

MEMORANDUM

To..... SENATE

From..... SENATE COMMITTEE ON UNDERGRADUATE STUDIES

Subject..... CHANGES - MATHEMATICS

Date..... NOVEMBER 15, 1983

Action undertaken by the Senate Committee on Undergraduate Studies at its meeting of November 15, 1983 gives rise to the following motion:-

MOTION:

"That Senate approve and recommend approval to the Board of Governors, as set forth in S.83-98 , the proposed

New course MATH 452-3 - Set Theory."

Subject to the approval of this course by Senate and the Board of Governors, the committee approved waiver of the normal two semester time lag requirement to permit first offering of the course in Summer 84-2.

FOR INFORMATION

Acting under delegated authority at its meeting of November 15, 1983 the Senate Committee on Undergraduate Studies approved the following:-

i) Change of titles -

MATH 272-3 From Introduction to Probability and Statistics
To Introduction to Probability and Statistics I

MATH 372-3 From Mathematics Statistics I
To Introduction to Probability and Statistics II

ii) Revision and renumbering of the present MATH 375-3
From: MATH 375-3 Mathematics and Statistics II

Sampling Theory and Bayesian approaches to inference. Types of probability distributions. Bayesian decision theory. Methods of maximum likelihood. Illustrations of the different methods.

Prerequisites: MATH 251-3 (or 253-4), and 272-3 (or 371-3). Students with credit for MATH 489-3 may not receive credit for MATH 375-3.

To: MATH 475-3 Decision Analysis and Bayesian Inference

Review of marginal and conditional distributions. Prior, posterior and predictive distributions. Utilities, decision analysis under certainty, decision trees, backward induction. Bayesian estimation and hypothesis testing, comparison with classical methods.

MATH 475-3 (contd.)

Prerequisites: MATH 372-3 (or corequisite by permission of the instructor). Students with credit for MATH 375-3 or 489-3 may not receive credit for MATH 475-3.

iii) Title change, description change, prerequisite change:

From: MATH 100-3 Survey of College Mathematics

This course is designed for students with relatively weak mathematical backgrounds. It will introduce them to applications of college mathematics and prepare them for MATH 151-3, 154-3 or 157-3.

Prerequisites: B.C. High School Algebra 11 or permission of the department. Students with B.C. High School Algebra 12, its equivalent or any further university level Mathematics courses (with the exception of MATH 190-3 or 191-3), may not normally take this course for credit.

Note: Students will not be permitted to register concurrently for MATH 100 and any of MATH 144, 151, 154, and 157.

To: MATH 100-3 Precalculus

Algebraic, exponential, logarithmic and trigonometric functions and their graphs. Conic sections. Applications.

Prerequisites: B.C. High School Algebra 11 or permission of the Department. This course may not be taken for credit by students who already have credit for any Mathematics course for which this course (or B.C. High School Algebra 12) is a prerequisite.

Note: Students will not be permitted to register concurrently for MATH 100 and MATH 144. Students with grades of C or C+ in B.C. High School Algebra 12 (or equivalent) intending to take MATH 151, 154, or 157 must take MATH 100 concurrently or (preferably) before attempting the Calculus courses. Students with grades of D or P in B.C. High School Algebra 12 (or equivalent) intending to take MATH 151, 154, or 157 must take MATH 100 before attempting the Calculus courses.

SIMON FRASER UNIVERSITY

SCUS 93-53A

MEMORANDUM

F-83-3

To..... Mr. Harry Evans.....
..... Registrar.....
Subject..... MATH 452-3, Set Theory.....

From..... G.A.C. Graham, Chairman.....
..... Mathematics Department.....
Date..... October 25, 1983.....

The course MATH 452-3, Set Theory, received the approval of the Faculty of Science on October 13, 1983. We would like to offer this course for the first time in Summer 1984.

I wish to request a waiver of the Senate Regulation that provides for an eight month lead time between approval and first offering of this course.

G.A.C. Graham

G.A.C. Graham

GACG/pel

SIMON FRASER UNIVERSITY

MEMORANDUM

F-83-3

To..... Dr. A. Sherwood, Chairman
..... Faculty of Science
..... Undergraduate Studies Committee
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Subject..... COURSE PROPOSAL

From..... R. Routledge, Chairman
..... Department of Mathematics
..... Undergraduate Studies Committee
.....
Date..... 4 February 1983

Attached is a proposal for a new 400-level course in set theory which our department would like to have approved. The proposal involves no additional resources. MATH 451-3 is currently offered every year.

If this proposal were adopted, MATH 451-3 and the new course, MATH 452-3, would be offered in alternate years.

R. Routledge

R. Routledge

RR/c11

SENATE COMMITTEE ON UNDERGRADUATE STUDIESCOURSE PROPOSAL FORMCalendar InformationDepartment: MathematicsAbbreviation Code: MATH Course Number: 452 Credit Hours: 3 Vector: 3-0-0Title of Course: SET THEORY

Calendar Description of Course:

Introduction to Zermelo Fraenkel set theory.

Nature of Course

Prerequisites (or special instructions):

MATH 242 or permission of department.

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? Every 2 years

Semester in which the course will first be offered? 84-2

Which of your present faculty would be available to make the proposed offering possible: Thomason, Lachlan, Mekler

Objectives of the Course

Set theory provides the foundation for mathematics. For any student with even a passing interest in the foundations of mathematics this course is essential.

4. Budgetary and Space Requirements (for information only)

What additional resources will be required in the following areas:

Faculty None, since the frequency of MATH 451-3 will be decreased.

Staff

Library

Audio Visual

Space

Equipment

5. ApprovalDate: January 31, 1983.OCT 24 1983G. A. C. Graham

Department Chairman

J. F. Graham

Dean

Chairman, SCUS

Course Description

Axioms and Operations

Relations and Functions

Natural Numbers

Construction of the Real Numbers

Cardinal Numbers and the Axiom of Choice

Ordering and Ordinals

Other topics as time permits

Text: ELEMENTS OF SET THEORY, H. Enderton,
Academic Press, New York, 1977