



Session 2

Lecturer:

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C-PE 2 (3 units) **PATHFIT II Exercise-based Program**

Spring Semester 2024



Components of Physical Fitness and The Principles of Exercise



Session Objectives:

- ✓ Describe the fundamentals, concepts and components of physical fitness and physical activities derived from the CHED CMO 39 and 40 series of 2021.
- ✓ Describe the significance of physical activities in promoting the holistic development of learners.



Session Objectives:

- ✓ Respect each other's opinions/ perspectives/ views about the topics.
- ✓ Input insights about the best ways to promote lifelong fitness among learners.



Health-related Fitness Component
and
Performance-related or Motor Skill-related
Fitness Component.

Health-related Fitness Components

- **Cardiovascular Endurance** – the ability of the heart, lungs, and vascular system to supply oxygen and nutrients to muscles during or while performing an activity.



Figure 1: Photos owned by the author. In the photos: Flores, J., Dizon, R., Naranjo, R., Allam, R., Sembrano, L., & Tiongson, J.

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Health-related Fitness Components



Figure 2: Photos owned by the author.
In the photos author's PE students



- **Muscular Strength** – the ability of the muscles to exert maximum effort.
- **Muscular Endurance** – the ability of the muscles to exert force for an extended time.

Health-related Fitness Components

Flexibility – the ability of the various joints and muscles of the body to move through their full range of motion.



Figure 4: Pre & Post Work out Flexibility Exercise by HealthKart.
(Source: Nehra, A.. 2023:Online)

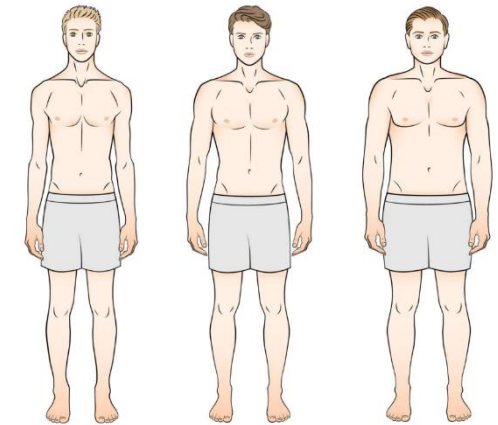


Figure 3: Sheldon's Constitutional Theory: Somatotyping.
(Source: Nickerson, C. 2024:Online)

Body Composition – the proportion of lean body mass to fat body mass.

Motor Skill-related Fitness Components

- **Agility** – the ability to change direction quickly while the body is in motion.



Figure 5: Photos owned by the author.
In the photos author's PE students

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Motor Skill-related Fitness Components

Balance – the ability to maintain one’s equilibrium in relation to the force of gravity.

Static balance – the ability to maintain balance in a fixed position.

Dynamic balance – the ability to balance while the body is in motion.



Figure 6: Photos owned by the author.
In the photos author’s PE students

Motor Skill-related Fitness Components

Coordination – the ability to integrate separate motor systems with varying sensory modalities into efficient movement.



Figure 7: Photos owned by the author.
In the photos author's PE students

Motor Skill-related Fitness Components

Power – the ability to perform one maximum effort in as short a period as possible.



Figure 8: Photos owned by the author.
In the photos is the author and her PE students and players.

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Motor Skill-related Fitness Components

- **Reaction time** – the amount of time elapsed from the time the senses signal the need to move to the first movement of the body.
- **Speed** – the ability to move from one point to another in the shortest time possible.



Figure 8: Photos owned by the author.
In the photos are the author's players.



FUNDAMENTAL BODY MOVEMENTS

1. Locomotor
2. Non-locomotor Skills
3. Manipulative Skills
4. Specialized Skills



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FUNDAMENTAL BODY MOVEMENTS CONCEPTS and FORMS

1. Locomotor Skills : these are the movements that requires a person to move from one place to another or to simply change directions when moving.

Examples:

walking,

skipping,

jumping,

hopping,

leaping,

sliding and

galloping.



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FUNDAMENTAL BODY MOVEMENTS CONCEPTS and FORMS

2. Non-locomotor Skills: the movement skills that do not require changing directions or places. All activities classified as non-locomotor are only held in a stationary place like:

stretching,

pushing,

pulling,

twisting,

circling

and many more.



FUNDAMENTAL BODY MOVEMENTS CONCEPTS and FORMS

3. Manipulative Skills: these are the movement skills that use manipulative objects such as: *balls, hoops, racket* that aims to increase the coordination of the hand-eye and hand and foot dynamics.



FUNDAMENTAL BODY MOVEMENTS CONCEPTS and FORMS

4. Specialized Skills: these types of skills involves specific and refine movements that are *intended to a particular activity or technique.*



Fundamental Positions where most Exercises begin

1. Arm Positions

2. Body Positions while standing, sitting, kneeling, and lying down



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Fundamental Positions where most Exercises begin

Arm Positions

- 1.arms on side
- 2.arms sideward
- 3.arms forward
- 4.arms upward
- 5.arms oblique positions
- 6.folded arms
- 7.arms thrust



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Body Positions while standing, sitting, kneeling, and lying down

Standing

1. feet together
2. feet apart / straddle
3. lunge position
4. knee bend positions

Kneeling

1. kneel-sitting

Sitting

1. long sitting
2. straddle long sitting
3. elbow-support

Lying

1. supine
2. prone



THE GENERAL PRINCIPLES OF EXERCISE

Exercise is about preparing your body and mind to work together. It is about preparing for life in the most natural way. The more naturally you train your body, the more health benefits you gain. Exercise is any activity that makes the body work hard. It is a part of physical activity that is planned, structured, and repetitive for the purpose of improving and maintaining components of physical fitness.

Hindrances to a regular Exercise Program

- Lack of time
- Lack of facilities
- Lack of knowledge
- Lack of success
- Lack of family or peer support
- Illness
- Family obligations
- Procrastination
- Bad weather
- Injuries



Principles of Fitness Development:

- **Principle of Overload**
- **Principle of Specificity**
- **Principle of Individuality**
- **Principle of Recovery**
- **Principle of Reversibility**



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Principles of Fitness Development

Principle of Overload – a manner of increasing the amount of work done or reducing the period of time which the same amount of work is accomplished. It is requiring your body to do more than it normally does.

Principle of Progression-the amount of intensity of exercise has to be increased gradually.



...Principle of Overload

Intensity : this refers to the degree of difficulty of an activity or an exercise session.

Duration: refers to how long an activity will take place or how long the exercise session will last.

Frequency: refers to the number of repetitions a session will have in each time allotted for it.



Principles of Fitness Development

Principle of Specificity – Specific exercise determines the specific benefits receive.



Principles of Fitness Development

Principle of Individuality – each student improves in level of fitness at one's own individual rate. The training program should be designed according to the unique requirement of an individual in each exercise session.



Principles of Fitness Development

Principle of Recovery – this refers to the amount of time or period of rest for the body to recover from fatigue. Enough recovery time allows the body to be prepared for the next session or exercise activity.



Principles of Fitness Development

Principle of Reversibility – this can be related to the importance of the continuity of the exercise session. If an individual stops to exercise, the body will return to its original form or state of condition.



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