PED 116: Shelton

Mid-term Review

\*\* Below is a BRIEF outline of MAJOR topics you should focus on and review for the mid-term exam. Please also be sure to READ THE CHAPTERS IN THE TEXT BOOK AND REVIEW ALL MATERIAL FROM THE POWER POINT SLIDES AS THERE WILL BE MORE INFORMATION ON THE TEST THAN WHAT IS SPECIFICED BELOW!

Changing Personal Behaviors for Optimal Wellness: Chapter 1 (Both Books)

Difference between health and wellness

Overall condition of our body is our health. No disease means healthy. Many aspects of our health may be out of our control.

Wellness is more inclusive. Wellness is based on our life choices. It is mostly under our control. It includes physical wellness, social wellness, environmental wellness, emotional wellness, spiritual wellness, intellectual wellness.

Components of wellness and examples of each

Physical wellness: eat well, avid unsafe sex, avoid drugs, keep the body fit

Social wellness: make friends, communicate well, be positive

Environmental wellness: reduce pollution, reduce waste, help keep the air clean, help keep the water clean

Emotional wellness: have a positive image of yourself, be trusting, be an optimist, be sensitive to other people’s feeling

Spiritual wellness: relationship with a higher power, forgiveness, sense of purpose

Intellectual wellness: openness to new ideas, curiosity, think critically, problem solving

Why does wellness important for healthy living?

We can be healthy (as in no disease) but if we live in an area where the water is bad or the air is dirty we can’t be well. Maybe we can do a lot of pushups or run very fast but if we are not emotionally well or haver a lot of stress or are addicted to drugs our life is not balanced. All dimensions of wellness are interconnected.

Understanding Fitness Principles: Chapter 2 (Both Books)

Understand and identify principles of fitness

Overload 🡺 to see improvement you have to push a muscle to the maximum limit

Progression🡺the improvement must be in small amount one step after another. Pushing for a large improvement will cause injury

Specificity🡺 each exercise should be for a specific reason, yoga for flexibility, weight lifting for strength

Reversibility🡺 benefits gained by exercise are not permanent.

Individuality🡺we are all different. Exercise had different results for each of us

Rest and Recovery🡺 we need 1 to 3 days of rest between each workout. During the rest is when body actually makes the improvement.

Difference between physical activity and exercise

Any body movement is physical activity.

Exercise is a specific physical activity aiming to improve or maintain physical fitness. Exercise is planned, structured and repetitive.

Identify the 5 health related components of physical fitness

1. Cardiorespiratory endurance
2. Muscular strength
3. Muscular endurance
4. Flexibility
5. Body composition

Identify the 6 skill related components of physical fitness

1. speed
2. power
3. agility
4. balance
5. coordination
6. reaction time

Recommendations for fitness to achieve minimal level of health and wellness

At least 150 minutes of moderate-intensity (aerobic activity) each week.

Or 75 minutes of vigorous-intensity (aerobic activity) each week.

FITT principle

Frequency (how often you do it?) every morning

Intensity (how hard do I push myself?) at jogging speed

Time (how long do you do it?) for 30 minutes

Type (what do I do?) I run

SMART goals

**S**pecific 🡺 I want to be able to do 100 pushups

**M**easurable 🡺 I can do 25 now. I will add 10% each week. After 1 week 27, after 2 weeks 31, …

**A**chievable🡺 “I will look like Bruce Lee“ is not an achievable goal.

**R**ealistic🡺”I will exercise 5 hours a day” is not a realistic goal. But “I will always use the stairs instead of the elevator” is a realistic goal.

Time sensitive 🡺 I will reach my goal to do 100 pushups by September.

Conditioning Your Cardiorespiratory System: Old Book: Chapter 4 OR New Book: Chapter 3

Body systems that make up cardiorespiratory endurance

Hurt and blood vessels = CARDIO

Lungs = RESPIRATORY

Overview of heart and lungs

Transport oxygen and nutrients to muscles and tissues.

