

LSC Use Only
 Number: _____
 Action: _____
 Date: _____

UWUCC Use Only
 Number: 92-6
 Action: App
 Date: 11/10/92
Senate App 12/1/92

CURRICULUM PROPOSAL COVER SHEET
 University-Wide Undergraduate Curriculum Committee

I. Title/Author of Change

Course/Program Title: Mathematics Program, B.S.
 Suggested 20 Character Course Title: _____
 Department: Mathematics
 Contact Person: John Henry Steelman

II. If a course, is it being Proposed for:

- _____ Course Revision/Approval Only
- _____ Course Revision/Approval and Liberal Studies Approval
- _____ Liberal Studies Approval Only (course previously has been approved by the University Senate)

III. Approvals

<u><i>John H. Steelman</i></u> Department Curriculum Committee	<u><i>Quaid Burch</i></u> Department Chairperson
<u><i>W.S. Cole</i></u> College Curriculum Committee	<u><i>W.S. Cole</i></u> College Dean *
_____ Director of Liberal Studies (where applicable)	_____ Provost (where applicable)

*College Dean must consult with Provost before approving curriculum changes. Approval by College Dean indicates that the proposed change is consistent with long range planning documents, that all requests for resources made as part of the proposal can be met, and that the proposal has the support of the university administration.

IV. Timetable

Date Submitted to LSC: _____	Semester to be implemented: _____	Date to be published in Catalog: _____
to UWUCC: _____		

Part II.1. Catalog Description of Revised Program

Bachelor of Science - Mathematics

Liberal Studies: As outlined in Liberal Studies section with the following specifications:

50-52

Mathematics: (included in major)

Liberal Studies Electives:

no courses with MA prefix

Foreign Language Intermediate Level

Major:

40-41

Required Courses:

MA 127 Calculus I 4 sh

MA 128 Calculus II 4 sh

MA 171 Introduction to Linear Algebra 3 sh

MA 216 Probability & Statistics for Natural Science 4 sh

MA 227 Calculus III 4 sh

MA 241 Differential Equations 3 sh

MA 271 Introduction to Algebraic Structures 3 sh

Controlled Electives:

Four courses from list: 12 sh

MA371,421,422,423,424,427,476,477

A minimum of three additional semester hours from the list 3-4 sh

of controlled electives above or the following:

MA342,350,353,355,363,364,425,445,446,447,465,481

Other Requirements:

3

Computer Science:

CO 110 Problem Solving and Structured Programming 3 sh

Free Electives:

28-31

Total Degree Requirements:

124

Part II.2. Summary of Changes with Justification

The B.S. in Mathematics is being revised to ensure that these majors have an adequate grounding in the most important areas of mathematics as well as to remove the ambiguity in the current description of the major. Specifically, we propose the following changes:

1. Making the intermediate level foreign language requirement part of the Liberal Studies electives. Since the College of Natural Science and Mathematics no longer has a foreign language requirement, that requirement is being dropped from the catalog description. The Mathematics Department, however, requires a foreign language. The Liberal Studies electives satisfy this requirement.
2. Adding MA 216 (Probability and Statistics for Natural Sciences) as a required course in the major. Currently, the math program requires no probability and statistics of its majors. Yet many of the problems faced by the mathematician require an understanding of probability and statistics. This course would serve as an excellent foundation on which more advanced courses can build.
3. Adding MA 241 (Differential Equations) as a required course in the major. MA 241 is a proposed required course in that, to many mathematicians, differential equations represent the culmination of the calculus. Furthermore, differential equations and their solutions have applications to many problems in the sciences, business, economics, etc.
4. Adding a specified list of math elective courses. The current catalog refers to "major courses." To clarify which courses would be appropriate courses for the math major as electives, a list is given.

Part II.2. Comparison of Current VS Proposed Programs in Mathematics

CurrentProposed

Bachelor of Science - Mathematics
 Liberal Studies: As outlined in Liberal Studies 50-52
 section with the following specifications:
 Mathematics: (included in major)
 Liberal Studies electives
 no courses with MA prefix

Bachelor of Science - Mathematics
 Liberal Studies: As outlined in Liberal Studies 50-52
 section with the following specifications:
 Mathematics: (included in major)
 Liberal Studies electives
 no courses with MA prefix
 Foreign Language Intermediate level

College:
 Foreign Language Intermediate level (1) 0-6

Major: 40-41

Major: 36

Required Courses:

Required Courses:

MA 127 Calculus I 4sh
 MA 128 Calculus II 4sh
 MA 171 Intro to Linear Algebra 3sh
 MA 227 Calculus III 4sh
 MA 271 Intro to Algebraic Struct 3sh

MA 127 Calculus I 4sh
 MA 128 Calculus II 4sh
 MA 171 Intro to Linear Algebra 3sh
 MA 216 Prob & Stats for Nat Sci 4sh
 MA 227 Calculus III 4sh
 MA 241 Differential Equations 3sh
 MA 271 Intro to Algebraic Struct 3sh

Controlled electives:

Controlled electives:

Four courses from list: 12sh
 MA 371, 421, 422, 423, 424, 427,
 476, 477
 Additional MA credit from major 6sh
 courses

Four courses from list: 12sh
 MA371, 421, 422, 423, 424, 427,
 467, 477
 A minimum of three additional 3-4sh
 semester hours from the list of
 controlled electives above or one
 of the following:
 MA342, 350, 353, 355, 363, 364, 425,
 445, 446, 447, 465, 481

Other Requirements: 3

Other Requirements: 3

Computer Science:
 CO110 Problm Solvg & Structrd Progm 3sh

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 CO110 Problm Solvg & Structrd Progm 3sh

Free Electives: 27-35

Free Electives: 28-31

Total Degree Requirements: 124

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(1) Intermediate-level Language may be included in
 Liberal Studies elective.