

Course Syllabus

This course guides students through an in-depth examination of the effects of exercise on the body. Students learn how to exercise efficiently and properly, while participating in physical activities and applying principles they've learned. Basic anatomy, biomechanics, physiology, and sports nutrition are all integral parts of this course.

Units & Tasks

This course is divided into the following Units and Sections.

- **Course Introduction**
- **Unit 1: Exercise Science**
 - 1.1 Fitness Assessment & Goals
 - 1.2 Exercise Programming
- **Unit 2: Basics of Physical Fitness**
 - 2.1 Safety
 - 2.2 Components of Physical Fitness
- **Unit 3: Body Systems**
 - 3.1 Terminology
 - 3.2 Respiratory System
 - 3.3 Skeletal System
- **Unit 4: Cardiovascular System**
 - 4.1 Cardiovascular System
 - 4.2 The Heart
- **Unit 5: Muscular System**
 - 5.1 Muscular System
 - 5.2 Muscle Physiology
- **Unit 6: Nutrition**
 - 6.1 Digestive System
 - 6.2 Energy Nutrients
 - 6.3 Energy Systems
- **Unit 7: Post Assessment**
 - 7.1 Post Assessment

Within each section you will find the following tasks to view or complete:

1. **Game Plan**—an outline of tasks for that section
2. **Lesson**—multimedia lessons about fitness topics
3. **Sprint**—links to credible sites with additional fitness information
4. **Team Huddle***—class discussion on an assigned topic
5. **Assignment***—section assignment
6. **Quiz***—test your comprehension and understanding of the lessons
7. **Fitness Log***—a record of your workout sessions for each week

The items noted with an asterisk above are those that must be submitted for a grade. The “Course Introduction” section has more detailed information on the tasks for this course.

Exercise Requirements

1. You are required to have 12 weeks of physical activity for this course.
2. Your weekly workouts must equal at least 3 hours of physical activity accumulated over at least three days of the week.
3. Each week's workouts must include elements of cardio, strength, and flexibility training as outlined below.

CARDIO

- **Minimum of 90 minutes of cardio per week**
- Specify which cardio activities
- Cardio workouts, ideally, can be done every day of the week
- A cardio workout means that your heart rate is elevated within your target zone (approximately 135-180 bpm)

STRENGTH

- **Minimum of 30 minutes of strength training per week**
- Specify which muscles were worked and with what equipment
- You should work every major muscle or muscle group at least once during the week
- Remember, when strength training you should allow your muscles to rest for at least 48 hours before working the same muscles again
- If you want to strength train every day, alternate upper body one day and lower body the next

FLEXIBILITY

- **Minimum of 5-10 minutes of stretching at the end of every cardio or strength training workout**
- Other optional flexibility workouts such as yoga or Pilates can be included as well

Assignments and Grading

Each section of this course is designed to be completed in about one week's time. Please see the detailed course outline for more information on points possible and due dates.

Advanced PE 1

Recommended Materials

There are no required materials or equipment for this course.

Though not required, you may find it helpful to have access to exercise and strength training equipment, such as weights or a resistance band, as well as a heart rate monitor or watch

Technical Requirements

Please refer to the *Technical Requirements* page in the course for more information.