Wellness Semester Exam Review
(Personal Fitness, Softball, Basketball)

Personal Fitness:

- **What is the F.I.T. Principle? What does each letter represent and mean?**
  ~ F-Frequency; how often
  ~ I-Intensity; how hard
  ~ T-Time; how long
- **How *frequently* should you exercise a week?**
  ~ At least three times
- **How *intense* should your workout be?**
  ~ Enough to get your heart rate between 60% and 85%.
- **What is the minimum amount of *time* that one should work out?**
  ~ At least twenty minutes
- **What is the principle of progression?**
  ~ Gradual increase of the demands placed on the body to get increased results.
- **What are the Health Related Fitness Components? Define each**.
  ~ Cardiovascular Endurance: The ability of the heart, blood vessels, and lungs to supply oxygen to the working muscles during an activity.
  ~ Muscular Strength: The ability of the muscles to exert force.
  ~ Muscular Endurance: The ability to efficiently to use muscles over a longer period of time.
  ~ Flexibility: The ability to move through a full range of motion.
  ~ Body Composition: The amount of body weight that is fat compared to muscles, bones, and other body tissues.
- **Name examples for each for each of the above**.
  ~ Cardiovascular Endurance: Mile-Run and Fitness Work-Outs
  ~ Muscular Strength: Push-Ups
  ~ Muscular Endurance: Weight Lifting
  ~ Flexibility: Sit-and-Reach
  ~ Body Composition: Hydrostatic weighing and Skin Fold
- **What are the skill related fitness components? Define each and give an example.**
  ~ Accuracy: The ability to control the movement of one object toward another (volleyball, soccer, et cetera).
  ~ Agility: The ability to change direction and position the control of your whole body (shuttle run).
  ~ Balance: The ability to maintain equilibrium in any position (handstand).
  ~ Coordination: The ability to move two or more body parts in a smooth, controlled motion/pattern (pat head rub stomach).
  ~ Reaction Time: The ability to move quickly once you see the need to move (dodge ball).
  ~ Speed: The ability to cover a distance in a short period of time (50 yard dash).
- **What is the overload principle?**
  ~ The body becomes stronger when increased demands are placed on it.
- **What is the principle of progression?**
  ~ Increasing workload slow and gradual over a period of time.
- **What is the principle of specificity?**
  ~ Body adapts to the demands placed on it.
- **What is the F.I.T. Principle?**
  ~ Guidelines for exercise incorporating frequency, intensity, and time.
- **For Muscular Endurance how many reps and sets should you do and what is this kind of exercise used for?**
  ~ 10-15 repetitions and 2-3 sets→toning and endurance
- **For Muscular Strength how many reps and sets should you do and what is this kind of exercise used for?**
  ~ 6-8 repetitions and 3 sets→strength and size
- **What is Aerobic Exercise and what are some examples?**
  ~ Moderate exercise over a period of time with oxygen.
  Long distance running, swimming laps, cross country, et cetera.

- **What is Anaerobic Exercise and what are some examples?**
  ~ Short bursts of intense exercise using energy stored in the muscles.
  Running sprints, volleyball, basketball, wrestling, et cetera.
- **What is T.P.C. and what are the different areas and what do they do?**
  ~ Total Person Concept
  ~ Physical: Exercising or participating in an activity
  ~ Intellectual: Using our thought process during activity
  ~ Social: Working well with others during an activity.
  ~ Emotional: Using activity to help regulate emotions.
- **What do you do to improve Muscular Strength?**
  ~ Resistance (weight)
- **What are the benefits of fitness?**
  ~ Improved appearance
  ~ Increased energy levels
  ~ Happier with how you look
  ~ Stronger heart
  ~ Better physical performance
  ~ Sleep better, improved health
  ~ Avoid Injuries
  ~ Better Self-Control
  ~ Increased life expectancy
  ~ Sleep better, improved health
  ~ Increased life expectancy
  ~ Lower levels of fat
- **What are examples of risk factors?**
  ~ Inactivity
  ~ Obesity
  ~ High Blood Pressure
  ~ Smoking
  ~ Age
  ~ Stress
  ~ Cholesterol
  ~ Gender
  ~ Heredity
- **What is the Law of Use?**
  ~ That which is used develops, and that which is not used wastes away.
- **What is Hypertrophy and what is an example?**
  ~ Muscle becomes larger and stronger.
  Weight-Lifting
- **What is Atrophy and what is an example?**
  ~ Muscle becomes smaller and weaker.
  Getting a cast of your arm.
- **True or False…**
  ~ **Muscles turn into fat cells if not exercised and visa versa.**
  False they do NOT.
  ~**Fast twitch muscles fibers turn into slow twitch muscle fibers and visa versa.**
  False they do NOT.
- **What is the number one fuel for weight training?**
  ~ Carbohydrates
- **What type of activity is best for improving our cardiovascular fitness level?**
  ~ Aerobic
- **What does your heart rate tell you about your fitness level?**
  ~ The cardiovascular shape you're in
  ~ How hard you're working
- **What is your recovery and how long is it?**
  ~ The ability to get back to resting heart rate after exercise→48 hours
- **What is the most important muscle in the body?**
  ~ The Heart
- **What are benefits of Muscular Fitness?**
  ~ Ability to do more strenuous work
  ~ Less susceptible to muscular fatigue
  ~ Improved appearance
  ~ Ability to do more work over a longer period of time
  ~ Less injury prone
  ~ Athletic Performance

