THE OXFORD COLLEGE DIVISION OF PHYSICAL EDUCATION AND DANCE
PE 106 Aerobic Movement Syllabus
Fall 2004

Instructor: Ms. Gayle Doherty **Office: Gym 103 H**
Class Time: M-W-F 12:50 – 1:40 (by the Seney clock) **Phone: 4-8352**

Office Hours
Monday/Wednesday – 2:00 – 3:00
Tuesday/Thursday - 12:00 – 1:00
Friday – 10:30 – 11:30

COURSE DESCRIPTION: This course is a survey of health and fitness topics with a focus on cardiovascular training. Related topics will include **f**exibility, strength training, injury, stress management, nutrition and body composition.

TEXT: Fitness & Wellness – fifth edition – Werner W. K. Hoeger and Sharon A. Hoeger
The course syllabus, calendar and all other handouts for this course are posted on the class conference on LearnLink. Go to Oxford College → Class Conferences → Oxford: PE

DRESS: Athletic shoes are required. Aerobic shoes or cross trainers are recommended. Clothing should be nonrestrictive and appropriate for the classroom. Failure to conform to the dress code will result in a penalty absence.

COURSE REQUIREMENTS AND GRADING SYSTEM:

A = 90 - 100 B = 80 - 89.9 C = 70 - 79.9 D = 60 - 69.9 F = Below 59.9

7%	Questions	Students will submit a set of test questions with answers for each set of readings throughout the semester
8%	Practical	A physical test of body alignment and exercise technique
10%	Journal	A weekly reflection on each student's lifestyle choices
15%	Test # 1	A written test on chapters 1, 2 & 3
15%	Test #2	A written test on chapters 5 & 6
15%	Test #3	A written test on chapters 7 & 8
30%	Participation	An evaluation of daily participation throughout the semester See attached attendance policy

The Oxford College Honor Code applies and is respected in this class. All work must be submitted truthfully and must be each student's own work

COURSE OBJECTIVES:

Students will:

1) Practice cardiovascular training by participating in aerobic workouts in class.
2) Demonstrate selected techniques for the safe and effective practice of aerobic dance
3) Analyze their lifestyles by keeping a weekly journal.
4) Help lead class discussions by creating a set of test questions with answers for each set of readings.

Students will be able to:

Trace:

- the path of oxygen from the time it enters the body until it reaches the muscles
- the path of carbon dioxide from the time it is created in the muscles until it exits the body

Calculate:

- a target heart range based on his or her age, resting heart rate and an appropriate intensity level

Students will be able to name and discuss:

- the stages of the transtheoretical model, behavior modification principles, and characteristics that make goals more effective and achievable.
- the 2 basic personality types

Students will be able to explain:

- the difference between physical activity and exercise
- how skill related fitness contributes to health related fitness
- why no single fitness test can provide a complete measure of overall physical fitness
- what important information is missing in a body mass index
- why a hip to waist ratio is a valuable source of health information
- why it is not a good idea to stop aerobic exercise abruptly
- what action should be taken if muscles do not recover within 2-3 days after a strength training session
- the difference between essential and nonessential amino acids
- the undesirable condition that makes protein accessible for energy use
- the findings of a study on obese men who were physically active and average weight men who were not active
- what is actually lost with most fad or extreme low calorie diets
- what is the best way to think about a diet
- which kinds of exercise are recommended for extremely heavy people
- why the body becomes better at using fat after following an aerobic training program over a period of time
- how carcinogenic substances that form on the skin or surface of grilled meat can be decreased
- how the chronic use of any drug can lead to an increased tolerance of the drug

Students will be able to name:

- the dimensions of wellness
- the components of health related fitness
- 5 ways an individual can benefit from a fitness and wellness program
- 3 major points of focus in the US Health Objectives for the year 2010
- 5 health benefits of a moderate aerobic training program
- 5 benefits of a flexibility program
- why body composition and not weight should be the focus of our attention
- 2 lifestyle habits that are associated with obesity in very thin people
- 3 ways in which aerobic exercise improves the cardiorespiratory system

