

**Common Course Outline for:** *EXSC 2300 Introduction to Exercise Science*

**A. Course Description**

1. Number of credits: 3
2. Lecture hours per week: 3  
Lab hours per week: None
3. Prerequisites: Recommended eligible for READ 1106 and ENGC 1106
4. Co-requisites: None
5. MnTC Goals: None

*An introduction to the science of human movement in a format of a lecture class. This course provides an overview of exercise physiology, sport and exercise psychology, biomechanics, motor behavior, sociocultural aspects of sport and exercise, sport nutrition, and other related topics. Also, this course provides information on the numerous areas of study and their applications within the field of Kinesiology.*

**B. Date last revised:** January 2019

**C. Outline of Major Content Areas**

1. Introduction to the sciences of human movement
2. The scientific study of human movement
3. Anatomical kinesiology
4. Biomechanics
5. Exercise Physiology
6. Fitness and health
7. Motor development
8. Motor learning and control
9. Sport psychology
10. Sport pedagogy
11. Pre-professional Career Development within the Exercise Science field

**D. Course Learning Outcomes**

Upon successful completion of the course, the student will be able to:

1. Examine the scientific study of human movement and its historical beginnings.
2. Become aware of research tools and develop an appreciation of the scientific process.
3. Explore a basic introduction to human anatomy.
4. Describe the structure and function of the human nervous, skeletal, and muscular systems.
5. Examine the study of biomechanics in relation to our understanding of human movement.
6. Develop an appreciation for the anaerobic and aerobic processes that provide energy for the working muscle.

7. Identify the role the heart, lungs, vascular system, and blood play in the delivery of oxygen, nutrients, and the elimination of by-products from the working cells of the body.
8. Develop an appreciation for the many and varied benefits of regular exercise and physical training.
9. Understand basic tools and procedures that are used to assess exercise capacity and health risk.
10. Examine the interaction of exercise, nutrition, and body composition.
11. Differentiate between traditional and contemporary development perspectives.
12. Understand the diversity of human motor performance and learning.
13. Examine the influence of personality, motivation, stress, and social factors on participation in physical activity.
14. Develop an appreciation for the field of sport pedagogy and its contribution to the teaching of human movement.
15. Acquire and develop professional skills in technology through the use of Internet and E-mail.
16. Explore professional organizations and publications in the discipline of Exercise Science.
17. Recognize the occupational opportunities available to Exercise Science majors.

**E. Methods for Assessing Student Learning**

Students will be evaluated on their performance in group projects, individual attendance and projects, and written exams.

**F. Special Information** None