

LSC Use Only No:	LSC Action-Date:	UWUCC USE Only No.	UWUCC Action-Date:	Senate Action Date:
		06-47a	App 4/3/07	App 5/1/07

**Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee**

Contact Person Gary Stoudt	Email Address gsstoudt@iup.edu
Proposing Department/Unit Mathematics	Phone 7-2608

Check all appropriate lines and complete information as requested. Use a separate cover sheet for each course proposal and for each program proposal.

**1. Course Proposals (check all that apply)**

New Course                       Course Prefix Change                       Course Deletion  
 Course Revision                       Course Number and/or Title Change                       Catalog Description Change

<u>Current</u> Course prefix, number and full title	<u>Proposed</u> course prefix, number and full title, if changing
---	---

**2. Additional Course Designations: check if appropriate**

This course is also proposed as a Liberal Studies Course.                       Other: (e.g., Women's Studies, Pan-African)  
 This course is also proposed as an Honors College Course.

**3. Program Proposals**

New Degree Program                       Program Title Change                       Program Revision  
 New Minor Program                       New Track                       Other

Bachelor of Science in Education-Mathematics Education	
<u>Current</u> program name	<u>Proposed</u> program name, if changing

4. Approvals		Date
Department Curriculum Committee Chair(s)	Secondary Math Ed Comm. Gary Stoudt	12-1-06
Department Chair(s)	Gary Stoudt	12-1-06
College Curriculum Committee Chair	[Signature]	03/12/07
College Dean	Deyed Buroket	3/12/07
Director of Liberal Studies *	[Signature]	3-29-07
Director of Honors College *		
Provost *	[Signature]	7/10/07
Additional signatures as appropriate: (include title)	Joseph Demarachi      TELL	2-5-07
	Mary Ann Rajoth      COE-ET	2-5-07
UWUCC Co-Chairs	Gail Sechrist	4-3-07

\* where applicable

Received

MAR 14 2007

Liberal Studies

## 1. Revised Program

### Bachelor of Science in Education—Mathematics Education (\*)

<b>Liberal Studies:</b> As outlined in Liberal Studies section with the following specifications: <b>Mathematics:</b> MATH 125 <b>Liberal Studies Electives:</b> 3cr, no courses with MATH prefix	48
<b>College:</b>	29
<b>Preprofessional Education Sequence:</b>	
COMM 103 Digital Instructional Technology	3cr
EDSP 102 Educational Psychology	3cr
<b>Professional Education Sequence:</b>	
EDEX 301 Education of Students with Disabilities in Inclusive Secondary Settings	2cr
EDSP 477 Assessment of Student Learning: Design and Interpretation of Educational Measures	3cr
EDUC 242 Pre-student Teaching Clinical Experience I	1cr
EDUC 342 Pre-student Teaching Clinical Experience II	1cr
EDUC 441 Student Teaching	12cr
EDUC 442 School Law	1cr
EDUC 456 Teaching Math in the Secondary Schools	3cr
<b>Major:</b>	36
<b>Required Courses:</b>	
MATH 126 Calculus II/Physics, Chemistry, and Mathematics	3cr
MATH 171 Introduction to Linear Algebra	3cr
MATH 216 Probability and Statistics for Natural Sciences	3cr
MATH 225 Calculus III/Physics, Chemistry, and Mathematics	3cr
MATH 271 Introduction to Mathematical Proofs I	3cr
MATH 272 Introduction to Mathematical Proofs II	3cr
MATH 340 Principles of Secondary School Mathematics	3cr
MATH 350 History of Mathematics	3cr
MATH 353 Theory of Numbers	3cr
MATH 355 Foundations of Geometry I	3cr
MATH 430 Seminar in Teaching Secondary School Mathematics	3cr
MATH 460 Technology in Mathematics Instruction	3cr
<b>Other Requirements:</b>	3
<b>Computer Science:</b>	
COSC 110 Problem Solving and Structured Programming	3cr
<b>Free Electives:</b>	4
<b>Total Degree Requirements:</b>	120

