DATE SUBMITTED: July 19, 2004

COLLEGE/SCHOOL: CMPS

DEPARTMENT/PROGRAM: Mathematics

PROPOSED ACTION (A separate form for each) ADD_____ DELETE_____ CHANGE____x____

DESCRIPTION (Provide a succinct account of the proposed action. Details should be provided in an attachment. Provide old and new sample programs for curriculum changes.)

The change is the addition of the following phrase: “With a grade of C or better”. Explicitly, the prerequisite would read: “MATH 140 with a grade of C or better, or equivalent.”

JUSTIFICATION/REASONS/RESOURCES (Briefly explain the reason for the proposed action. Identify the source of new resources that may be required. Details should be provided in an attachment.)

Students who receive a D in MATH 140 and then enroll directly into MATH 141 have only a slim chance of succeeding in MATH 141. See the attachment.

APPROVAL SIGNATURES

1. Department Committee Chair

2. Department Chair

3. College/School PCC Chair

4. Dean

5. Dean of the Graduate School (if required)

6. Chair, Senate PCC

7. Chair of Senate

8. Vice President for Academic Affairs & Provost

DATE

July 19, 2004

July 19, 2004

11/5/04

11/5/04

11/12/04

11/26/04

VPAAP Rev. 3/1/04
November 17, 2004

MEMORANDUM

TO: Stephen Halperin
Dean, College of Computer, Mathematical and Physical Sciences

FROM: Victor Korenman
Associate Provost for Academic Planning and Programs

SUBJECT: Proposal to Modify the Prerequisites for MATH141
(PCC Log No. 04028)

At its meeting on November 12, 2004, the Senate Committee on Programs, Curricula, and Courses approved your proposal to modify the prerequisites for enrollment in MATH141 by requiring a grade of “C” or better in MATH140. Please note that for these purposes a grade of “C-” counts as a “C”. A copy of the approved proposal is enclosed.

The change is effective in Spring 2005. The College should ensure that the new requirement is fully described in the Undergraduate Catalog, the Schedule of Classes, and in all other relevant descriptive materials, and that all advisors are informed.

VK: sfm
Enclosure

Cc: Dr. Sylvester Gates, Chair, Senate PCC
    Dr. Mary Giles, University Senate
    Ms. Mary Ann Granger, Office of the Registrar
    Ms. Barbara Hope, Data Administration
    Dr. Phyllis Peres, Undergraduate Studies
    Ms. Anne Turkos, Archives
    Dr. Scott Wolpert, College of Computer, Mathematical and Physical Sciences
    Dr. Linda Yokoi, Records & Registrations
Commentary and Documentation for the PCC Proposal Change for MATH 141

It is important to add the phrase “Math 140 with a grade of C or better” to the prerequisites for Math 141. On the one hand, Math 141 builds on all the important concepts of Math 140 (such as limit, continuity, derivative, integral, and graphs of functions). If a student has not understood adequately the material in Math 140, then the student is at great risk to understand the material in Math 141. Moreover, it slows down the progress of the Math 141 class. On the other hand, the success rate of those students who received a D in Math 140 and then took Math 141 is extremely low. Below we have data that shows that almost none of the students who did so succeeded in Math 141.

The following table summarizes the Math 141 grades for students who received a D in Math 140 during Fall 2002, or Spring 2003, or Fall 2003:

<table>
<thead>
<tr>
<th>MATH 141 grade after D in MATH 140</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>6</td>
</tr>
<tr>
<td>CC</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>10</td>
</tr>
<tr>
<td>F</td>
<td>12</td>
</tr>
<tr>
<td>W</td>
<td>4</td>
</tr>
<tr>
<td>WW</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
</tr>
<tr>
<td>Breakdown: Successful (A, B, or C)</td>
<td>9</td>
</tr>
<tr>
<td>Unsuccessful</td>
<td>31</td>
</tr>
</tbody>
</table>

Recapitulation: There were 40 students who received a grade of D in Math 140 during Fall 2002, Spring 2003, or Fall 2003, and then took Math 141 the next semester. 9 of them received A, B, or C in Math 141; the remainder did not. Of the 9 who were successful in receiving A, B, or C:

3 retook Math 140 during the summer prior to taking Math 141
2 received AP credit before taking Math 140
2 took Math 140 AFTER taking Math 141
2 had no additional rendezvous with Math 140

Conclusion 1: Only 2 out of the 40 who took MATH 141 directly after receiving a D in MATH 141 were successful and did not either retake MATH 140 afterward or receive AP credit for MATH 140.

Conclusion 2: Adding the phrase “Math 140 with a grade of C or better” gives an important message to students. If you have any questions, please contact me.

Denny Gulick, Associate Chair for Undergraduate Program, Department of Mathematics