SIMON FRASER UNIVERSITY

MEMORANDUM

To: Senate

From: Senate Committee on
Undergraduate Studies

Subject: School of Kinesiology -
New Course Proposals

Date: October 15, 1986

Action undertaken by the Senate Committee on Undergraduate Studies at its meeting of October 14, 1986 gives rise to the following motion:

MOTION:

> "That Senate approve and recommend approval to the Board
> of Governors, as set forth in S.86-55 the proposed
>
> New courses - KIN. 203-3 Computer Applications in Kinesiology
>   KIN. 426-3 Neuromuscular Anatomy"

Subject to the approval by Senate and the Board of Governors the Senate Committee on Undergraduate Studies approved waiver of the normal two-semester time lag requirement to permit first offering of KIN. 203-3 in Spring 87-1.

SIMON FRASER UNIVERSITY

MEMORANDUM

To.........R..Heath,.Registrar................

From.....J,.Blanchet,.Secretary,...............

...........Faculty..of.Applied.Sciences.Undergraduate
Studies Committee.

Subject....New.Course..Proposals,.Kinesiology......
(ASU. 86-3).

Date............September.19/86...................

At a meeting of the Faculty of Applied Sciences Undergraduate
Studies Committee held on Tuesday, September 16, 1986 members of the committee
approved the following two new course proposals:

KIN. 203-3, Computer Applications in Kinesiology.

KIN. 426-3, Neuromuscular Anatomy.

Would you please place these two courses on the next agenda of
the Senate Committee on Undergraduate Studies for consideration by that committee.

SENATE COMMITTEE ON UNDERGRADUATE STUDIES

NEW COURSE PROPOSAL FORM

1. Calendar Information   Department: KINESIOLOGY

   Abbreviation Code: KIN   Course Number: 203   Credit Hours: 3   Vector: 2-0-2

   Title of Course: Computer Applications in Kinesiology

   Calendar Description of Course:

   An introductory course on the various applications of computers to the study
   of Kinesiology. Topics to be covered include operating systems and programming
   languages, computer simulations, computer aided instruction, data capture and
   analysis, and real-time control.

   Nature of Course

   Prerequisites (or special instructions):

   Kin. 100, Kin. 142

   What course (courses), if any, is being dropped from the calendar if this course is
   approved: none

2. Scheduling

   How frequently will the course be offered?   once yearly

   Semester in which the course will first be offered? 87-1

   Which of your present faculty would be available to make the proposed offering
   possible?   Dr. Goodman, Dr. Davison

3. Objectives of the Course

   To provide students with the necessary knowledge and skills to successfully
   incorporate the computer in a variety of situations.

4. Budgetary and Space Requirements (for information only)

   What additional resources will be required in the following areas:

   Faculty   nil

   Staff   Graduate teaching assistant

   Library   Books to be placed on reserve

   Audio Visual   nil

   Space

   Equipment   microcomputers and software

5. Approval

   Date: 2 Sept '86   D. A. George
                               Per J. K Shanchet
                               Sept 19/86
   _____   _____   _____
   Department Chairman   Dean   Chairman, SCUS

SCUS 73-34b: (When completing this form, for instructions see Memorandum SCUS 73-34a.
attach course outline).

KINESIOLOGY 203.

COMPUTER APPLICATIONS IN KINESIOLOGY

D. Goodman

Kinesiology 203 is intended as an introduction to computing applications of particular interest, but not limited to students of Kinesiology. While no prior computing experience is required, access to a computer is a necessity. It is anticipated that information garnered in this course will be helpful to those wanting to use their computer in further studies. Students who wish to develop programming skills are advised to take CMPT 103.

TOPICS:

(1)   Introduction

(2)   Operating systems and programming languages

(3)   Computer simulations (computers in physiology)

(4)   Computer aided instruction (computers in Kinanthropometry)

(5)   Communications and Networking

(6)   Searching Bibliographic Data Bases

(7)   Word Processing and Data Management

(8)   Data analysis 1 Descriptive

(9)   Data analysis 2 Inferential

(10) Acquisition of analogue information (computers in biomechanics)

(11) Controlling and Timing Events (computers in motor control)

(12) Computer Imaging

(13) Artificial intelligence

(14) Sport analysis

Lectures will be supplemented by lab time during which the student will work on projects designed to reinforce/expand lecture material. Weekly assignments will require use of the computer at times other than the regularly scheduled lab times. This might well create some scheduling nightmares (be prepared and tolerant).

