasana
8. Practice of Gomukhasana
9. Practice of Vakrasana
10. Practice of Ustrasana
11. Practice of Mandukasana
12. Practice of Sasankasana
13. Practice of Janusirasana
14. Practice of Virkshasana
15. Practice of Padhastasana
16. Practice of Nadi Shudhi
17. Practice of Dhyana Mudra
18. Meditation
19. Project on Patanjali Yoga Sutras
20. Yoga effect on Human Body
21. Steps of Sithaili Pranayama
22. Steps of Ujjayai Pranayam
23. Steps of Paschimottansana
24. Conducting Yoga project on common diseases Yoga sessions on suryanamaskar
25. Asanas board
26. Yoga for Weight loss
27. Improved Posture. Let's face it; all of us have slouched at some time or another Increased.
28. Flexibility of body through Yoga.
29. Practical Asana, Pranayama, Meditation, Mudras and Bandha

**CERTIFICATE IN BHARATHIYAM
(CLO)**

1. General Objectives of the Course:

- To enable student to become competent and committed professionals willing to perform as a good physical Education Teacher
- To make student to use competencies and skills needed for becoming an effective become expert in Mass display
- To enable student to understand principles of fitness training
- To acquaint student with the practical knowledge of Aerobics.
- To enable student to understand Rhythmic Gymnastics – Rope – Ball – Ribbon – Hoops.
- To enable student to prepare end Choreograph – Step Aerobics, Aerobics with Probes
- To enable students to understand and merge music to the Choreography
- To enable students to understand the Psychology of the Parents, Teachers, and Students.

Following display items as to be learned and choreograph with music

1. Lezium
2. Pole Drill
3. Bamboo Dance
4. May Pole
5. Rhythmic Gymnastics – Rope – Ball – Ribbon – Hoops.
6. Step Aerobics
7. Aerobics with Probes
8. Yog Pyramid
9. Human Pyramid
10. Figure Marching