- the essential ingredient required to produce energy for aerobic activity
- 3 characteristics of aerobic activity
- the different types of stretches and their benefits or drawbacks
- 2 diseases that are associated with high levels of saturated fat and cholesterol in the diet
- the disease or condition that is increased with a diet high in salt
- 6 essential nutrients
- the energy nutrient that provides the major source of calories used for energy
- the category of carbohydrate that has little nutritive value
- the category of carbohydrate that is nutrient dense and provides fiber
- 5 health disorders associated with a lack of fiber
- 5 ways to increase fiber in one's diet
- the 2 major classifications of fiber
- the disease that can be reduced by the kind of fiber that speeds up the passage of food through the intestines
- the kind of fat that is solid at room temperature
- 2 kinds of plant oils that are saturated
- the kind of fat that tends to raise blood cholesterol
- the energy nutrient that is intended to build and repair tissue in the body
- the "building blocks" of protein
- the 2 classifications of vitamins
- the water soluble vitamins
- the fat soluble vitamins
- the most crucial nutrient involved in almost every body process
- the types of food in which water is most abundant
- the disease or condition that can be blocked, disrupted, reduced and even reversed by phytochemicals
- the richest sources of phytochemicals and antioxidants
- the lowest caloric level that is recommended for dieters so that they can still maintain proper nutrition
- the 4 antioxidants (that get the most attention)
- molecules that attack and damage proteins and lipids particularly cell membranes and DNA
- compounds that protect the body by absorbing free radicals
- 5 possible toxic effects associated with an overdose of one of the antioxidants
- 5 health problems associated with anorexia nervosa
- 5 health problems associated with bulimia
- 5 different health conditions that are associated with obesity
- 3 traditional assumptions about weight control that are being reevaluated
- 2 reasons why the loss of lean tissue is undesirable
- 2 kinds of exercise that can accelerate desirable weight loss – what does each do?
- 5 tips for healthy eating for weight loss
- 5 diseases that are related to chronic distress
- 5 healthy ways to release anger
- 5 ways to change a Type A personality
- 5 symptoms of chronic stress (distress)
- 5 ways to improve time management skills
- 5 healthy ways to handle stress
- 5 lifestyle habits that can increase longevity
- 5 Coronary Heart Disease risk factors
- 5 ways in which aerobic exercise helps to control most of the major risk factors for heart and blood vessel disease
- 5 ways to control mild hypertension
- 4 ways to raise HDL levels
- 4 ways to lower LDL levels

- 5 ways, besides medication, that a person can help control diabetes
- 5 guidelines for determining whether a person should have an ECG before beginning an exercise program
- the vitamin that seems to fight off the effects of nitrosomines
- the substance that when combined with tobacco use, increases mouth, larynx, throat, esophagus and liver cancers.
- 5 of the 7 warning signs of cancer:
- the kind of locus of control that supports a change in behavior - the kind that does not
- the area of the body where an accumulation of fat can aggravate back pain
- the muscular source of many cases of back pain
- what needs to be combined with a proper diet to reduce the loss of lean tissue and increase the loss of fat
- what actually determines whether or not a stressor has a positive or negative effect
- the 2 characteristics of Type A people associated with stress related diseases
- the role of religion or spirituality in a wellness lifestyle
- what makes people with diabetes more vulnerable to arteriosclerosis, CHD, heart attacks, high blood pressure and stroke
- the single largest cause of preventable illness and premature death in the U.S..
- the actual cause of death from A.I.D.S.

Students will be able to recognize the definition of:

- a metabolic profile
- cardiorespiratory endurance
- flexibility
- hypertrophy
- atrophy
- muscular strength
- muscular endurance
- dynamic or isotonic exercise
- an isometric contraction
- a concentric contraction
- an eccentric contraction
- fiber
- energy balancing equation
- set point
- basal metabolic rate
- fight or flight
- eustress
- distress
- systolic
- diastolic
- hypertension
- HDL
- LDL
- homocysteine
- type I diabetes
- type II diabetes
- syndrome X
- benign tumor
- malignant tumor
- cruciferous vegetables
- lycopene
- polyphenols

- nitrosomines
- basal cell carcinoma
- squamous cell carcinoma
- malignant melenoma
- chronic obstructive pulmonary diseases

Students will be able to state:

- how cardiorespiratory endurance is measured or determined
- how much 1 pound of muscle tissue can raise an individual's resting metabolism
- the average weight gain per year for an American over 25
- the average loss of lean tissue for an American over 25
- the upper level of intensity (% of maximum heart rate) at which additional fitness benefits will cease
- the general recommendation for the length of an aerobic exercise session in order to achieve improvements
- the number of exercise session needed per week in order to maintain cardiorespiratory fitness
- the recommended number of aerobic exercise sessions per week (before improvements become minimal)
- how much moderate aerobic exercise is required if the goal is health benefits rather than fitness
- the basic requirement for a program designed to increase muscular strength
- the basic requirement for a program designed to increase muscular endurance
- the amount of time that muscles should be rested between strength training sessions
- the most effective time to do flexibility exercises
- the percentage range that temperature can increase or decrease flexibility
- how many calories are in a gram of protein, fat carbohydrate, and alcohol
- how many ounces of meat, poultry or fish are recommended daily
- what increases in body composition as blood cholesterol and triglycerides increase
- the amount of calories that would need to be decreased to lose 1 pound of fat
- the role of sit-ups in getting excess fat off the abdominal area
- how many calories should be in a serving of bread or cereal
- how many calories should be in a serving of fruit
- how many calories should be in a serving of vegetables
- how many calories should be in a serving of dairy
- how many calories should be in a serving of meat, poultry, fish, eggs nuts
- how many ounces are in a standard cup
- the equivalent servings of fruit compared to 12 ounces of fruit juice
- the annual cost of stress in the US in terms of health care costs, lost productivity and absenteeism
- the point when age become a risk factor for coronary heart disease for men? For women?
- the percentage of cancers related to lifestyle (such as diet, sexual and reproductive activities, tobacco use, alcohol abuse) or exposure to environmental hazards.
- the average life expectancy for a smoker compared to a nonsmoker.
- the amount of time in a tanning bed that is as dangerous as a day in the sun
- how long before exposure to the sun should screen be applied
- what the sun protection factor (SPF) of sun screen should be