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| LSC Use Only No: | LSC Action-Date: | UWUCC USE Only No. | UWUCC Action-Date: | Senate Action Date: |
| | | 08-86a. | App- 4/14/09 | App- 4/28/09 |

Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee

| | |
|--|----------------------------------|
| Contact Person Dr. Janet Walker | Email Address jwalker@iup.edu |
| Proposing Department/Unit Mathematics | Phone 724-357-2741 |

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

Current Course prefix, number and full title Proposed 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. Catalog Description Change Program Revision

3. Program Proposals
 New Degree Program Program Title Change Other
 New Minor Program New Track

Current program name Proposed program name, if changing
B.S in Education-Mathematics Education **same**

| 4. Approvals | | Date |
|--|-------------------------------|----------|
| Department Curriculum Committee Chair(s) | <i>Janet Walker</i> | 9-9-08 |
| Department Chair(s) | <i>[Signature]</i> | 9/15/08 |
| College Curriculum Committee Chair | <i>[Signature]</i> | 10/08/08 |
| College Dean | <i>John D. Gick</i> | 10/08/08 |
| Director of Liberal Studies * | | |
| Director of Honors College * | | |
| Provost * | <i>Deirdre Antunovic (um)</i> | 4/2/09 |
| Additional signatures as appropriate: <i>TECC</i> (include title) | <i>Joseph Domaradzki TECC</i> | 3-25-09 |
| | <i>May Ann Kapoth</i> | 3-26-09 |
| UWUCC Co-Chairs | <i>Gail Sedquist</i> | 4/14/09 |

Received
 MAR 25 2009
 Liberal Studies

Part II. Description of Curriculum Change

1. Catalog Description

Bachelor of Science in Education—Mathematics Education

The program leading to the B.S.Ed. with a major in Mathematics Education prepares the student for teaching mathematics in Grades 7-12. Many graduates, however, continue their formal education in mathematics at the graduate level or work in government or industry.

Bachelor of Science in Education—Mathematics Education (*)

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

Mathematics: MATH 125

Social Science: PSYC 101

Liberal Studies Electives: 3cr, no courses with MATH prefix 48

College: 31

Preprofessional Education Sequence:

COMM 103 Digital Instructional Technology 3cr

EDSP 102 Educational Psychology 3cr

Professional Education Sequence:

EDEX 301 Education of Students with Disabilities in Inclusive
Secondary Settings 2cr

EDEX 323 Instruction of English Language Learners with Special Needs 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

Major: 36

Required Courses:

MATH 126 Calculus II for Physics, Chemistry, Mathematics 3cr

MATH 171 Introduction to Linear Algebra 3cr

MATH 216 Probability and Statistics for Natural Sciences 3cr

MATH 225 Calculus III for Physics, Chemistry, 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

Other Requirements: 3

COSC 110 Problem Solving and Structured Programming 3cr

Free Electives: 4

Total Degree Requirements: 122

(*) See requirements leading to teacher certification, titled "3-Step Process for Teacher Education," in the College of Education and Educational Technology section of this catalog.

2. Summary of Changes

The following table compares the old program and the proposed revised program (bold underlined areas denote program changes):

