

## CEP665 Exercise for Special Populations

(4 credit hours)

### Course Syllabus

---

#### Course Description

This course is designed to apply theoretical knowledge in the areas of basic pathophysiology and science of health status, condition, disorder or disease, client consultation, program planning, safety, emergency procedures, and legal issues. These topics are relevant for working with special population clients of all ages.

#### Course Learning Outcomes

By the end of this course, you will be able to:

1. Students will analyze the changes of healthy mechanical, physical, and biochemical functions of the human body caused by diseases in adults, adolescents, and older adults.
2. Students will demonstrate knowledge on the understanding of emergency and safety procedures, professional, legal and ethical responsibilities, and HIPAA regulations.
3. Students will evaluate the role of professionals in the field of fitness and client outcomes.
4. Students will appraise client's health and select appropriate fitness evaluation and referrals to suitable healthcare provider.
5. Students will create program designs, SMART goals, and motivational/coaching techniques based on their client's health and fitness needs.

#### Required Textbook(s) and Resources

Buckley , J. P. (2008). Exercise Physiology in Special Populations (Don MacLaren & Neil Spurway, Eds.; 1st ed.). Churchill Livingstone.

Be sure to also review the weekly **Explore** sections for additional library or web resources. For access to databases, research help, and writing tips, visit the [Tiffin University Library](#).

#### Time Commitment

Effective time management is possibly the single most critical element to your academic success. To do well in this online class you should plan your time wisely to maximize your

learning through the completion of readings, discussions, and assignments. Because of our accelerated, seven-week term, TU online courses are designed with the expectation that you dedicate a little over **six (6)** hours per credit hour to course activities and preparation **each week**. For example, for successful completion of a three-credit, seven-week online course you should reserve roughly **twenty (20) hours per week**.

To help plan your time and keep on track toward successful course completion, note the distinctive rhythm of assignment due dates:

6. All times assume Eastern Time (GMT-4).
7. Weeks begin at 12:00 a.m. ET on Monday and end at 11:55 p.m. ET on Sunday.
8. Unless otherwise noted, initial assignments or discussion posts are due by **11:55 p.m. ET on Wednesdays**.
9. Additional assignments or follow-up discussion posts are due by **11:55 p.m. ET on Saturdays, and**
10. Major assignments and reflections are typically due by **11:55 p.m. ET on Sundays**.

## Learning Activities

### 1. Weekly Forums

The discussions you will have in the Weekly Forums will encourage you to critically engage with the course material, apply theoretical knowledge to real-world scenarios, and refine your understanding through peer interaction. By actively participating in weekly forums, you not only enhance your grasp of complex concepts related to exercise physiology and special populations, but you will also develop your communication and critical thinking skills.

### 2. Personalized Exercise Plans

The weekly personalized exercise plans are a vital component of the curriculum, offering you hands-on experience in applying theoretical knowledge to practical scenarios. These assignments challenge you to consider individual health conditions, such as obesity or diabetes, and tailor exercise programs that are both safe and effective, taking into account the unique physiological and pathophysiological characteristics of your hypothetical clients. This process enhances critical thinking and problem-solving skills, as you must integrate your understanding of exercise science with client-specific needs.

### 3. Knowledge Checks

Weekly Knowledge Checks play a crucial role in reinforcing learning and ensuring comprehension of key concepts. The Knowledge Checks act as regular checkpoints for you to assess your understanding of the material and identify areas where further review may be needed. By engaging with the questions, you will be able to actively recall and

apply information learned during the week, enhancing retention and facilitating a deeper integration of knowledge.

## Grading

The chart below identifies the individual contributions from each type of activity, per week.

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
<b>Knowledge Check</b> Activity 1.2 (5)	<b>Knowledge Check</b> Activity 2.1 (5)	<b>Knowledge Check</b> Activity 3.1 (5)	<b>Knowledge Check</b> Activity 4.1 (5)	<b>Knowledge Check</b> Activity 5.1 (5)	<b>Knowledge Check</b> Activity 2.1 (5)	<b>Knowledge Check</b> Activity 2.1 (5)	<b>35</b>
<b>Forums</b> Activity 1.1 (n/a) Activity 1.3 (50)	<b>Forums</b> Activity 2.2 (50)	<b>Forums</b> Activity 3.2 (50)	<b>Forums</b> Activity 4.2 (50)	<b>Forums</b> Activity 5.2 (50)	<b>Forums</b> Activity 6.2 (50)	<b>Forums</b> Activity 7.2 (40)	<b>340</b>
<b>Assignments</b> Activity 1.4 (65)	<b>Assignments</b> Activity 2.3 (65)	<b>Assignments</b> Activity 3.3 (65) Activity 3.4 (60)	<b>Assignments</b> Activity 4.3 (65)	<b>Assignments</b> Activity 5.3 (65) Activity 5.4 (40)	<b>Assignments</b> Activity 6.3 (100)	<b>Assignments</b> Activity 7.3 (100)	<b>625</b>
<b>120</b>	<b>120</b>	<b>180</b>	<b>120</b>	<b>160</b>	<b>155</b>	<b>145</b>	<b>1000</b>

