

Routing # 25 69-70

Resolution #22 1969-1970

TO: PRESIDENT ALBERT W. BROWN

FROM: THE FACULTY SENATE

Meeting on December 15, 1969
(Date)

RE: X I. Formal resolution (Act of Determination)
 II. Recommendation (Urging the fitness of)
 III. Other (Notice, Request, Report, etc.)

SUBJECT: Revised Major in Mathematics

Dr. Conrad moved, Dr. Hewitt seconded, that the proposal by the Mathematics Department be accepted as submitted.

Motion carried: unanimously.

(See attached papers)

Signed _____ Date Sent: 12/16/69
(For the Senate)

TO: THE FACULTY SENATE

FROM: PRESIDENT ALBERT W. BROWN

RE: I. DECISION AND ACTION TAKEN ON FORMAL RESOLUTION

- a. Accepted. Effective Date 1/15/70
- b. Deferred for discussion with the Faculty Senate on _____.
- c. Unacceptable for the reasons contained in the attached explanation

II, III. a. Received and acknowledged

b. Comment:

DISTRIBUTION: Vice-Presidents: Allen

Others as identified: Burke Pascale
Gammagno Hewitt
Rukod

Distribution Date: _____

Signed: Albert W. Brown
President of the College

Date Received by the Senate: _____

THE NATIONAL

The Mathematics Department wishes to alter its requirements for the major in mathematics. The changes would result in a substantial improvement in the depth and breadth of the student's training in mathematics. The institution of these changes is well within the capabilities of our Department and the proposed requirements are within the capabilities of those students with some aptitude for mathematics.

The proposed major is a balanced one in that the student will be prepared for teaching, industry or continued study in graduate school. The student's particular plans for the future will determine which additional courses he will take to complete his major. The revised major closely follows the recommendations of the national Committee on the Undergraduate Program in Mathematics (CUPM), a committee of the Mathematical Association of America. It is essentially the mathematics major offered in this country today.

This proposed revision is presented in a general spirit of understanding. The Department, mindful of the better preparation of the incoming freshman and mindful of his future needs, wishes to make the total experience as a mathematics major of maximum benefit to him.

As an aid to one who wishes to isolate the changes in order to evaluate them, we offer the following summary.

Both the current and the proposed majors require 9 hours of Calculus as part of the 30 hour requirement. The proposed major requires: Linear Algebra, Modern Algebra, Probability and Real Variables I. None of these is currently required although some students take them as electives (with the exception of Probability, a new offering). The current major allows Matrix Algebra in place of Modern Algebra and permits the possibility of a mathematics major student graduating with no Modern Algebra, no Linear Algebra, no Probability and no Real Variables. This has not been the norm for our students but if there is one such student, then he has met our current requirements but is extremely deficient in his training. The proposed major does not require the Mathematics Seminar which would become an elective. The goals of such a seminar would be achieved in other ways: in particular, through independent study.

The current requirements and the proposed ones appear on page 2 of this Proposal.

PROPOSED MAJOR IN MATHEMATICS

MTH 201, 202, 203	Calculus I, II, III	9 hrs.
MTH 424	Linear Algebra	3 hrs.
MTH 425	Modern Algebra (formerly MTH 323)	3 hrs.
MTH 445	Probability	3 hrs.
MTH 457	Real Variables I	3 hrs.
	Mathematics Electives (at 300 level or higher)	<u>9 hrs.</u>
		30 hrs.

PRESENT MAJOR IN MATHEMATICS

MTH 201, 202, 203	Calculus I, II, III	9 hrs.
MTH 323 } or MTH 423 }	Modern Algebra } Matrix Algebra }	3 hrs.
MTH 331 } or MTH 431 }	College Geometry } Modern Euclidean Geometry }	3 hrs.
MTH 391	Mathematics Seminar	3 hrs.
	Mathematics Electives by Advisement	<u>12 hrs.</u>
		30 hrs.