

Oakmont High School

Sports Science

Course Syllabus

Instructor: Mr. Jinguji MS, PES

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Book: Introduction to Sports Medicine and Athletic Training by Robert C France

Materials: Three-ring binder (2 inches) with 15-20 pieces of lined paper brought to class each day for notes and warm-ups. Pen/Pencil and highlighter.

Course Description: This course will offer students an exceptional opportunity to learn and experience more about sports medicine and exercise science. Students will obtain a greater understanding of human anatomy/physiology, kinesiology, biomechanics, motor control, athletic injuries and pre/rehabilitation. Students will be able to assess movement, health/fitness, and muscular imbalance. With the data received from these assessments, students will learn about corrective action to take for these physical deficiencies. Students will experience practical hands-on application in the following areas: prevention, recognition, treatment, and rehabilitation of sports injuries, taping and wrapping of injuries, First Aid/CPR, and emergency procedures. Through this class, students will develop a foundation of knowledge and understanding regarding the concepts familiar to medical careers such as anatomy, physiology, and kinesiology.



Planned Course Content:

- **Program Introduction** – Program overview, student expectations, safety rules and regulations.
- **Topographic Anatomy** – Overview, body regions, directional terms, anatomic locations (landmarks), planes of the body, and the importance of landmarks. Students will need to understand and identify these landmarks for proper treatment, taping and rehabilitation of athletic injuries.
- **Musculoskeletal System** – Bones, joints, muscles and connective tissue. Students will need to understand the names of these, their location and how these function in body movement and athletic performance in order to ensure proper treatment, taping and rehabilitation of athletic injuries.
- **Physiology of Exercise/Exercise Science** – Strength training, biomechanics, muscle actions (eccentric, concentric and isometric) and motions (adduction, abduction, inversion, eversion, flexion, etc.), energy systems, proprioception, movement analysis and exercise prescription, tissue adaptations to physical activity, endocrine responses to

exercise, aerobic and anaerobic training, and cardiovascular and respiratory anatomy and physiology. An in depth understanding of these concepts will ensure proper treatment and exercise prescription for rehabilitation of athletic injuries.

- **Immediate and Temporary Care** – CPR, First Aid, and basic Life support systems. The student must have a thorough understanding and practical application of these skills as a first responder to athletic injury.
- **Pre-participation Physical Evaluation** – Purpose of evaluation, organization, and general physical. Possessing a comprehensive history and pre-participation physical will enable the student to more adequately assess injury and prescribe effective rehabilitation.
- **Injury Assessment and Evaluation** – The body’s reaction to injury, acute and chronic injury, injury assessment and evaluation using the HOPS procedure, treatment procedures for sports injuries (RICES), overuse injuries, soft tissue and musculoskeletal injuries, and athletic taping and wrapping. The student must be able to effectively assess the type of injury, utilize these assessments to successfully prescribe the treatment procedures, corrective action, and rehabilitative techniques to return the athlete to competition.
- **Treatment Modalities** – Cryotherapy, massage, moist heat, whirlpool, and operations & safety. The student will be introduced to these modalities offered by a Physical Therapist to treat athletic injuries.
- **Nutrition and Performance Enhancing Drugs** – How to safely lose or gain weight, pre-event meals, post exercise nutrition and replenishment, eating disorders, steroids, growth hormone, erythropoietin, human chorionic gonadotropin, vitamins and amino acids.



Grading: Tests/Quizzes/Assessments, Practical evaluations and peer evaluations, such as: taping, wrapping, assessing injuries, etc. 50%

Assignments, Warm-ups and Working in Cooperative Groups. 30%

Warm-Ups must have the question written out completely, answered completely, and must be correctly labeled and dated.

Notebook checks, Participation, Preparedness, Discussions, Question and Answer sessions, Lab Set-up and Clean-up, Practice taping/wrapping Injuries and Abiding by and adhering to Class and School policies. 20%

Class Rules:

- Bring your notebook to class **every day**. (There may be random notebook checks for points)
- Please **be on time** to class. Class starts at the bell with a Warm-up exercise. If you are late, you will have missed the Warm-up exercise.
- **No food** or glass containers in the Sports Science Lab.
- **No cell phones**. Your cell phone should not be a distraction to the learning environment. Cell phone will be used as a resource for student learning and **should not** be used for checking social media, e-mail or other non-curricular uses.
- No Gum. Dispose of it in the trash prior to the beginning of class.
- Use **appropriate** and **respectful** language at all times.
- Treat all students, teachers and administrators with **respect**.
- Always be **safe**.
- Learn vicariously. Watch and learn from others.
- Be a peer teacher. Help out others when you have mastered something.
- Practice Viking Expectations: Be Respectful, Be Responsible, Actively Engaged, Have Integrity.
- Always leave the room clean. Class will be dismissed only when this is accomplished.

Make-ups:

It is the responsibility of the student make up all work missed due to excused absence(s). This is accomplished during the Intervention period for the class (Tuesday or Wednesday). Tests and/or quizzes may be made up during this time, as well as, lab practicals.

Students must schedule the make-up with Mr. Jinguji within a week of their return to school; failure to do so may result in a grade of zero for the missed work.

I understand and agree with all of the above rules and expectations. If I, or my parents, have any questions, it will be communicated to the teacher via email. tjinguji@rjuhsd.us

Student Name _____
PRINT NAME CLEARLY

Student Signature _____

Parent Name _____
PRINT NAME CLEARLY

Parent Signature _____