Queensborough Community College

**Department:** Health, Physical Education and Dance

**Course:** HE 108: Health and Physical Fitness

**Pre-requisites and co-requisites:** COREQ BE122 OR BE226

**Hours and credits:** 3 credit hours

**Course Description:** An inquiry to the concepts of health, physical fitness, physical performance and wellness. Factors such as nutrition, body composition and weight control, principles of physical conditioning, physiology of exercise, and other issues related to optimal physical performance will be considered. The classroom lectures will be supplemented by laboratories and demonstrations using available gym facilities to provide students the opportunity to assess their present state of physical fitness. The student should be able to formulate a program of self-improvement in relation to their individual goals after completion of this course of study.

**Curriculum/curricula:** HE 108 is an elective course for A.A., Associates in Arts; A.A., Associates of Liberal Arts; and A.S. Associates in Science. It is also a suggested course for students planning to continue in health sciences.

**General Education Objectives**

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<tr>
<th>General educational objectives addressed by this course</th>
<th>Briefly describe activities in the course which help students meet each of these general education objectives</th>
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<tbody>
<tr>
<td>1. Students will write, read, listen, and speak clearly and effectively.</td>
<td>Students will produce a research proposal of a health and physical fitness topic by gathering, interpreting, and assessing health and physical fitness information from a variety of sources and points of view.</td>
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<td>2. Students will use analytical reasoning skills and apply logic to solve problems.</td>
<td>Students will assess their present state of physical fitness, describe their results and develop a health and fitness plan based on their lifestyle and recommended guidelines.</td>
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<td>3. Students will integrate knowledge and skills in their major field and across disciplines.</td>
<td>Students will conduct scientifically-based fitness assessments for children and adults, describe the results to the participants and discuss recommended guidelines to achieve optimal health and physical fitness for a variety of populations.</td>
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<td>4. Students will use information management skills effectively for academic research and lifelong learning.</td>
<td>Students will produce a well-reasoned written argument on the validity, reliability and implications of a health and physical fitness resources. Students will incorporate health and physical fitness concepts discussed in class, from other resources and personal experiences.</td>
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## STUDENT LEARNING OUTCOMES

<table>
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<th>Course objectives</th>
<th>Learning outcomes</th>
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<tbody>
<tr>
<td>(Note: copy objectives from Table 4 directly into this column.)</td>
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</table>
| 1. Students will discuss interactive approaches to optimal physical fitness and health. | a. A student will describe physical activity, nutrition and behavior modification as interrelated factors of optimal physical fitness and health.  
   b. A student will articulate and evaluate the empirical evidence of the scientific theories of exercise science, nutrition and behavior modification.                                                                                                                                                                                                                                                                                        |
| 2. Students will describe the fundamental concepts of anatomy, physiology and kinesiology as it relates to physical fitness and health. | a. A student will identify and apply fundamental concepts of anatomy, physiology and kinesiology as it relates to physical fitness and health.  
   b. A student will identify and describe the structures, functions and exercise applications of neuromuscular, musculoskeletal and cardiopulmonary systems.                                                                                                                                                                                                                                                                                     |
| 3. Students will discuss energy production during physical activity for optimal physical fitness and health. | a. A student will identify and differentiate between the various energy pathways during physical activity.  
   b. A student will explain how physical fitness causes metabolic changes and improved health effects.                                                                                                                                                                                                                                                                                                                                 |
| 4. Students will describe scientific nutrition guidelines for optimal physical activity performance and weight management. | a. A student will explain scientific nutritional needs before, during and after exercise for optimal performance and recovery.  
   b. A student will describe scientific nutritional needs for weight management.                                                                                                                                                                                                                                                                                                                                 |
| 5. Students will discuss behavior modification in physical fitness performance. | a. A student will describe methods of behavior change for physical fitness performance and adherence.  
   b. A student will identify and describe the risk factors, prevention and treatment of maladaptive behaviors related to health and physical fitness.                                                                                                                                                                                                                                                                                                                                 |
| 6. Students will discuss physical activity considerations for special populations and various medical conditions. | a. A student will describe physical activity considerations for special populations including, children, pregnancy, obesity, older adults and adaptive needs.  
   b. A student will describe exercise-induced conditions and other medical considerations.                                                                                                                                                                                                                                                                                                                                 |
| 7. Students will describe injury prevention and treatment during exercise. | a. A student will identify common acute and chronic injuries related to physical activity.  
   b. A student will describe methods of injury prevention and treatment for common acute and chronic injuries.  
   c. A student will describe the impact of environmental factors such as heat, cold, and altitude on physical performance.                                                                                                                                                                                                                                                                                                                                 |
| 8. Students will perform physical fitness assessments for adults and children. | a. A student will demonstrate cardiopulmonary, strength, muscular endurance, body composition and flexibility assessment techniques using various technologies.  
   b. A student will explain the results of the assessments and describe recommendations for improved health and physical fitness.                                                                                                                                                                                                                                                                                                                                 |
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| 9. Students will discuss the impact of technologies and scientific discoveries on consumer health. | a. A student will articulate and evaluate the impact of technologies and scientific health and physical fitness discoveries as it relates to consumer health.  
b. A student will describe the ethical concerns related to scientific research and consumer health. |
| 10. Students will describe the scientific principles underlying matters of health policy and public health concerns in which science plays a role. | a. A student will describe the scientific principles underlying the implementation of health policies.  
b. A student will discuss the scientific reasons and subsequent actions taken for public health concerns that impact the individual, schools, communities and society. |

