

BSE207 Exercise Physiology

Level: 2

Credit Units: 5 Credit Units

Language: ENGLISH

Presentation Pattern: EVERY JAN

Synopsis:

BSE207 Exercise Physiology provides students with the applied knowledge of the physiological and biochemical alterations occurring in the human body due to the physical stress of exercise. Emphasis is placed on understanding the functional changes that result from acute and chronic exercise. Laboratory sessions are included as a means to review and enhance understanding as students observe the physiological responses and adaptations that occur during physical activity and apply assessments used in the field of exercise physiology.

Topics:

- Skeletal Muscle Structure
- Skeletal Muscle Function
- Bioenergetics
- Basic Energy Systems
- Metabolic Response to Exercise
- Fuel Utilisation during Exercise
- Systemic and Pulmonary Circuits
- Cardiorespiratory Response to Exercise
- Components of Physical Fitness
- Assessing Health-Related Physical Fitness
- Principles of Training
- Components of a Training Programme

Textbooks:

Powers, S. K., & Howley, E. T.: Exercise Physiology: Theory and Application to Fitness and Performance, 10th Edition. <eBook> 10 Mcgraw Hill
ISBN-13: 9781259982736

Learning Outcome:

- Discuss the basic concepts of the human physiological response to acute and chronic exercise, including metabolic, circulatory, respiratory, and muscular responses.
- Describe bioenergetics and regulation of bioenergetics during exercise.
- Use appropriate terminology in discussing current research relative to the field of exercise physiology.
- Develop and apply knowledge in the use of a variety of laboratory techniques in order to observe the physiological responses and adaptations that occur during physical activity.
- Analyse how the body adapts to physical activity during sports & exercise.
- Use various laboratory assessment techniques to measure human physiology responses to the various forms of exercise.
- Appraise several components of physical fitness using appropriate measures.
- Develop an exercise prescription Programme for the fundamental components of fitness.
- Analyse and interpret an individual's exercise performance data performed in laboratory sessions.

Assessment Strategies (Evening Class):

Components	Description	Weightage Allocation (%)
Overall Continuous Assessment	PRE-CLASS QUIZ 1	1.66
	PRE-CLASS QUIZ 2	1.67
	PRE-CLASS QUIZ 3	1.67
	TUTOR-MARKED ASSIGNMENT 1	15
	TUTOR-MARKED ASSIGNMENT 2	30
Overall Examinable Components	ECA	50
Total		100