

## Justifications for Revisions in the Math & CS Curriculum

### **Revised Minor Programs:**

Specifying the core courses and then allowing flexibility to pick specific electives will increase the number of minors by allowing students to pick an emphasis appropriate to their interests.

Math Minor (18 credits): Core Courses: MAT 121-122 Calculus I & II

Emphasis electives:

- General Math: Any major & MAT 214 Linear Algebra, MAT 220 Set Theory & Logic OR MAT 213 Discrete Math, and MAT 221 Calculus III.
- Pre-Engineering: CSC, PHY, or CHE major & MAT 214 Linear Algebra, MAT 221 Calculus III, and MAT 222 Differential Equations
- Bio-Statistics: BIO major & and MAT 221 Calculus III and MAT 341-342 Math Stat I and II
- Middle School Math: Elementary EDU Major & MAT 211 College Geometry, MAT 213 Discrete Math, and MAT 310 Methods of Teaching Math

Computer Science Minor (18-22 credits): Core courses: CSC158-159 programming I & II

Emphasis electives:

- General Computer Science: Any major & CSC 254 Data Structures, CSC-353 Computer Organization and Assembly Language, CSC-354 Data Base Management and MAT-213 Discrete Math
- Computational Science: MAT, BIO, PHY, CHE or PSY major & MAT 120 OR MAT 121 calculus, MAT 212 Math Modeling, CSC 254 Data Structures, CSC 452 Computer OR CSC 455 Math & Stat Software Simulations, and 1 approved Computational Science related course from another Department (e.g. Bio-informatics, Computational Physics, etc)
- Informational Science and Computer Graphics: For future development

### **New/Revised Courses**

Revision in Numbering: MAT 341-342 Mathematical Statistics I & II (from 241-242)

The numbering of this sequence is changed from the 200 to the 300 level but the content is unchanged. This sequence is usually taken by juniors and seniors and is listed as 300 or 400 level courses in programs at other universities. The renumbering is more appropriate in reflecting the actual level of this course on the transcripts of our students.

Expanded course numbering: MAT 400-401 Topics in Math I & II and CSC 498-499 Topics in Computer Science I & II (currently CSC 450)

A one semester Topics course is currently listed in each subject, but since each time it is offered, the content is different, we have had students who took it twice, creating problems on their transcripts. Expanding this to 2 course numbers should eliminate that problem in the future.