STUDENT LEARNING OBJECTIVES

The following is the Mission Statement for The Department of Kinesiology:

OUR DEPARTMENT MISSION IS TO GENERATE NEW KNOWLEDGE AND EDUCATE SOCIETY, WITHIN AND BEYOND THE COMMONWEALTH OF MASSACHUSETTS, AS TO THE SCIENTIFIC PRINCIPLES THAT UNDERLIE THE ROLE OF MOVEMENT AND ITS INTERACTION WITH ENVIRONMENTAL FACTORS IN ATTAINING OPTIMAL HUMAN HEALTH AND WELL-BEING.

BY OUR STUDY OF THE STRUCTURAL AND FUNCTIONAL INTERACTIONS BETWEEN MOVEMENT AND HEALTH, WE WILL:

1. Promote the understanding of benefits of physical activity;

2. Provide high quality education for undergraduate and graduate students;

3. Extend the boundaries of knowledge through innovative and integrative research;

4. Translate research results to practical applications beneficial to society.

THE DEPARTMENT OF KINESIOLOGY IS COMMITTED TO PROMOTING DIVERSITY

To insure that we are achieving our mission, we will have our students learning the following:

1. Understand the basic issues and subdisciplines that comprise Kinesiology

2. Achieve basic library research skills

3. Acquire elementary data analysis skills

4. Understand terminology related to mortality, morbidity and health risk factors

5. Understand terminology related to the study of physical activity, exercise and fitness

6. Understand basic concepts about exercise, physical activity and fitness that are relevant to human health

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8. Understand basic concepts about exercise, physical activity and fitness that are relevant to human health

9. Learn how physical activity, sedentary behavior, and fitness are assessed and used and the strengths and weaknesses of these measures
10. Learn how to evaluate quality and significance of the science of exercise, physical activity and health
11. Learn the physiological aspects of major diseases/conditions that impact health
12. Understand risk factors for major diseases that influence health
13. Learn general physiological adaptations that occur with physical activity that influence health and disease
14. Apply this knowledge to understanding how physical activity, exercise and sedentary behavior impact various conditions, diseases, and disease risk
15. Link knowledge from physiology, science of physical activity and health to federal and organizational guidelines and recommendations about exercise and physical activity
16. Learn to use surrounding resources to successfully complete a project in a group setting.
17. Gain tools for professional and career development including internships, graduate school, and jobs.
18. Develop scientific writing within the field of kinesiology by developing the following skills:
   a. Effective self and peer editing
   b. Researching and critically reading professional journal articles
19. Develop professional documents and communication skills
20. To develop an understanding of providing safe and effective physical activity programs for children, older adults, pre and post-natal, and individuals with certain chronic disabilities;
21. To learn strategies to improve adherence to physical activity;
22. To develop an understanding of how different ethnicities may approach physical activity as it relates to health.
23. To gain a thorough understanding of the fundamental principles that govern the physiological responses of the body to acute and chronic exercise, from a cellular to systems level approach.
24. To provide the students with ability to directly assess the acute effects of various modes and durations of exercise on different physiological systems of the body.
25. To gain an understanding of the methods used to quantify physiological function and energy expenditure.
26. To provide an introductory course in human movement with an emphasis on “neuromechanics”, featuring the integration of principles from biomechanics and motor control.
27. To learn to apply the basic principles of human biomechanics and motor control to understand the neuromechanical aspects underlying a variety of topics (e.g. elite performance, product design, neuromuscular and orthopedic pathologies, ergonomics, robotics).
These Learning Objectives will be assessed by the following techniques:

1. Exams
2. Projects
3. Case Studies
4. Group Presentations

Which are designed to elicit:

1. Fundamental ideas and methods of analysis
2. The application of these methods to real world problems
3. Critical thinking through inquiry, problem-solving and analysis
4. An awareness of multiple perspectives (e.g. how race, ethnicity and social “class” impact health)