## 2. Summary of Changes

### a. Comparison Table

#### Bachelor of Science in Education— Mathematics Education (Current)

**Liberal Studies:** As outlined in 48  
Liberal Studies section  
with the following specifications:  
**Mathematics:** MATH 123  
**Social Science:** PSYC 101  
**Liberal Studies Electives:** 3cr, no courses with  
MATH prefix

**College:** 29  
**Preprofessional Education Sequence:**  
COMM 103 3cr  
EDSP 102 3cr

**Professional Education Sequence:**  
EDEX 301 2cr  
EDSP 477 3cr  
EDUC 242 1cr  
EDUC 342 1cr  
EDUC 441 12cr  
EDUC 442 1cr  
EDUC 456 3cr

**Major:** 35  
**Required Courses:**  
MATH 124 4cr  
MATH 171 3cr  
MATH 216 4cr  
MATH 271 3cr  
MATH 272 3cr  
MATH 340 3cr  
MATH 350 3cr  
MATH 353 3cr  
MATH 355 3cr  
MATH 430 3cr  
MATH 460 3cr

**Other Requirements** 3  
COSC 110 3cr

**Free Electives:** 5

**Total Degree Requirements:** 120

#### Bachelor of Science in Education— Mathematics Education (Revised)

**Liberal Studies:** As outlined in 48  
Liberal Studies section  
with the following specifications:  
**Mathematics:** MATH 125  
**Social Science:** PSYC 101  
**Liberal Studies Electives:** 3cr, no courses with  
MATH prefix

**College:** 29  
**Preprofessional Education Sequence:**  
COMM 103 3cr  
EDSP 102 3cr

**Professional Education Sequence:**  
EDEX 301 2cr  
EDSP 477 3cr  
EDUC 242 1cr  
EDUC 342 1cr  
EDUC 441 12cr  
EDUC 442 1cr  
EDUC 456 3cr

**Major:** 36  
**Required Courses:**  
MATH 126 3cr  
MATH 171 3cr  
MATH 216 3cr  
MATH 225 3cr  
MATH 271 3cr  
MATH 272 3cr  
MATH 340 3cr  
MATH 350 3cr  
MATH 353 3cr  
MATH 355 3cr  
MATH 430 3cr  
MATH 460 3cr

**Other Requirements** 3  
COSC 110 3cr

**Free Electives:** 4

**Total Degree Requirements:** 120

## **2. Summary of Changes**

### ***b. Associated course changes***

The two-course, 8 credit calculus sequence MATH 123 and MATH 124 is being replaced with the three-course, 9 credit calculus sequence MATH 125, 126, 225. This changes the Liberal Studies Mathematics requirement to MATH 125. MATH 126 and 225 are added as requirements and the course MATH 216 is reduced from 4 to 3 credits.

## **3. Rationale**

The Mathematics Department has eliminated the two-course, 8 credit calculus sequence MATH 123 and MATH 124 and replaced it with a three-course, 9 credit calculus sequence MATH 125, 126, 225. The Mathematics Department also revised the MATH 216 course from 4 credits to 3. These changes are what is represented in the program revision.

## **III. Implementation**

1. This change will take effect with the 2007 incoming freshman class. The Mathematics Department will continue to offer MATH 123 and MATH 124 as needed for students currently operating under the old program.
2. Faculty resources are adequate.
3. Other resources are adequate.
4. We do not expect these revisions to change the number of students in the program.

## **IV. Periodic Assessment**

1. The program will be evaluated during the usual National Council for Accreditation of Teacher Education (NCATE) review that all education programs undergo. The NCATE standards used to evaluate are Candidate (Student) Knowledge, Skills, and Dispositions; Assessment System and Unit Evaluation; Field Experiences and Clinical Practice; Diversity; Faculty Qualifications, Performance, and Development; and Governance and Resources.

Also, before graduation and after the student teaching experience, each student participates in an exit interview with the Department's Coordinator of Student Teaching. During this interview the student evaluates the program in terms of what was useful in teaching, and what could be improved.

2. NCATE evaluations occur every five years. The exit interviews occur at the end of every semester.
3. National Council for Accreditation of Teacher Education, Pennsylvania Department of Education.

## **V. Course Proposals**

MATH 125, 126, 225 and 216 proposals have been submitted separately.

## **VI. Letters of Support or Acknowledgement**

None