UNIVERSITY FACULTY SENATE FORMS

Academic Program Approval

This form is a routing document for the approval of new and revised academic programs. Proposing department should complete this form. For more information, call the Faculty Senate Office at 831-2921.

Submitted by: Gilberto Schleiniger phone number: 831-1872

Action: Add major

(Example: add major/minor/concentration, delete major/minor/concentration, revise major/minor/concentration, academic unit name change, request for permanent status, policy change, etc.)

Effective term: 07F

(use format 04F, 05W)

Current degree

(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

Proposed change leads to the degree of: BS

(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

Proposed name: Mathematics Education

Proposed new name for revised or new major / minor / concentration / academic unit (if applicable)

Revising or Deleting:

Undergraduate major / Concentration:

(Example: Applied Music – Instrumental degree BMAS)

Undergraduate minor:

(Example: African Studies, Business Administration, English, Leadership, etc.)

Graduate Program Policy statement change:

(Attach your Graduate Program Policy Statement)

Graduate Program of Study:

(Example: Animal Science: MS Animal Science: PHD Economics: MA Economics: PHD)

Graduate minor / concentration:

List program changes for curriculum revisions:

List new courses required for the new or revised curriculum:
(Be aware that approval of the curriculum is dependent upon these courses successfully passing through the Course Challenge list. If there are no new courses enter "None")

No new courses are required by the new curriculum.

Other affected units:
(List other departments affected by this new or revised curriculum. Attach permission from the affected units. If no other unit is affected, enter "None")

No other units are affected .

Rationale:
(Explain your reasons for creating, revising, or deleting the curriculum or program.)

Mathematically talented students who want to train as math teachers also want the option of pursuing graduate education in mathematics after teaching in high schools for a few years. In addition, high school mathematics teachers with mathematical knowledge beyond that required for the state certification would be an asset in our high schools.

The XMS degree (BA in Math Education) does not have room to fit in more mathematics courses due to the breadth and language requirements of the College of Arts and Sciences for the BA degree; so students do not have room in their schedules to take advanced mathematics courses beyond those required for state certification in Math Education.

We propose a BS in Mathematics Education which will retain all the Math and Education requirements of the XMS degree, and almost all the Math requirements of the BS in Mathematics, while reducing the College group requirements, and eliminating the language requirements.

Program Requirements:
(Show the new or revised curriculum as it should appear in the Course Catalog. If this is a revision, be sure to indicate the changes being made to the present curriculum.)

- **University Requirements**
  ENGL 110 Critical Reading and Writing …… 3
  (minimum grade C-)

  First Year Experience …… 0-4

  Discovery Learning Experience …… 3

  Three credits in an approved course or courses stressing multi-cultural, ethnic, and/or gender-related course content …… 3

- **College Requirements**
  Writing (minimum grade C-) …… 3
  Second writing course taken after completion of 60 credit hours.

Foreign Language …… 0-12
Completion of the intermediate-level course (107 or 112) in a given language. Number of credits needed and initial placement will depend on number of years of high school study of foreign language. Students with four or more years of high school work in a single foreign language may attempt to fulfill this requirement in that language by taking an exemption examination.

- **Breadth Requirements**
  Eighteen credits from Groups A, B and C with a minimum of six credits from each group.

  Croup A …… 6

  Group B …… 6

  Group C …… 6

- **Major Requirements**
  A grade of C- or better is required for major courses and related work.

Mathematics Section

MATH 210 Discrete Mathematics I ……. 3
MATH 242 Analytic Geometry and Calculus B ……. 4
MATH 243 Analytic Geometry and Calculus C ……. 4
MATH 245 An Introduction to Proof ……... 3
MATH 302 Ordinary Differential Equations ……... 3
MATH 308 Historical Developments of Mathematical Concepts and Ideas …… 3
MATH 349 Elementary Linear Algebra ……... 3
MATH 350 Probability Theory and Simulation Methods ……... 3
MATH 450 Mathematical Statistics …… 3
MATH 451 Abstract Algebra I …… 3

One of the following modeling classes …….. 3
MATH 512 Contemporary Applications of Mathematics
MATH 518 Mathematical Models and Applications

MATH 540 College Geometry: A Historical Approach …… 3

One course from the following list …… 3
MATH 315 Discrete Mathematics II
MATH 401 Introduction to Real Analysis
MATH 503 Advanced Calculus for Applications
MATH 508 Introduction to Complex Variables and Applications

Computer and Information Sciences Section

Either CISC 105 (for those with no previous equivalent experience) or CISC 181. 3

Science Section

A two-semester, 8 credit sequence of laboratory science (courses designed for non-majors in a discipline are not appropriate, except for CHEM 103 --104) …. 8

Professional Development Section

MATH 279 Problem Solving Strategies I …… 1
MATH 379 Problem Solving Strategies …….. 1
MATH 380 Approaches to Teaching Mathematics ……..…….. 3
MATH 382 Student Teaching Seminar in Secondary Math …….. 2

EDUC 400 Student Teaching …… 9
EDUC 413 Adolescent Development and Educational Psychology ……. 4
EDUC 414 Teaching Exceptional Adolescents ……. 3
EDUC 419 Diversity in Secondary Education …….. 3
EDUC 420 Reading in the Content Areas …….. 1

Nine additional credits in mathematics or in related disciplines at the 300 level or above ……. 9
Courses not approved for math majors cannot be counted towards these 9 additional credits. Non mathematics courses can be in CISC, ECON, PHYS and STAT from an approved list maintained by the Department of Mathematical Sciences.

Credits to total a minimum of …… 124

ROUTING AND AUTHORIZATION: (Please do not remove supporting documentation.)

Department Chairperson _____Date_____

Dean of College_____Date_____

Chairperson, College Curriculum Committee Date_____

Chairperson, Senate Com. on UG or GR Studies_____Date_____

Chairperson, Senate Coordinating Com._____Date_____

Secretary, Faculty Senate_____Date_____

Date of Senate Resolution_____Date to be Effective_____

Registrar_____Program Code_____Date_____

Vice Provost for Academic Programs & Planning_____Date_____

Provost _____Date_____

Board of Trustee Notification _____Date_____

Revised 11/03/04 /khs