

Glassboro State College Senate Curriculum Committee

Approval Form

Proposal Title: MINOR CURRICULAR CHANGE - PRE - CALCULUS

Sponsor(s) MARCUS WRIGHT Dept.: MATH Ext. 6057

Check one: Course Specialization Concentration Minor Achievement Certificate
 Certification Program Major Program Minor Change FROM 3 TO 4 S.H.
(please name deletion or credit/catalog change)

Undergraduate Graduate TO 4 Credit Hours

<p>Step 1 (Department)</p> <p><input type="checkbox"/> Approved <u>5-90</u> Date</p> <p><input type="checkbox"/> Not Approved</p> <p><u>E. Weinstein</u> Dept. CC Chairperson</p> <p><input type="checkbox"/> Reviewed _____ Date</p> <p><u>M. Wright</u> Dept. Chairperson</p>	<p>Step 2 (Receipt)</p> <p><input checked="" type="checkbox"/> SCC# <u>90-91-9</u></p> <p>Proposal Received _____ Date</p> <p><u>OCT 18 1990</u></p> <p>GLASSBORO STATE COLLEGE CHIEF OF POLICE</p> <p><u>Spencer Mathewson</u> SCC Chairperson</p>	<p>Step 3 (School CC)</p> <p>Reviewed <u>2/6/91</u></p> <p><input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved</p> <p>Comments:</p> <p><u>Spencer Mathewson</u> School Curr. Comm. Chairperson</p>
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Step 4 (Academic Dean) **Comments:**

Recommend
 Not Recommend
 Conditionally Recommend (see comments)

Reviewed Feb 6 1991 Date

Spencer Mathewson
Signature, Dean of School

Step 5 (SCC)

Open Hearing 3/8/91 Date Approved by Senate Curriculum Committee 2/26/93 Date

Returned to sponsor(s) for the following reasons: failed; asked dept. members to consider 3 S.H. course for non-math majors & licensed staffers review with approval of another 4 S.H. course(s) submit syllabus of course to Academic Dept Chair

Step 6 (Senate)

Presented to Senate 3/5/93 Date Approved Not Approved

Notification to Executive Vice-President/Provost 3/5/93 Date

Spencer Mathewson
Signature, SCC Chairperson

Step 7 (Executive V.P./Provost)

Received _____

If no, reasons ^{Date} are as follows:

Approved Yes No

Student credit hours _____

Faculty load hours _____

Equalized credit hours _____

Official copy and approval sheet filed MAR 29 1999
Date

Signature, Executive Vice-President/Provost

Registrar

Approved course description received _____
Date

approved for Spring 99

Hegis Taxonomy and Course Number assigned _____

Signature, Registrar

Date

Notification forwarded:

- Senate Curriculum Committee Chairperson
- Department Chairperson(s)
- Academic Dean(s)
- Registrar
- Sponsor(s)

Department of Mathematics and Computer Science
Proposal for Minor Curricular Change
1701.122 - Pre-Calculus Mathematics

1. Details:

- a. Change requested: From 3 s.h. to 4 s.h.
- b. Sponsors: Mathematics Dept. Curriculum Committee.
(Faustino Gonzalez, Chairman, Marcus Wright, author)

2. Rational:

- a. Statement of need for change.

Pre-Calculus has been in our curriculum, with basically the same syllabus, for more than seven years. From the beginning, instructors have complained that it is impossible to cover this syllabus (without losing a large proportion of the initial enrollment) in the three semester hour format. If the syllabus is followed, the course is at least as demanding, considering the preparation of the students, as Calculus I, which is a four credit course. Instructors of the calculus courses agree that Pre-Calculus is an essential prerequisite to successful study of calculus.

These facts have repeatedly been brought to the attention of the Department over the years. Now that many of the members of the Department have had multiple experiences teaching the course the consensus is that the additional semester hour and the additional class meeting are necessary for adequate and uniform (across sections) coverage of the syllabus. In addition, we feel the need to incorporate recent technological advances, such as the advent of graphing calculators, into the instructional methods used in teaching this course. These methods involve more active learning in the classroom, which places an additional demand on class time.

- b. Statement of curricular effect and impact on program, department and/or curricular design.

There should be no direct curricular effects. We expect that the success rate for the course should improve considerably, diminishing the administrative load produced by students' dropping and retaking it. Students will be better and more uniformly prepared for the calculus courses. Having more time to devote to calculators and computers at this level will make it easier to use them in our other courses.

3. Results of Consultation:

- a. Letters soliciting consultation have been sent to:
Professor Leonard Bidwell, Math. Dept., Rutgers-Camden.
Professor Robert Lynch, Exec. Dir. Management Inst.
In addition, all full-time faculty teaching precalculus are in favor of this change.
- b. Evidence of consultation: will be forwarded when received.

Oct. 29, 1990

Dear Marcus,

I have received your note regarding the proposed increase in credits for your precalculus course from three to four.

The Mathematics Department at Rutgers-Camden has been trying to do precisely the same thing for the past several years.

For many years, we did have a precalculus course which carried four credits, and the comparable course at Rutgers-New Brunswick still does carry four credits.

A few years ago, the Camden faculty voted to put the College on a "three credit system" and the class-hour schedule was adjusted so that only three credit courses could be accommodated conveniently. At that time, many courses which had been taught for four credits were cut back to three.

The Mathematics Department made a special request that our calculus and precalculus courses be kept at four credits. We were denied permission for all but the three semesters of Unified Calculus.

We now have a precalculus course (covering both algebra and trigonometry) and a college algebra course (covering only the algebra content), each for three credits.

This results in a very fast pace for the precalculus course, causing student complaints and failures. We have tried since to have the number of credits for precalculus increased back to four but have not succeeded.

I think that there is no doubt that the material which must be covered in precalculus warrants four hours per week and four credits. I hope that you are more successful than we have been.

Sincerely,
Len Bidwell