

Course Outline for: EXSC 2300 Introduction to Exercise Science**A. Course Description**

1. Number of credits: 3
2. Lecture hours per week: 3
3. Prerequisites: None
4. Corequisites: None
5. MnTC Goals: None

Exercise science is a comprehensive discipline that involves an overview of exercise physiology, sport and exercise psychology, biomechanics, motor behavior, sociocultural aspects of sport and exercise, and sports nutrition. These topics will be emphasized in a lecture-based format as they relate to their social impact in society and related careers. Professional organizations and advanced degree programs will also be explored.

B. Date last reviewed/updated: March 2025**C. Outline of Major Content Areas**

1. The scientific study of human movement
2. Anatomical kinesiology and exercise physiology
3. Biomechanics
4. Fitness and health
5. Motor learning, development, and control
6. Sport psychology
7. Sport pedagogy
8. 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. Discuss the historical and philosophical foundations of the exercise science field.
2. Describe the basic components of human anatomy and physiology.
3. Examine the study of biomechanics in relation to our understanding of human movement.
4. Analyze basic tools and procedures that are used to assess exercise capacity and health risk.
5. Differentiate between traditional and contemporary motor development perspectives.
6. Examine the influence of personality, motivation, stress, and social factors on participation in physical activity.
7. Discuss various career opportunities within the field of Exercise Science.
8. Differentiate the various professional organizations and certifying agencies within the field.
9. Identify professional expectations of employment within the field of

- exercise science.
10. Describe the functions, recommendations and guidelines for nutrients.
 11. Evaluate the reliability of nutrition information.

E. Methods for Assessing Student Learning

Methods for assessment may include, but are not limited to, the following:

1. Group discussions
2. Projects
3. Written exams

F. Special Information

None