

NASSAU BOCES - ADULT EVENING PROGRAM  
Joseph M. Barry Career & Technical Education Center  
1196 Prospect Ave.  
Westbury, NY 11590

COURSE OUTLINE

Course Name:           **Personal Trainer**  
Weeks:                 10  
Sessions:              20  
Hours:                 70  
Days/Time             Tue/Thu 6:30pm-10:00pm  
Instructor:           Robert Gallagher  
Required Textbook:   American Council on Exercise (ACE) Study Guides  
Prerequisites:        None  
Adult evening Office: (516) 622-6950

Course Overview:

This course provides a study of basic exercise science, nutrition, fitness assessment, exercise programming and instruction and spotting techniques. It is designed to prepare students to have the information to successfully pass the ACE Personal Trainer Certification exam. ACE practice exams will be utilized to help in your preparation for the ACE exam. The role of a personal trainer is to have a complete picture of the knowledge, instructional techniques and professional responsibilities needed to provide safe and effective exercise instruction to their client.

ACE Personal Trainer preparatory course is a unique teaching method of both academic and practical hands-on training. Class grade will be based on class participation and homework assignments. You will be allowed three absences. Students will be responsible for work that they miss due to an absence and will be held accountable. Students will only be allowed to arrive late up to four times and two lateness's will equal an absence.

Course Topics

*Week 1*

**Lecture: Exercise Physiology**

- Physiology of the CRS
- Energy Production
- CRS Responses to Exercise
- Guidelines for CR Fitness
- Neuroanatomy
- Adaptations to Strength Training
- Guidelines for Strength Training
- Flexibility Training

**Lecture: Human Anatomy**

- Anatomical Terminology
- Cardiovascular System
- Respiratory System
- Nervous System
- Skeletal System
- Muscular System

*Week 2*

**Lecture: Biomechanics and Applied Kinesiology**

Biomechanics  
Balance and Alignment  
Posture and Muscle Imbalance  
Human Motion Terminology  
Muscles and Movement

**Lecture: Nutrition**

Nutrients  
Nutrient Needs for the Physically Active Adult  
Protein  
Fat  
Heart Disease  
Vitamins, Minerals and Hydration

**Floor:** Chest exercises

*Week 3*

**Lecture: Health Screening**

Health Screening Forms  
Health Conditions that Affect Physical Activity  
Medications  
Physical Screen

**Lecture: Testing and Evaluation**

Cardiorespiratory Testing and Evaluation  
Body Composition Testing and Evaluation  
Flexibility Testing and Evaluation  
Muscular Strength and Endurance Testing and Evaluation

**Floor:** Back exercises

*Week 4*

**Lecture: Cardiorespiratory Fitness and Exercise**

Benefits of Cardiorespiratory Fitness  
Components of an Aerobic Exercise Program  
Training Methods  
Guidelines for Cardiorespiratory Activity  
Monitoring Cardiorespiratory Exercise  
Special Considerations and Safety

**Lecture: Muscular Strength and Endurance**

Strength Benefits  
Strength Factors  
Strength Training Equipment  
Strength Training Guidelines  
Strength Program Considerations  
Strength Plateaus

**Floor:** Shoulder exercises

*Week 5*

**Lecture: Strength Training Program Design**

Designing Resistance Training Programs  
Proper Intensity  
Periodization  
Record Keeping

**Lecture: Flexibility**

The Mechanics of Stretching  
The Stretch Reflex  
Types of Stretching  
Factors Affecting Flexibility  
Principles of Stretching  
Flexibility Exercises

**Floor:** Arm exercises

*Week 6*

**Lecture: Programming for the Healthy Adult**

Exercise for Physical Fitness vs. Health and Disease Prevention  
Health Screening  
Physical Fitness Testing  
Aerobic Exercise Mode  
Designing an Exercise Program  
Rate of Progression and Retesting

**Lecture: Special Populations and Health Concerns**

Chronic Diseases  
Low Back Pain  
Older Adult  
Weight Management  
Exercise and Children  
Exercise and Pregnancy

**Floor:** Leg exercises

*Week 7*

**Lecture: Principles of Adherence and Motivation**

Motivating Clients to Adhere to their Programs  
Understanding Motivation

**Lecture: Communication and Teaching Techniques**

Stages of the Personal Trainer/Client Relationship

**Floor:** Core exercises/Training sessions

*Week 8*

**Lecture: Basics of Behavior Change and Health Psychology**

Determinants of Behavior  
Principles of Behavior Change  
Behavioral Change Strategies  
Implementing Behavioral Change

**Lecture: Musculoskeletal Injuries**

Types of Tissue  
Tissue Reaction to Injury  
Acute Treatment of Musculoskeletal Injuries

**Floor:** Training sessions

*Week 9*

**Lecture: Emergency Procedures**

**Lecture: Legal Guidelines and Professional Responsibilities**

Independent Contractors vs. Employees  
Contracts and Business Structure  
Scope of Practice  
Legal Responsibility and Liability Insurance  
Going green with fitness

*Week 10* **Preparing for the Exam and Full Course Review**