COURSE REQUIREMENTS:

(1)	Lab assignments	50%
(2)	Course project	25%
(3)	Final exam	25%

1. **Calendar Information**   Department: Kinesiology

   Abbreviation Code: KIN.   Course Number: 426   Credit Hours: 3 Vector: 2-1-1

   Title of Course: Neuromuscular Anatomy

   Calendar Description of Course: This course explores human neuromuscular anatomy
   using a lecture format supplemented by course readings, an anatomy atlas and
   tutorials which are presented in an interactive fashion via the MacIntosh
   computer laboratory on campus. A strong grounding will be given in neuroanatomy
   with additional emphasis on the limb musculature and its innervation.

   Nature of Course

   Prerequisites (or special instructions):
   KIN. 326
   60 credit hours

   What course (courses), if any, is being dropped from the calendar if this course is
   approved:
   none.

2. **Scheduling**

   How frequently will the course be offered?   once yearly

   Semester in which the course will first be offered?   87-3 (has been offered with
   success as an elective (KIN. 422-3) in 86-1 and will be in 86-3)
   Which of your present faculty would be available to make the proposed offering
   possible?
                                  D. Hedges, M. D.

3. **Objectives of the Course**

   To supplement our students' background in anatomy with particular reference to
   the anatomy of the nervous system, which must necessarily be covered only
   briefly in the one-semester course KIN. 326, but which nonetheless is of clear
   intrinsic interest to kinesiologists and of special reference to electives
   offered in neurophysiology as well as to KIN. 306.

4. **Budgetary and Space Requirements** (for information only)

   What additional resources will be required in the following areas:

   Faculty   none

   Staff   none

   Library   none (texts are already on hand in the library)

   Audio Visual   minimal (overhead projector, slide projector)

   Space   for lectures twice weekly; six hours weekly for open labs in Mac Lab
                                    (MacIntosh computer facility on campus)
   Equipment   as for any elective course

5. **Approval**

   Date: _2nd Sept 86_ . _____ _Sept 19/86_ _____

   _____   _____   _____
   Department Chairman   Dean   Chairman, SCUS

SCUS 73-34b: (When completing this form, for instructions see Memorandum SCUS 73-34a.
attach course outline).

KIN. 426 NEUROMUSCULAR ANATOMY

D. Hedges/J. Anthony

Prerequisites: KIN. 326,
60 credit hours

Texts: Barr, M. S. & J. A. Kiernan, The Human Nervous System, Fourth Edition.
Bertram, E. G. M. & K. L. Moore, An Atlas of the Human Brain and
Spinal Cord.

(both texts required)

Course Format: Two one-hour lectures and one one-hour tutorial per week.

Lecture Schedule (rough outline):

Origins of the nervous system
Brainstem: external anatomy; nuclei & tracts; cranial nerves.
Cerebellum: cross anatomy; fine structure.
Diencephalon: thalamus; hypothalamus, pituitary.
Striate cortex.
Hemispheres: topography; internal capsule.
Olfactory system.
Limbic system.
Visual system.
Auditory system.
Vestibular system.
Spinal cord: cross anatomy, nerve roots & dermatomes; tracts & gray matter.
Ventricles, meninges & blood supply.
Autonomic nervous system.
Major peripheral nerves: brachial plexus, lumbosacral plexus.
Muscles: upper extremity, lower extremity (four lectures).
Review.

Marking: Tutorial quizzes (5) -- 20%
Practical exam -- 30%
Written final -- 50%
100%

This course will serve to expand your knowledge of neuroanatomy based on your earlier work in KIN. 326, and thus will help you to make better sense of your neurophysiology courses and help you to justify calling yourselves kinesiologists. There will be considerable demands on you to memorize names and structures, as is natural in any anatomy course.

SIMON FRASER UNIVERSITY

MEMORANDUM

To.. From...... N.M.G. Bhakthan

The Registrar

.... School of Kinesiology

Subject........ Waver for offering   Date...... Oct. 14, 1986
.... Kin. 203-3 in 1987-1

Kin. 203-3 (Computer Applications in Kinesiology) is being
proposed as a new course for today's meeting of SCUS. If
the course is approved, it is requested that permission be
given to offer this course in 1987-1. Otherwise it will
have to be offered as Kin. 421-3 as a special topic course.
We do not wish that upper division credits be given to a
course which is being proposed as a lower division course.
Hence the request for the waver.