- **What are fast twitch muscle fibers? Slow twitch?**
  ~ Fast Twitch: Fast contraction→high power→low endurance→less oxygen dependent (ANEROBIC)
  ~ Slow Twitch: Slow contractions→low power→high endurance→uses oxygen more (AEROBIC)
- **Do we have both muscle groups?**
  ~ Yes, the stronger one is just the one that we target.
- **What are concentric muscles? Isometric? Eccentric? Describe the comparison of force and resistance.**
  ~ Concentric: Muscle shortens (force is greater than resistance)
  ~ Isometric: Muscle length does not change (force is equal to resistance)
  ~ Eccentric: Muscle lengthens (force is less than resistance)
- **Why is it important to use good technique during strength training?**
  ~ Get results desired and avoid injuries.
- **What are some factors for proper training for strength training?**
  ~ Warm-Up ~ Full Range of Motion
  ~ Spotter ~ Adjust Machine to Fit
  ~ Proper Amount of Weight ~ Controlled, Smooth Movements
- **Cardiovascular activities have what four characteristics?**
  ~ Use of Large Muscle Groups
  ~ Rhythmic
  ~ Continuous
  ~ Aerobic
- **What is a Lifetime Activity?**
  ~ Most people stop participating in an organized team after gradation, thus it is essential that they stay active and healthy and fit for the rest of their lives by participating in activities.
- **What are some Lifetime Activities?**
  ~ Golf
  ~ Tennis
  ~ Walking/Jogging
  ~ Biking
- **What is Body Composition the comparison of?**
  ~Comparison of FAT to everything else that your body is composed of (skin, muscle, bones, blood, organs, water, etc)
- **Why do we need body fat?**
  ~ Normal Physiological Functioning
  ~ Protection of Organs
  ~ Insulation & Temp Regulation
  ~ Energy Storage
- **Why is it important to know your body composition?**
  ~ Evaluate your health better
  ~ Plan for a better program for Body Composition/Weigh Management
  ~ Evaluate your progress more accurately
- **What are some ways that you can estimate your body composition?**
  ~ Skinfold Calipers →Fat tissue measured at various places of the body with a caliper.
  ~ Underwater Weighing (Hydrostatic)→Body volume determined by water displaced; body density determined by body weight in water; most accurate.
  ~ Bioelectrical Impedance →Instrument that measures the speed of electrical impulses throughout the body; muscles better conductor than fat which means more muscle you have, speed current is faster.
  ~ Height Weight Charts →Old method based on averages for frame size, not percentage. No consideration for <u>Body Fat!</u>
- **What is the recommended percentage for body fat for males? For females?**
  ~ Males: 12%-18% ~ Females: 18%-24%((child bearing)
- **What is essential fat? Storage fat? What are the differences?**
  ~Storage Fat is needed while storage fat is tissue for insulation, protection, and temperature regulation; excess amount of this fat becomes a risk factor for heart disease.
  ~Essential Fat is the bare minimum fat needed.

