

Faculty Senate Curriculum Committee

Approval Form

Proposal Title: PRE-REQUISITES FOR CALCULUS II

Sponsor(s): XIAOMING ZENG Dept.: DEPARTMENT OF MATHEMATICS
TOM OSLER and COMPUTER SCIENCE

Check one: Course Specialization Concentration Achievement Certificate
 Certification Program Major Program Minor Change PRE-REQUISITES CHANGE
(please name: deletion or credit/title/catalog change)

Undergraduate Graduate 4 Credit Hours

<p>Step 1 (Department)</p> <p><input checked="" type="checkbox"/> Approved <u>11/4/85</u> <small>Date</small></p> <p><input type="checkbox"/> Not Approved</p> <p><u>[Signature]</u> <small>Dept. CC Chairperson</small></p> <p><input checked="" type="checkbox"/> Reviewed <u>1/21/86</u> <small>Date</small></p> <p><u>[Signature]</u> <small>Chairperson, Dept.</small></p>	<p>Step 2 (Receipt)</p> <p>SCC# <u>85-86-61</u></p> <p>Proposal Received <u>12/4/85</u> <small>Date</small></p> <p><u>[Signature]</u> <small>Chairperson, SCC</small></p>	<p>Step 3 (School CC)</p> <p>Reviewed <u>1/19/86</u> <small>Date</small></p> <p><input checked="" type="checkbox"/> Approved</p> <p><input type="checkbox"/> Not Approved</p> <p>Comments: <i>Consultations listed - letters or other should be attached if any evidence presented at hearing</i></p> <p><u>[Signature]</u> <small>Chairperson, School Curr. Comm.</small></p>
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Step 4 (Academic Dean) Comments:

Reviewed 3/10/86
Date

[Signature]
Signature, Dean of School

Step 5 (SCC)

Open Hearing 4/15/86 Approved by Senate Curriculum Committee 5/2/86
Date Date

Returned to sponsor(s) for the following reasons:
change to corequisite

Step 6 (Faculty Senate)

Presented to Faculty Senate : 5/2/86 Approved Not Approved
Date

Notification to Vice-President Academic Affairs 5/2/86 [Signature]
Date Signature, SCC Chairperson

Step 7 (Vice-President for Academic Affairs)

Received 5/15/04
Date

Approved Yes No

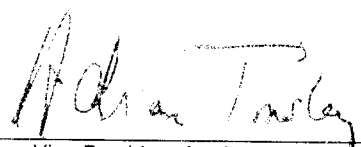
If no, reasons are as follows:

Student credit hours NA

Faculty load hours NA

Equalized credit hours NA


Official copy and approval sheet filed 9/16/86
Date


Signature 
Vice-President for Academic Affairs

Registrar

Approved course description received _____
Date

Hegis Taxonomy and Course Number assigned _____

Signature  _____
Registrar

 _____
Date

Notification forwarded: Senate Curriculum Committee Chairperson, Department Chairperson(s), Academic Dean(s), Registrar, Sponsor(s).

PROPOSAL FOR CHANGING PREREQUISITES FOR CALCULUS II

I. Existing prerequisites for Calculus II (1701.131) :

Presently, there is only one prerequisite for Calculus II, i.e., Calculus I (1701.130) .

II. Proposed change :

New prerequisites for Calculus II (1701.131) will be Calculus I (1701.130) , and Introduction to Computer Science (0701.102) or equivalent background as a prerequisite or corequisite.

III. Rationale :

1. The computer applications in mathematics should gradually be integrated into , perhaps, all mathematics courses. We have already shown applications to physics, biology, chemistry, economics, business, etc. in our mathematics courses. The availability of computers now makes it possible to show related computer applications as well. Actually, computers are becoming more prevalent in mathematics courses at colleges and universities across the county.
2. Computers help to make abstract ideas more concrete in student's minds. In Calculus II, we study the elementary transcendental functions such as exponential, trigonometric and logarithmic functions. Using computers these functions can be represented approximately by decimal numbers. Thus, use of computers in Calculus II enhances the student's understanding of these concepts of the functions.
3. Most students taking Calculus II have already had at least one computer course in programming in high school or college anyway. Thus this requirement will not deter many students from taking this course.

IV. Consultations :

Larry Delaney, Physical Sciences

Elizabeth Moore, Life Sciences

John Frisone, Psychology

Tom Hamer, Economics