FACULTY CURRICULUM COMMITTEE COURSE FORM

Contact Name: Robert Mignone
Email: mignonr
Phone: 5730

Department or Program Name: Mathematics
School name: SSM

Course Prefix, Number, and Title: MATH 307 Discrete Structures II

I. CATEGORY OF REVIEW (Check all that apply)
(Note: For changes to course, if you check more than two separate changes, you must create a new course.)

NEW COURSE
- □ New Course (attach syllabus)

CHANGE COURSE
- □ Change Number
- □ Change Title
- □ Change Credits/Contact hours
- □ Prerequisite Change
- □ Edit Description

DELETE COURSE
- □ Re-activate Course
- □ Delete Course

□ Approve for Cross-listing (attach rationale and written permission from relevant department)

□ Intended to fulfill a General Education requirement (new courses only). If this box is checked, the course must also be submitted for review by the General Education Committee using this form.

Date (Semester/Year) the course will first be offered:

What are the prerequisites AND OTHER RESTRICTIONS (e.g., class level, major, co-requisite, credit for a mutually exclusive course)?

CURRENT: MATH 203 or 207
PROPOSED: MATH 207 or 295 or permission of instructor

Will this course be added to the Degree Requirements of a Major, Minor, Concentration or List of Approved Electives?

a) □ Yes  □ No  NA no change to degree requirements in Computer Science

b) If yes, complete and attach the CHANGE DEGREE REQUIREMENT form(s) for each affected program. List the name(s) of each program affected below:


II. NUMBER OF CREDITS and CONTACT HOURS per week

A. Contact Hours

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Lab</th>
<th>Seminar</th>
<th>Ind. Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td></td>
<td></td>
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</tbody>
</table>

B. Credit Hours

3

Is this course repeatable? □ yes  □ no  If so, how many credit hours may the student earn in this course?
III. CATALOG DESCRIPTION  Limit to 50 words EXACTLY as you want it to appear in the catalog: include prerequisites, co-requisites, and other restrictions.

A continuation of MATH 207, including topics from graph theory, trees and relations. If time permits, additional topics may be chosen from finite automata and languages. F. S.

Prerequisite: MATH 207 or 295 or permission of instructor

IV. RATIONALE or JUSTIFICATION: If course change or deletion—please provide reasons for change(s) to or deletion of a course. If a new course—briefly address the goals/objectives for the course, how the course supports a major or minor program, etc. For non-major courses address how the course supports the liberal arts tradition and the mission of the institution.

Propositional logic and induction proofs are necessary prerequisites for MATH 307. Neither topics are covered in MATH 203 Linear Algebra and both are covered in MATH 295 An Introduction to Abstract Mathematics

V. STUDENT LEARNING OUTCOMES and ASSESSMENT

<table>
<thead>
<tr>
<th>Student Learning Outcomes</th>
<th>Assessment Method and Performance Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>What will students know and be able to do when they complete the course?</td>
<td>How will each outcome be measured? Who will be assessed, when, and how often? How well should students be able to do on the assessment?</td>
</tr>
<tr>
<td>1. Students will be able to model phenomena in mathematical terms.</td>
<td>The Department of Mathematics intends to use a direct measure method in the form of a course embedded assessment in exams or projects, where most appropriate and likely to effectively assess a particular outcome to specific grade-level thresholds.</td>
</tr>
<tr>
<td>2. Students will be able to derive correct answers to challenging questions by applying the models from Learning Outcome 1.</td>
<td></td>
</tr>
<tr>
<td>3. Students will be able to write complete, grammatically and logically correct arguments to prove their conclusions.</td>
<td></td>
</tr>
</tbody>
</table>
How does this course align with the student learning outcomes articulated for the major, program, or general education? What program-level outcome or outcomes does it support? Is the content or skill introduced, reinforced, or demonstrated in this course? MATH 307 reinforces all program student learning outcomes for the mathematics majors.

VII. IMPACT ON EXISTING PROGRAMS and COURSES: Please briefly document the impact of this new/changed/deleted course on other programs and courses; if deleting a course—list all programs that include the course; if adding/changing a course—explain any overlap with existing courses in the same or different departments.

MATH 307 is required for Computer Science majors and is an elective for Mathematics majors. Since MATH 207 Discrete Structures I is required of Computer Science majors, the proposed change in prerequisites for MATH 307 should not affect those majors. MATH 295 is required for all mathematics major tracks except the Actuarial Track. Students in tracks other than Actuarial should not be affected by this change should they choose to take MATH 307 as an elective. Students in the Actuarial Track would need to take MATH 295 or MATH 207 before taking MATH 307.

VIII. COSTS ASSOCIATED WITH THE ACTION REQUESTED: List all of the new costs or cost savings, (including new faculty/staff requests, library or equipment, etc.) associated with the action requested.

None anticipated

IX. APPROVAL AND SIGNATURES

1. Signature of Department Chair or Program Director:

[Signature]
Date: 3-19-2012

2. Signature of Academic Dean:
3. Signature of Provost:

Date: 3/21/12

4. Signature of Curriculum Committee Chair:

Date: 8/10/2012

5. Signature of Faculty Senate Secretary:

Date: 

Date Approved by Faculty Senate: 

Following Senate approval, the Faculty Senate Secretary will forward the entire packet to the Registrar.
Bob,
This is fine with me. CS majors will be held harmless by the change.
Sure. Let's talk about other math options.

On a related note, I would also like to talk to you about CSCI taking over MATH 207 and
MATH 307 and maybe Calculus 1 for just CSCI majors. We would teach them in computer
science under computer science acronyms.
Thanks,
Chris

Christopher Starr, PhD, Chair
Computer Science, College of Charleston
+1-843-953-8150
starrc@cofc.edu

-----Original Message-----
From: Mignone, Robert J
Sent: Mon 2/27/2012 5:18 PM
To: Starr, Christopher Wilson
Subject: Math 307

Chris,

We would like to propose a change to the prerequisite for math 307, replacing Math 203
with 295. Math 207 would remain, so it should not affect your majors.

The deadline for school approvals and hand off to Academic Affairs is Thursday. Proposal
attached. I'm passing it along to your first before circulating it to the other SSM
chairs. Sorry to rush you, but I'm seeking an email okay. As I said, I'll need to get it
to Academic Affairs by Thursday.

We should talk about possible options/alternatives for Math 260.

Bob