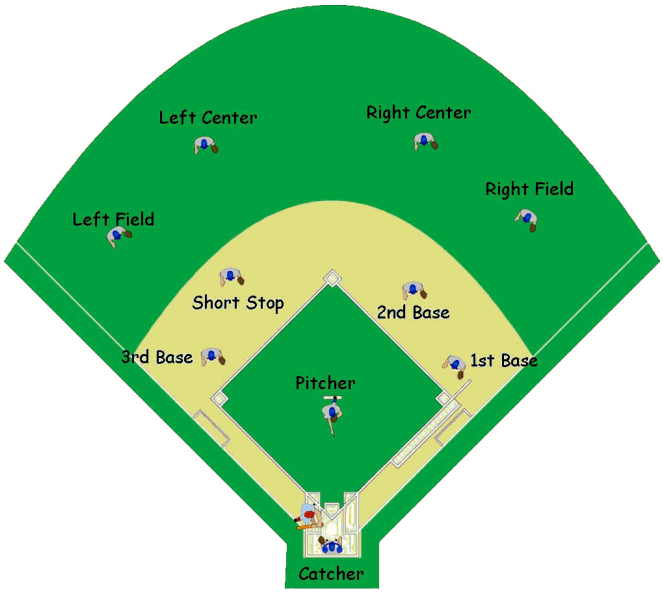
- **What is the recommended percentage of <u>Essential Fat</u>?**
  Males: 4%-6% Females: 10%-12% (child bearing)
- **What is the recommended % of <u>Storage Fat</u> for males and females?** 8%-12%
- **What is a calorie?** Unit of Energy we get from Carbs, Fats & Proeins
- **How many calories is equivalent to one pound of fat?** 3500
- **What is the purpose of calories?**
  ~ To meet he metabolic needs of the body and supplies energy for physical activity.
- **What are two ways calories are burned?**
  ~ Physical activity and metabolism
- **How many calories can you burn in one minute by exercising in your target heart rate zone?**
  ~ 8-15 calories per minute
- **What is the recommendation for pounds lost per weak from the American Medical Association?**
  ~ 1-2 lbs. per week MAXIMUM
- **What are the two effective ways to lose weight?**
  ~ Diet and exercise
- **What do excess calories turn into?**
  ~ Fat
- **What is flexibility?**
  ~ The ability to move a joint through a normal range of motion.
- **What are the benefits of good flexibility?**
  ~ Prevents injuries
  ~ Joint health
  ~ Decreases Muscle Soreness
  ~ Good posture
  ~ Improve Performance
  ~ Prevention of lower back pain and back injuries.
  ~ Relief from aches and pains.
  ~ Relaxation
- **What are the Five types of stretches?**
  ~ Static: Holding a stretch at one end of a joint's full range of motion.
  ~ Dynamic: Continuous stretching with movement through a joint's full range of motion (used as part of warm-up)
  ~ Active Stretching: A muscle is stretched by contraction the opposite muscles (Waking up in the morning and stretching arms while yawning)
  ~ Passive Stretching: A stretch provided by an outside force such as a partner, gravity, or weight while muscles stay relaxed (ex. Partner helping to stretch hamstrings)
  ~PNF: passive stretch followed by resistance and another passive stretch.
- **When should you stretch?**
  ~ When your muscles are warm.
- **What should be the intensity of your stretch?**
  ~ To the point of mild discomfort/pain.
- **How long should you hold a stretch for?**
  ~ For ten to thirty seconds, rest for thirty to sixty seconds, and then repeat.
- **What should you increase over time to improve flexibility?**
  ~ Intensity and duration.
- **What is the definition of a joint?**
  ~ The area where two bones connect.
- **What does a ligament connect? A tendon?**
  ~ Ligament: Fibrous tissue that connects bone to bone at a joint.
  ~ Tendon: Fibrous tissue that connects bone to muscle at a joint.
- **When is fat formed?**
  ~ During the last nine months of development into early twenties.
- **What increases, size or amount?** ~ Size.

- **Know the following information:**

	Muscle	Fat
Properties	Fibrous contractile and connective tissue	Spongy substance Adipose tissue, lipid
Weight/Density	Heavier; more dense	Lighter; less dense
Function	Moves skeleton	Protection; insulation
Change in response to exercise	Increase/Decrease in size in response to exercise.	Increase/Decrease in size in response to exercise.

