

INVICTUS FITNESS AND NUTRITION

Interactive and academic fundamentals of
exercise and nutrition science

By Ryan Mickey

Class Description and Curriculum

R. Mickey CDCR# AD-2970

Facilitator/Trainer

Mind-Body Fitness Group

Exercise and Nutrition Science

Composed by IPHEP & PPS

Building through science



Many inmates have trouble coping with the day-to-day stresses of prison life and may turn to drugs, fighting, gangs, or lashing out. The purpose of this course is to give participants a chance to engage with something positive and learn more about themselves. Taking proper care of one's mind and body is the paramount focus throughout this course. By taking this class, participants will develop the knowledge necessary to understand what is going on in their body and be able to develop personalized plans for exercise and nutrition. They will learn how to periodize their workouts and nutrition plans to achieve specific health and fitness goals. This is an *eight week course*.

The Mind-Body Fitness (MBF) group's mission is to focus on rehabilitation through the perspective of fitness and health education. A strong focus will be on the following criminegenic factors and areas of concern within the inmate population:

❖ Antisocial
Personalities

❖ Antisocial Behaviors

❖ Leisure & Recreation
Activity Time

The MBF Exercise and Nutrition Science core curriculum is based on the following four scientific disciplines:

- **Biomechanics-** The overriding principle of biomechanics is that force causes all movements and underlies all training or injury that occurs. Knowing the effect of force provides a solid foundation for knowing more about how to train properly while understanding movement and injury.
- **Kinesiology-** A science that deals with the effects of forces upon the motions of the body, as well as an examination of how body systems interact during various forms of training and how to use that knowledge to enhance performance, avoid/overcome injury, and promote fitness.
- **Exercise Physiology-** A study of the functions at the molecular level in our bodies that keep us performing at peak levels, or tells us that we've had enough. The communication between our nervous system and muscular system, communication from cell to cell regarding energy availability, muscle contractions, and processes that convert substrates into energy. Everything our body's physiological processes do to keep us functioning properly, whether during intense training, sports or moderate to intense exercise.
- **Sports Nutrition-** The physiology and molecular basis of exercise, nutritional assessments, physique measurement protocols, weight loss and management, and nutritional strategies. Micronutrient and macronutrient needs and iron depletion; the concept of energy availability; relative energy deficiency in sports (RED-S), as well as requirements for specific populations (e.g. children, vegetarians, and master athletes). Nutritional and physiological considerations for different environmental conditions (e.g. travel, cold, heat, altitude).

In an academic setting, participants will learn basic physiology, anatomy, kinesiology, biomechanics, exercise physiology, and sports nutrition. A regular pre and post-test schedule will be implemented and there will also be nutritional assessments along with body composition tests (copy of tests included

herein). This course will also include *HIIT* (high intensity interval training) classes, *cross fit* classes, a *senior exercise class*, *wheelchair bound* (handicapped) classes, and additional help for *lower functioning* (voluntary) mental health and heavily medicated inmates with their health and fitness goals.

This program is sponsored by Dr. Lukasic, and Dr. Hauser of the Mental Health Department who will provide limited support and general oversight as needed for accountability purposes (i.e. attendance verification, chrono/certificate generation, etc.). The sponsor shall not be required to be present for this peer-led program as all classes will be facilitated by the designated inmate facilitator-R. Mickey CDCR# AD-2970.

This group will be held Monday through Friday from approximately 100-1530 hours, in building 25, B-113, following a pre-set schedule. Room access will be provided by the housing unit's officers as needed during class program hours and will remain locked when not in use. The schedule, classes, dates and times are subject to change at any time by the staff sponsor or administration.

The curriculum is peer facilitated with professional experience in the respective areas, and will consist of the following evidence building criteria:

- Pre and post testing
- Classroom instruction
- In-group exercise
- Self-reflective writing assignments

Exercise and Nutrition science outline:

Pre-test to establish where one's overall knowledge and understanding level is at.

Week 1-2 Introduction, basic principles, and anatomical terminology

Week 3-4 Movement, the muscular system, and neuromuscular communication

Week 5-6 Nervous System, the Digestive System, and the Endocrine System

Week 7 What is a calorie and basic nutrition principles

Week 8 Understanding micro & macro nutrients

Post-test and review to determine growth and what has been learned.