Transport waste away from muscles and tissues.

Energy systems:

Immediate: less than 30 seconds – burns ATP that is in the muscle (get up and run upstairs to get to the phone)

Anaerobic: from 30 second to 3 minutes – burns glucose and glycogen in the blood – does not need oxygen (100 meter sprint)

Aerobic: from 3 minutes to forever – burns oxygen (long distance running)

Max heart rate, target heart rate, target heart rate range: know the formula, how to calculate and why it is important

Max heart rate (MHR) maximum heart rate that is safe for a person based on their age. 220 – age = MHR

Target heart rate is the heart rate that we want to reach so that we are in the cardio zone.

The range is between 70% of MHR and 90% of MHR

It is important to be in the range so we are A) safe B) putting presser on our system to help it improve

FITT principle for cardio exercises

Frequency: 3-5 days a week

Intensity: talk test – check heart rate

Time: 20-60 minutes

Type: something rhythmic, running, walking, bicycling,

Building Muscular Strength and Endurance: Old Book: Chapter 5 OR New Book: Chapter 4

How skeletal muscles move bones/joints

Skeletal muscles contract and pull tendons. Tendons are attached to bones. Bones move based on the type of joint that they are connected to.

Difference between muscular endurance and muscular strength

Strength: how much we can lift (1 time, maximum weight)

Endurance: how many times can we lift it (many times, low weight)

Dynamic vs. static muscular fitness exercises

Dynamic: with motion (squat and stand)

Static: without motion (squat and hold)

Pros/Cons of free weights vs. weight machines and other muscular fitness equipment

Machines: controlled motion, safe but boring, isolated movements, expensive

Free weight: uses small muscles, full range of motion but can be unsafe, for heavy weight need spotter

How would you determine which muscular fitness exercises are right for you?

By evaluating our body first, how much can we lift, which muscle group is stronger, what is the specific goal. Most of the time a general weight training program increases our total muscle strength and muscle endurance. This is total body workout, compound movements.

Maintaining Flexibility and Back Health: Old Book: Chapter 6 OR New Book: Chapter 5

What is flexibility?

The ability for a joint to move through normal full range of motion

Joint structures/influences on flexibility

Hinge joints: fingers, knee, elbow

Ball and Socket joint: hip, shoulder

Flexibility is also determined by how elastic our muscle and tendons are.

Without regular stretching our muscle and tendons become stiff and short.

Types of flexibility exercises (dynamic/static/ballistic) and when to integrate each into your fitness plan.

Dynamic: moving – good before the workout

Static: not moving – good after a workout in the cool down timer.

Stretching exercises are recommendation is to do 2-3 days a week or if possible every day. never when the body is cold.

Understanding Body Composition: Old Book: Chapter 7 OR New Book: Chapter 6

What is body composition?

The shape of our body. Where does our body store the extra energy as fat? In the hips/in the stomach. The ratio of fat to non-fat (water bone muscle organs …)

Some of the fat in our body is essential and some are nonessential. Men need 3-5% of their body weight to be fat. Women need 8-12% because of child birth.

How do we measure body composition?

By measuring and comparing the circumference of waste and circumference of our hip. Waist larger than hip 🡺 Apple composition. Hip larger than waist 🡺 pear composition.

What can body composition tell us about our health and wellness?

Risk of disease

How much fat you should lose or gain

How is BMI used?

BMI is an indicator for quick screening. BMI is based on body weight so it can not distinguish between weight from fat and weight from muscle or bone.

BMI = (weight/(height x height)) x 703 weight in pounds height in inches

How can you alter one’s body composition?

By exercising and spending energy in a cardio workout. This eliminates the stored fat and changes the body composition.

Which area of body fat distribution contributes the most to disease and why?

Fat under the skin is called subcutaneous fat. This is easy to see, like fat stomach.

Fat that is around the major organs is called visceral fat. This is hard to even notice because we can’t see it. This is very dangerous