

SIMON FRASER UNIVERSITY

MEMORANDUM

S.315
SENATE PAPERS

Dr. I. B. Kelsey,

Director of Secretariat Services

Subject Kinesiology 043-3

From B. L. Funt, Chairman,

Interdisciplinary Committee on Kinesiology

Date November 25, 1969

On November 20th the Senate Committee on Kinesiology held a further meeting, at which time course 043-3 was considered. After full discussion, the Committee approved the course description of Kinesiology 043-3 and recommended that it be forwarded to Senate.

With reference to your query, there is only one course, Kinesiology 043-3 and any reference to Kinesiology 243-3 was a typographical error.

I trust that the course will be considered at the earliest opportunity.

c.c Dr. J. A. P. Day
Physical Development

B. L. Funt

I

CALENDAR INFORMATION

Department: Kinesiology

Course Number: Title:

043-3 Exercise Management

Sub-title or Description:

Principles of exercise management for adults with emphasis on cardiovascular function. Open to men and women. No prerequisites except medical clearance.

Credit Hours: 3

Vector Description 1-0-3

Pre-requisite(s): Nil

II

ENROLLMENT AND SCHEDULING

Estimated Enrollment: 50-60

Semester Offered each semester

When course will first be offered: Fall 1970

III

JUSTIFICATION

- A. Ongoing cardiovascular training studies have demonstrated effective principles for inducing beneficial structural and function changes in adults.
- B. There is a plethora of popular literature: 52X, XBX, Aerobics, Jogging, which has awakened an interest in training phenomena. Lack of exercise has been associated with coronary heart disease and other hypokinetic disease entities.
- C. Unfortunately, most university students are woefully ignorant of physiological processes and do not have enough background to evaluate claims and promotions.
- D. There is a continual badgering of Kinesiology faculty members engaged in cardiovascular training studies to explain training phenomena and design programs for students.
- E. This can best be done by lecture, participation in training, evaluation of training results, reading physiologically oriented literature and guided writing assignments.

- F. Kinesiology faculty includes medical and scientific personnel who have experience and demonstrated ability to conduct meaningful academic experiences in this area.
- G. Teaching Assistants currently are undergoing training in exercise management and a number of thesis topics are related directly to the area of concern.

IV BUDGETARY AND SPACE FACTORS

- A. Lecture space once per week gymnasium allocation MWF 11.30-12.30 (feasible)
- B. Duncan, Ross, Day, Danister have been funded by various grant agencies for conduct of cardiovascular training studies. They are competent in the area and can offer a general education course with substantial medical-scientific content. There are also immediate and demonstrable health benefits.
- C. This course represents a major general education enrichment at minimal costs.

APPROVAL - Faculty Undergraduate Curriculum Committee:

Faculty:

Senate:

Kines. 043-3 Exercise Management ~~for adults~~ (1-0-3)

Principles and practices in exercise management for adults with special reference to the cardiovascular system. Medical clearance, no other prerequisite, open to men and women students.

Purpose:

1. To survey current medical and scientific opinion regarding cardiovascular training of adult men and women.
2. To teach individually appropriate exercise regimens and monitoring techniques.
3. To induce beneficial structural and functional changes and to assess these changes using gross indicators.

Basic Textbook:

Shepard, R.J. Endurance Fitness, University of Toronto, 1969

Associated Readings:

1. Ald. Roy. Jogging, Aerobics and Diet. Signet Book, 1968
2. Sowerman, William T., and W.E. Harris. Jogging. Gorgie Books, 1968
3. Cooper, Kenneth H. Aerobics. Bantam Book, 1968
4. Curoton, Thomas Kirk. The Physiological Effects of Exercise Programs on Adults. Charles C. Thomas, 1969

Medical Examinations:

By private physician or through Health Services

Topical Outline of Lectures:

1. Medical Aspects of Exercise Management
2. Movement Components and Human Adaptability
3. Oxygen Transport System: Description, Function, Assessment
4. Musculoskeletal Problems and Prophylactic Practice

5. Exercise Programs: BOX, AAU, Isometrics, Cureton Approach, Jogging, Aerobics, Exercise Management
6. Metabolic Cost and Fat Reduction
7. Resistive Exercise
8. Aquatic Cardiovascular Training Techniques
9. Cardiovascular Response to Standard Tests: Step. Bicycle Ergometer, Runs.
10. Physical Fitness: Meaning, Need, Development
11. "Run Young"; "Fitness After Forty": S.F.U. Movies and Discussion.
12. Exercise Precautions and Their Rationale.
13. Therapeutic Exercise for Medical Problems
14. Exercise Principles For Adults.

Student Demand:

Twice, Faculty Fitness was "liberated" by students and the faculty members listed above have been continually buffeted by student requests for this kind of a course.

Faculty

Four faculty members of the Kinesiology faculty have been engaged in cardiovascular training research with total grant funding in excess of \$200,000. They are currently conducting exercise management classes for faculty and staff in a program which has been successfully maintained for the last four years.

Course Experiences

1. Lecture - once per week, team taught with physicians and Kinesiologists presenting lectures related to their areas of research specialization.
2. Laboratory - three times per week. Essentially the laboratory experience consist of a) guided exercise b) with rationale clearly identified c) physiological response observed.
3. Assignments - two assignments: a) critical reviews of a book or monograph on exercise as a modality b) personal training diary complete with all assessment data and its interpretation.
4. Mid-semester test - 30 minutes: mainly concerned with reading assignments and interpretation of training assessment data.
5. Final examination - 2 hours, comprehensive, consisting of multiple choice, true and false and why, analogy questions, fill-in-the-blanks, annotating diagrams, problem solving and choice of three essay questions, the general topic of which will be announced at mid-semester although the specific statement of the questions will be unidentified until it appears on the final examination.

Grading Plan:

		<u>Points</u>
<u>Assignments</u>		
a. review		200
b. diary		200
<u>Mid-semester test</u>		200
<u>Final examination</u>		400
<u>Total points</u>		<u>1000</u>

Standards

A		over 900
B		800 - 899
C		700 - 799
D		600 - 699
F		under 600

Degree of Difficulty

The anticipated G.P.A. is 2.50 ± 0.20 . This could be raised slightly if all potential D and F students are advised in time to permit them to drop the course without grade jeopardy.