**Summary of main topics covered in the course:**

1. **Physical Fitness and Health: An Interactive Approach** – a discussion of the importance and interaction of physical activity, nutrition and behavior modification for improved health and performance.

2. **Principles of Physical Fitness Development** – to identify and apply fundamental concepts and methods of physical fitness to the achievement of optimal health; to identify and describe the structures, functions and exercise applications of neuromuscular, musculoskeletal and cardiopulmonary systems.

3. **Fitness Assessment and Program Design** – demonstration and performance of cardiopulmonary, muscular endurance and strength, flexibility and body composition fitness assessments; designing fitness program based on scientific principles and personal goals.

4. **Optimal Nutrition for Physical Fitness** – energy pathways, metabolic functioning and optimal nutrition for enhanced physical fitness and weight management.

5. **Understanding and Enhancing Health Behaviors** - health and physical fitness program adherence; risk factors, prevention and treatment of maladaptive behaviors; physical fitness techniques for stress reduction and improved wellness.

6. **Physical Fitness Considerations for Disease Prevention and Health Promotion** – health benefits of physical fitness; designing physical fitness programs for special populations and various medical conditions.

7. **Injury Prevention and Treatment** – precautions for safe and effective exercise program design; discussion of common injuries related to physical activities.

8. **Health Consumerism** – discussion of the efficacy of health and physical fitness products; discussion of the ethical responsibilities of manufacturers.
9. **Physical Fitness and Public Health Promotion** – evaluation of the scientific principles underlying the implementation of health policies; discussion of the reasons and actions taken for public health concerns that impact the individual, schools, communities and society.

**Example Texts/Readings/Bibliography Recommended for the Course:**


**Methods by which Student Learning will be Evaluated:**

1. Course Assessment

2. Examinations

3. Writing assignments, including reflection papers
4. Performance of physical fitness assessments
5. Health and physical fitness research paper
6. Participation in high impact educational strategies such as, writing intensive, learning communities, e-portfolios, and service learning.

Low-stakes writing assignments:
7. One-minute paper on the most compelling part of the lesson.
8. Short paragraph on what concept the student had the most difficulty.

Academic Integrity:

Academic integrity is taken extremely seriously and is expected of all students. All assignments must be the original work of the student (or partners or group, if applicable). All questions or concerns regarding ethical conduct should be brought to the course instructor. “It is the official policy of the College that all acts or attempted acts that are violations of academic integrity be reported to the Office of Student Affairs (OSA). At the faculty member’s discretion and with the concurrence of the student or students involved, some cases, though reported to the OSA, may be resolved within the confines of the course and department. The instructor has the authority to adjust the offender’s grades as deemed appropriate, including assigning an F to the assignment or exercise or, in more serious cases, an F to the student for the entire course” (QCC Academic Integrity Policy).

Accommodations for Students with Disabilities:

Any student who needs specific accommodations based on the impact of a disability should register with the office of Services for Students with Disabilities (SSD) to be eligible for accommodations that are determined on an individual basis. The SSD office is located in the Science Building, room S132 (718-631-6257). Students should also contact their instructor privately to discuss their specific needs.