

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO

COURSE OUTLINE

Course Title: FITNESS I

Code No.: REC 106 Semester : ONE

Program: LAW AND SECURITY ADMINISTRATION

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APPROVED

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School of Human Sciences and
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DATE:

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Fitness and Recreation
Instructor: A. Morrison

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I. COURSE DESCRIPTION

The intent of this course is to provide students with skills and knowledge in a variety of fitness activities which will have lifelong appeal and will contribute to physical fitness as a way of life.

II. COURSE OBJECTIVES

Upon successful completion students will be able to:

- a) identify and apply principles of training, the FITT formula, and monitoring techniques to their personal fitness routine (through written tests and assignments).
- b) describe the physical, and psychological values of physical fitness.
- c) demonstrate basic skills in a wide variety of lifelong sports and recreational activities.
- d) identify sport specific warm-ups, precautions, and fitness benefits for volleyball, badminton, cycling, jogging, and weight training.
- e) demonstrate understanding of weight training principles by setting up their own program.
- f) Assess the value of a new exercise by identifying the exercise's risk and benefits as well as any special precautions.
- g) participate during in-class, self-directed learning tasks and other class activities as assessed by spot checks of on-task activity.
- h) apply sound nutritional practices related to physical fitness.
- i) demonstrate that they have made a personal commitment to regular exercise by improving their fitness scores on the following standardized tests:
 - 1. 12 minute run or 1.5 mile run
 - 2. sit and reach
 - 3. one minute sit-up test
 - 4. one minute push-up test

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IMPORTANT:

For safety reasons, some individuals with genetic conditions or permanent disabilities resulting from injuries will be tested with alternate test measures such as the **3 mile walk test** or **Modified curl-up test**.

III. TOPICS TO BE COVERED

1. Introduction to Fiteness
2. Benefits of Fitness
3. Motivation
4. Muscular Strength and Endurance
5. Cardiovascular Fitness
6. Flexibility
7. Nutrition
8. Weight Control
9. Fitness Testing

IV. LEARNING ACTIVITIES

1.0 Introduction to Fitness

Upon successful completion of this unit, students should be able to:

Unless otherwise indicated on page reference refer to the required text, pg. 5-7

- 1.1 Explain why health is a matter of choice.
- 1.2 Define health-related and performance related fitness
- 1.3 Describe the components of fitness related to health and the components related to performance

pg. 9-10

pg. 9-10 and lecture notes

2.0 Benefits of Fitness

Upon successful completion of this unit students should be able to:

- 2.1 Describe how the death and disease patterns are changing
- 2.2 Identify the risk factors of cardiovascular disease
- 2.3 Identify the role of exercise in reducing the risk of cardiovascular disease
- 2.4 Identify other chronic diseases and the role exercise may play in managing them

pg- 26-27

pg- 31-35

pg. 64-69

pg. 90-104

3.0 Motivation

Upon successful completion of this unit, students should be able to:

- 3.1 Identify the factors on which initiating and complying to an exercise program are dependent pg. 108
- 3.2 List the reasons most often offered by exercise dropouts pg. 109
- 3.3 Identify "Wood's" list of reasons for dropping out pg. 109
- 3.4 Describe the profile of the typical exerciser pg. 109, 110
- 3.5 Describe why people do exercise pg. 113
- 3.6 Describe motivational strategies pg. 117-123
- 3.7 Define "burn out"

4.0 Muscular Strength and Endurance

Upon successful completion of this unit, the student should be able to:

- 4.1. Describe the benefits of weight training Handout-Weight Training For Beginners
- 4.2 Define isotonic muscular contraction pg. 197
- 4.3 Describe and demonstrate concentric and eccentric muscular contractions pg. 197
- 4.4 Define muscular strength and muscular endurance pg. 198-199 lecture notes
- 4.5 Define agonist and antagonist pg. 198
- 4.6 Describe relative and absolute muscular endurance pg. 199
- 4.7 Describe how muscular endurance and muscular strength may be measured pg. 229-236
- 4.8 Discuss the relationship between strength training and wellness pg. 199
- 4.9 Discuss the strength development of men compared to women pg. 204
- 4.10 Explain the mechanisms responsible for the development of strength for men and women pg. 206
- 4.11 Discuss the role of anabolic steroids as well as their potential dangers to users who attempt to gain muscle size and strength lecture notes and in-class discussion
- 4.12 Discuss the importance of warm-up and cool-down in isotonic muscle training programs pg. 211
- 4.13 Describe and demonstrate a proper warm-up for weight training In-class lecture material gym demonstration

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- 4.14 Compare isometric training, isotonic training and isokinetic training pg. 208-212
- 4.15 Describe circuit training and the advantages of using this system pg. 213
- 4.16 Compare application of the FIIT formula for muscular endurance and muscular strength in-class lecture material
- 4.17 Describe why the statements on the beginner weight training manual are myths or fallacies Handout "Weight Training for Beginners"
- 4.18 Define and describe the relationship between frequency, intensity, duration, overload and progression, as they apply to resistance training pg. 215
- 4.19 Discuss the reasons for acute and delayed muscle soreness during and after resistance training pg. 215
- 4.20 List safety tips that one should be aware of prior to starting a resistance training program pg. 216
- 4.21 Identify and locate the major muscle groups of the body Handout "Weight Training for Beginners"
- 4.22 Demonstrate exercises which may develop the major muscle groups of the body

5.0 Cardiovascular Fitness

Upon successful completion of this unit, the student should be able to:

- 5.1 Define and differentiate between anaerobic and aerobic activities
- 5.2 Describe the production of ATP by both aerobic and anaerobic processes pg, 129
- 5.3 Discuss the mechanism by which the body selects carbohydrates for high intensity exercise pg. 129
- 5.4 Demonstrate two methods for determining target heart rate for exercise pg, 145-147, in class lecture material, gym demonstration
- 5.5 Demonstrate the ability to take the pulse rate at the wrist and at the carotid artery in-class demonstration
- 5.6 Describe the Borg Perceived Exertion Scale and discuss the advantages of using it to monitor the intensity of exercise pg. 149
- 5.7 Describe the application of the FITT formula to cardiovascular fitness in-class lecture material

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- 5.8 Define progression, overload, and specificity of training pg. 151
- 5.9 Define cross-training and describe the advantages of this form of training
- 5.10 Discuss the importance of cooling down after exercise pg. 153
- 5.11 Describe high-risk flexibility exercises pg. 139-144

6.0 Flexibility

Upon successful completion of this unit, the student should be able to:

- 6.1 Define flexibility pg. 242
- 6.2 Describe factors limiting flexibility pg. 242
- 6.3 Describe the relationship between flexibility and lower back pain pg. 242
- 6.4 Develop the flexibility component pg. 2.42
- 6.5 Compare static vs dynamic stretching pg. 244, 137
- 6.6 Describe the right way to warm up pg. 244
- 6.7 Describe proprioceptive neuromuscular facilitation stretching techniques pg. 137
pg. 246-251
- 6.8 Describe or illustrate stretches for the shoulders, arms upper back, lower back, chest, groin quadriceps, gastrocnemius and soleus in-class lecture material
gym demonstration

7.0 Nutrition

Upon successful completion of this unit, students should be able to:

- 7.1 Describe the make-up of carbohydrates from simple to complex pg. 261
- 7.2 Identify the types of sugars and provide some examples of each pg. 261
- 7.3 Define and differentiate between crude fibre and dietary fibre pg. 261
- 7.4 Differentiate between soluble and insoluble fibre and give some examples of each pg. 262
- 7.5 Identify foods that are rich sources of fibre pg. 263
- 7.6 Identify the three major types of lipids pg. 265
- 7.7 Discuss the difference between saturated and unsaturated fat and discuss their effects on cardiovascular disease pg. 265
- 7.8 Identify the two types of unsaturated fat and describe their effect on cardiovascular disease pg. 265
- 7.9 List food sources that are rich in mono-saturated fat and polyunsaturated fat pg. 265
- 7.10 Identify the two essential fatty acids pg. 265

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- 7.11 Describe the role of Omega - 3 fatty acid on cardiovascular disease pg. 266
- 7.12 Discuss the major functions of protein pg. 267
- 7.13 Identify combinations of vegetables which yield complete proteins pg. 269
- 7.14 Describe the potential problems associated with consuming vegetarian diets pg. 269
- 7.15 Identify the water soluble and fat soluble vitamins pg. 272,273
- 7.16 Discuss the consequences of relying on vitamin supplements to balance our nutritional needs pg. 271 and lecture material
- 7.17 Identify the consequences of taking mega doses of water soluble and fat soluble vitamins pg. 271, 272, 273
- 7.18 Discuss the guidelines for healthy eating pg. 276

8.0 Weight Control

Upon successful completion of this unit, the student should be able to:

- 8.1 Define body composition pg. 287
- 8.2 Define essential and storage fat pg. 287
- 8.3 Describe the relationship between body composition and wellness pg- 290
- 8.4 Explain the effect of exercise on body composition pg. 292
- 8.5 Discuss the effect of exercise upon short and long term appetites pg. 294
- 8.6 Discuss the problems associated with very low caloric diets pg. 301
- 8.7 Describe cycle dieting and discuss its effectiveness as a weight loss technique pg. 301
- 8.8 Describe the guidelines that should be followed by the underweight when they attempt to gain weight pg. 302

V. ASSIGNMENTS

1. Maintain a six day record of your personal weight training program. Include at least 10 different free weight and/or universal exercises. The date of exercise, training load, number of reps and number of sets should be clearly written.

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2. Using Assignment #1, examine your personal program and identity three examples of applications of "Principles of Training" (ie. specificity...)

Describe each example by:

- a) briefly restating the principle of training (in your own words)
- b) identifying where in your program the example of this principle is found.
- c) explaining how your example demonstrates the application of this principle of training.

Due:

3. Answer the following questions in a short anatomy presentation. Locate and describe how you stretch and strengthen one muscle. (Muscle assigned by your instructor.) Students who are absent may hand in this assignment in essay form.

Due:

4. Anatomy Design Worksheet

Due:

5. Students will each have a turn setting up and dismantling equipment. Care of equipment and proper set-up will be evaluated.

Due:

VI METHODS OF EVALUATION

Assignments and in-class projects	30%
Final Fitness Test (Dec 2-6)	20%
Written Test #1	15%
Written Test #2	15%
Final Written Exam	20%
Attendance and Participation	10% bonus marks
(0 gym absence - 10 marks, 1 absence - 8 marks, 2 absence - 6 marks...)	

NOTE;

Late assignments will be penalized 2% per day. Assignments will not be accepted 7 days after the due date.

VII. REQUIRED STUDENT RESOURCES

Frank D. Rosato, "Fitness and Wellness: The Physical Connection"
(Available in College Book Store)

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VIII. COLLEGE GRADING POLICY

90-100% - A+
80- 89% - A
70- 79% - B
60- 69% - C
Below 60 **R (Repeat Course)

SPECIAL NEEDS

Students with special needs (eg. physical limitations, visual impairments, hearing impairments, learning disabilities) are encouraged to discuss required accommodations confidentially with the instructor.

NOTE

Your instructor reserves the right to modify the course as he/she deems necessary to meet the needs of students.

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