

Exercise Science Final Review 2015

1. Know the knee joints anatomical structures
2. Know 5 Types of bones and examples
3. 5 roles or function of our skeleton
4. Recommendations on how to prevent osteoporosis
5. Function and location of cartilage
6. Three main groups muscle tissue can be classified
7. Three types of muscular contractions
8. Difference between Fast and slow twitch fiber
9. 3 functions of muscle
10. sliding filament theory – know steps of muscle from thought to coming to rest
11. Difference between tendon and ligaments
12. Protocol to determine if ligament or tendon injured
13. 5 types of joints in the body
14. anatomical terminology – planes, axis, anatomical
15. Big picture of nervous system
16. Stretch reflex, proprioception, golgi tendon, patellar tendon, muscle spindle ..
17. Diagram conduction of heart
18. Able to read ECG
19. Energy pathways – energy source, uses oxygen ? , duration, by products
20. Blood pressure – systolic / Diastolic pressure
21. Cori Cycle and blood lactate threshold
22. 4 functions of cardio vascular system
23. 3 main functions of respiratory system
24. the sharp principle and how each manifest in an injury
25. the pier principle to help heal the injury
26. Your healing presentation
27. How to use the BMI chart
28. Diseases from obesity
29. 5 factors effecting your metabolic rate
30. Human morphology characteristics
31. the energy equation
32. ergogenic effects for a helping a person jump high (nutritional, pharmacological, physiological)
33. 4 components of a general exercise program
34. FITT principles and definition of each
35. Calculation training heart rate
36. 3 Tools to help performance through better concentration
37. 3 Tools to help performance through better control of arousal and relaxation
38. Difference between teaching a skill with chaining technique or shaping technique
39. inverted “U” hypothesis and the implication of how it works with single task and multiple tasks.
40. factors that lead to ideal performance state
41. know 7 biomechanical principles and how they are applied to high jumping
42. what are the 4 stages in video analysis to assess a skill
43. What are 5 specific components that biomechanics cans assess
44. Know why flosbury flop better than western roll with respect to effort required and center of mass
45. What are the 4 key components of human development