| Old Program: BS in Education/Mathematics Education (*) | New Program: BS in Education/Mathematics Education (*) |
|---|---|
| Liberal Studies: As outlined in Liberal Studies section with the following specifications: 48 Mathematics: MATH 125 Social Science: PSYC 101 Liberal Studies Electives: 3cr, no courses with MATH prefix | Liberal Studies: As outlined in Liberal Studies section with the following specifications: 48 Mathematics: MATH 125 Social Science: PSYC 101 Liberal Studies Electives: 3cr, no courses with MATH prefix |
| College: 29 Preprofessional Education Sequence: COMM 103 Digital Instructional Technology 3cr EDSP 102 Educational Psychology 3cr Professional Education Sequence: 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 | College: Preprofessional Education Sequence: COMM 103 Digital Instructional Technology 3cr EDSP 102 Educational Psychology 3cr Professional Education Sequence: EDEX 301 Education of Students with Disabilities in Inclusive Secondary Settings 2cr <u>EDEX323 Instruction of English Language Learners with Special Needs</u> 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 |
| Major: 36 Required Courses: MATH 126 Calculus II for Physics, Chemistry, Mathematics 3cr MATH 171 Introduction to Linear Algebra 3cr MATH 216 Probability and Statistics for Natural Sciences 3cr MATH 225 Calculus III for Physics, Chemistry, 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 | Major: 36 Required Courses: MATH 126 Calculus II for Physics, Chemistry, Mathematics 3cr MATH 171 Introduction to Linear Algebra 3cr MATH 216 Probability and Statistics for Natural Sciences 3cr MATH 225 Calculus III for Physics, Chemistry, 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 |
| Other Requirements: COSC 110 Problem Solving and Structured Programming 3cr | Other Requirements: COSC 110 Problem Solving and Structured Programming 3cr |
| Free Electives: 4 | Free Electives: 4 |
| Total Degree Requirements: 120 | Total Degree Requirements: 122 |

| | | |
|--|-----------------------------------|--------------|
| | Total Degree Requirements: | <u>122cr</u> |
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(* See requirements leading to teacher certification. (* See requirements leading to teacher certification.

3. Rationale for Change:

The Pennsylvania State Board of Education adopted changes that affect all of Pennsylvania’s teacher and educational specialist certification programs by adding 9 credits or 270 hours or equivalent combination for adaptations and accommodations for diverse students in an inclusive setting and 3 credits or 90 hours or equivalent combination to meet the instructional needs of English language learners. The course EDEX 323 Instruction of English Language Learners with Special Needs (2cr) is being added as a required course in order to add the additional number of hours required by the state. All of the other hours are currently included in other coursework and practicum experiences. This addition results in 122 credits being required for the Mathematics Education Program. PASSHE has approved institutions exceeding the 120-credit minimum up to 123 credits in order to fulfill these new requirements so our program will still be in compliance.

Part III. Implementation

1. How will the proposed revision affect students already in the existing program?

The proposed program revision will not affect the students who are currently in the program and who graduate before December 2012. New students in the Fall 2009 will be required to take this course.

2. Are faculty resources adequate? If you are not requesting or have not been authorized to hire additional faculty, demonstrate how this course will fit into the schedule(s) of current faculty.

Faculty resources are adequate (see letter of support from Department of Special Education and Clinical Services)

3. Are other resources adequate? (Space, equipment, supplies, travel funds)

Yes, other resources are adequate.

4. Do you expect an increase or decrease in the number of students as a result of these revisions? If so, how will the department adjust?

No, there is no change in the number of students expected.

Part IV. Periodic Assessment

1. The Mathematics Education Program undergoes ongoing evaluation with regular visits from both PDE (PA Department of Education) and NCATE (National Council for Accreditation of Teacher Education). Program changes are sometimes required to meet the standards and expectations established by these two agencies. The IUP Mathematics Education Program is nationally accredited by NCATE. The program will undergo reassessment by NCATE in the Fall 2009.

The program is also evaluated in other ways. First, students are interviewed at the end of their program and also fill out a questionnaire regarding the program. Second, teachers in the

public school who accept our student teachers are asked to give feedback to the program. Both of these are completed through the College of Education and Educational Technology.

Criteria for evaluating the program include:

- The degree to which our teacher candidates gain teaching positions in the 7-12 schools after graduation;
 - the degree to which the teacher candidates are prepared for student teaching;
 - the need for course work and/or experiences not currently included in the program;
 - the degree to which the program can be completed within four years.
2. Student teachers complete evaluations of the program at the end of each semester of student teaching. Teacher education programs at IUP are in the process of preparing for accreditation reviews by PDE and NCATE in the Fall 2009.
 3. The evaluating entities are PDE, NCATE, and our department.

Part V. Course Proposals

This is not applicable to this program change.

Part VI. Letters of Support or Acknowledgement

This program change only affects the EDEX 323 course enrollment and thus, may affect faculty assignments in that department. A letter of support from The Education of Exceptional Persons Program and the Department of Special Education is attached.