Softball:

- Slow pitch softball is played on teams of 10 players. The extra player is placed in the outfield.
- A slow pitch softball game lasts 7 innings.
- The ball must be pitched underhand.
- Baserunners must wait until the ball is hit or has crossed home plate before he or she can come off the base. No lead offs or stolen bases
- A hitter must take a full swing. There are no bunts allowed.
- No player may advance to the next base on a ball that is caught on a fly by the defensive player. The baserunner must wait til the ball is caught before he/she is allowed to advance. This is called "tagging up".
- There are many ways to get a batter out. Here are a few:
    - 3 strikes
    - catch a ball on the fly
    - force the batter out by stepping on 1st base before the batter
    - tag the batter out
    - catch a foul ball on the fly (a foul tip must go above the batters head to be caught by the catcher for the out)
- Fair or Foul Ball?
    - A fair ball is any batted ball that remains over fair territory until it crosses first base or third base, or is first touched by a player while in fair territory.
    - A ball that lands directly on the foul line is fair.
    - A ball which hits first or third base is fair.
- A force play is a play in which the runner is forced to advance to the next play because the batter has become a baserunner. A force play occurs when a defensive player touches the base before the baserunner gets there.
- Slow pitch softball may be considered a Lifetime activity. Many older adults are still active in softball.
- Slow pitch softball is NOT an aerobic activity.



Basketball:

- **Field Goal -**Any made basket except a free throw.
- **Bank shot** -A shot that hits the backboard first and then bounces into the basket
- **Three point field goal**-A shot made behind the 19'9" arc .
- **Free throw**- A shot given as a result of a foul or technical foul. Free throws are unguarded shots from 15 feet. They count as one point. A person is awarded 3 shots if fouled behind 3-point line and original shot does not go in. On a made basket and a foul- they are awarded 1 shot.
- **Layup**-Shot taken on the run.
- **Rebound**-Recovery of the ball off the backboard or basket.
- **Defense**-The team without possession of the ball.
- **Offense -**The team with possession of the ball
- **Charging**-Running into a defensive player by an offensive player (type of foul.)
- **Violation**-An infraction of the rules in which the other team is given the ball out of bounds.
- **Foul**-Illegally pushing, tripping, holding, blocking, or charging. These are personal fouls.
- **Three Seconds**-Standing in the free throw lane near your basket for three seconds or longer (a violation).Only the team on offense cannot be in the lane area for three seconds. There is no time limit for the defense.
- **10 second rule**-The offense has 10 seconds to advance the ball to the half court line. This occurs in the team's backcourt.
- **Double Dribble**-Touching the ball with both hands at the same time on a single dribble or dribbling, picking up the ball, and dribbling again.
- **Turnover**-The offensive team's loss of the ball to the defending team.
- **Traveling**-Moving with the ball in your hands without dribbling properly also called walking.
- **Jump Ball-** The ball is tossed up between two players of opposing teams to start the game.
- **Lane**-The area from the baseline to the free throw line that is underneath the basket. The offensive player may only be in this area a maximum of three seconds. The defense has no limitations on time spent in the lane.
- **Pivot**-When a player places both feet on the ground he/she may pick one foot up and move around as long as the foot on the ground remains stationary. The foot on the ground is called the pivot foot. The pivot foot may not leave the ground unless the player dribbles the ball or the player shoots the ball.
- **Screen**-A legal method of blocking a defensive player by an offensive player.
- **Agility**-is the aspect of physical conditioning needed in playing defense, making quick stops, jumping and sprinting.

Game Strategies

- **Moves in a One on One situation:** jab step, pass fake, shot fake, beat them on first dribble, shoot if cushion and drive then pull up for a shot.
- **Aspects of the game to incorporate in Two on Two through Five on Five:** Screens, Give and Go, Pick and Roll, all one on one moves, Help side defense, Double team
- **Pick and Roll**-A legal screen of a defensive player by an offensive player after which the offensive player moves to the basket.
- **Give and Go**-Player A passes to Player B then Player A cuts towards the basket and receives the pass from Player B.
- **V-cut/L-Cut**-When a player on offense tries to create separation from a defending player they may use these moves to do so.
- **Man to man defense**-Is where you guard a player one on one. You should always stay between your player and the basket.
- **Zone defense**-This is a defensive technique used by teams as an alternate to man to man defense. In a zone defense each of the five players is responsible for guarding an area of the court and the player who is in that area. You do not follow your man around while playing a zone defense. You will let a teammate pick up your man he cuts through your designated area.
- **The difference between ball side and help side defense is:**
  Ball side is the half of the court where the ball is. When playing ball side defense you must play between the person you are guarding and the basket. The court is divided down the middle of the floor. Help side is the half of the floor away from where the ball is. The help side defender should be in the lane defending both the ball and his/her player.