## Grading Scale

A: 90-100% | B: 80-89% | C: 70-79% | F: <69%

## Course Schedule and Weekly Checklist

### Start Here

- MON: Activity 1.1: Meet Your Peers - Introductory Post

### Week 1 – Introduction to Special Populations

- WED: Activity 1.1: Meet Your Peers – Follow-Up Post
- WED: Activity 1.2: Knowledge Check Week 1
- WED: Activity 1.3: Pathophysiological Changes in Special Populations - Introductory Post
- SAT: Activity 1.3: Pathophysiological Changes in Special Populations – Follow-Up Post
- SUN: Activity 1.4: Personalized Exercise Plan for Obesity and Diabetes

## **Week 2 – Cardiovascular Health Management**

- ❑ WED: Activity 2.1: Knowledge Check Week 2
- ❑ WED: Activity 2.2: Cardiovascular Health and Effective Program Plan – Introductory Post
- ❑ SAT: Activity 2.2: Cardiovascular Health and Effective Program Plan – Follow-Up Post
- ❑ SUN: Activity 2.3: Designing a Cardiovascular Exercise Program

## **Week 3 – Pulmonary Disease Management**

- ❑ WED: Activity 3.1: Knowledge Check Week 3
- ❑ WED: Activity 3.2: COPD Case Study – Introductory Post
- ❑ SAT: Activity 3.2: COPD Case Study – Follow-Up Post
- ❑ SAT: Activity 3.3: Final Project — Part I Literature Review
- ❑ SUN: Activity 3.4: Respiratory Health Exercise Plan

## **Week 4 – Musculoskeletal Health**

- ❑ WED: Activity 4.1: Knowledge Check Week 4
- ❑ WED: Activity 4.2: Arthritis and Mobility-Enhancing Exercise Regimens – Introductory Post
- ❑ SAT: Activity 4.2: Arthritis and Mobility-Enhancing Exercise Regimens – Follow-Up Post
- ❑ SUN: Activity 4.3: Respiratory Health Exercise Plan

## **Week 5 – Aging and Exercise**

- ❑ WED: Activity 5.1: Knowledge Check Week 5
- ❑ WED: Activity 5.2: Aging Physiology and Exercise Programs – Introductory Post
- ❑ SAT: Activity 5.2: Aging Physiology and Exercise Programs – Follow-Up Post
- ❑ SAT: Activity 5.3: Activity 3.3: Final Project — Part II Framework Development
- ❑ SUN: Activity 5.4: Senior Fitness Program Design

## **Week 6 – Bone Health and Women’s Fitness**

- ❑ WED: Activity 6.1: Knowledge Check Week 6
- ❑ WED: Activity 6.2: Exercise Throughout Pregnancy and Menopause – Introductory Post
- ❑ SAT: Activity 6.2: Exercise Throughout Pregnancy and Menopause – Follow-Up Post
- ❑ SUN: Activity 6.3: Final Project—Part III: Development and Evaluation of an Inclusive Exercise Program for Special Populations

## **Week 7 – Neurological Disorders and Rehabilitation**

- ❑ WED: Activity 7.1: Knowledge Check Week 7

- WED: Activity 7.2: Neuroplasticity and Functional Recovery – Introductory Post
- SAT: Activity 7.2: Neuroplasticity and Functional Recovery – Follow-Up Post
- SAT: Activity 7.3: Course Reflection

### **Tips for Success**

Online learning requires self-discipline and self-direction. As seekers of the truth, we should be willing to challenge one another's academic work in a spirit of respectful comradery. Your course is a place for you to grow as you benefit from the expertise, experience, and diverse perspectives of your instructor and peers. Constructive feedback will challenge you to stretch your own thinking, thereby expanding your knowledge and understanding.

To get the most out of your learning experience, you should actively engage (participate) in **ALL** course activities. Course elements are arranged chronologically. To complete a week, simply work your way "down the page" through all of the course materials and activities.

### **For More Information:**

Be sure to review the [Support, Policies, and Procedures](#) addendum.