Prior to presenting at the Graduate Studies Committee (GSC) for review, please provide answers to the following questions, as relevant. Please contact Matthew Boots (mboots1@iu.edu) with any questions.

Title: Proposed Program Cl	<u>nange: Remove minor</u>	<u>requirement for math</u>	education EdD. and
make specific the courses in	each requirement area	a	
GSC presenter: Erik Tiller	-		_
This proposal is for a			
⋈ program change	\square new program	\square policy change	\square new policy

Include responses to each question, as relevant:

- 1. What are you proposing and why? (If proposing a change, then the description and rationale should be relevant to the change(s) only.)
 - In the spring of 2019, the School of Education approved changes in the EdD requirements that give EdD programs the option to eliminate the requirement for the minor in EdD programs of study. Based on these changes, the math education faculty propose to eliminate the requirement for the minor in the mathematics education Online EdD program of study. To replace the 9 credit minor requirement:
 - 3 credits were added to the major area of study, moving the total credits in this area from 27 credits to 30 credits. The 3 credits additional credits will involve taking a second inquiry linkage course so that students now have 6 credits of inquiry linkage course work. We have recommended these courses to be J605, an early inquiry project course, and J705, literature review course.
 - 3 credits were added to the inquiry course requirements, moving the total credits in this
 area from 9 credits to 12 credits. The goal is to ensure that students can get a stronger
 background in both qualitative and quantitative methods.
 - 3 credits were added to the electives, moving the total credits in this area from 6 credits to 9 credits. The goal is for students to identify courses that are connected to each other in the electives that they select.

Along with dissolution of the minor, we are naming courses in the degree. The current degree leaves almost everything up to the advisory committee to approve with little naming of specific course work students will take. Best practice for graduate education is to have courses that have specific names that will appear on the transcript. Historically, students have often taken the N-716 seminar multiple times for their major course work, where this seminar is a rotating topics seminar. We have named each of the rotating topics and will get course numbers approved for them. We are also differentiating these courses from the ones offered in our PhD. program because the EdD. is online, and they are more focused on the use and impact of research in a local context. The courses include the following:

- N717 Professional Seminar in Mathematics Education
- N730 Understanding and Using Assessments in Mathematics Education
- N731 Exploring and Designing Research Based Mathematics Curriculum

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- N732 Understanding Mathematics Learning to Inform Teaching and Classrooms
- N733 Exploring Equity in Mathematics Education
- N734 Practice and Research on Teaching and Learning Mathematics with Digital Technologies
- N735 Mathematics Teacher Education Research and Practice
- N736 Problem Solving in Mathematics Learning and Teaching

We have also worked with the inquiry faculty to have them offer courses that are specific for EdD students. The inquiry faculty have agreed to offer educational practitioner versions of many of their courses, specifically for EdD students. These courses include the following:

- EDUC-Y501 Quantitative Analysis for Educational Practitioners
- EDUC-Y509 Action Research for Educational Practitioners
- EDUC-Y534 Evaluation Methods for Educational Practitioners
- EDUC-Y608 Qualitative Inquiry for Education Practitioners
- EDUC-Y601 Statistical Design of Educational Research for Practitioners
- EDUC-Y602 Multivariate Analysis in Educational Research for Practitioners
- EDUC-Y609 Critical Qualitative Inquiry for Educational Practitioners

These changes are shown below:

Major Area (30 credits)

The major area contains three types of courses.

Type 1: Type 1 courses focus on current research in mathematics education in different topical areas. The topical areas may include equity, curriculum, assessment, learning, teacher education, and technology. Students are required to take 15-18 credits of type 1 courses. Students who take 15 credits will need advisor approval to substitute a type 2 course for a type 1 course.

Type 2: Type 2 courses are a professional seminar that is designed to enhance practice-based skills within mathematics education and support the completion of the portfolio. The course number for these is N717 and 6-9 credits are required.

Type 3: Type 3 courses are linkage courses intended to support students toward completion of the degree. These courses include conducting a literature review in an area of interest, and implementing an early inquiry project that can inform decisions in your context. 6 credits are required.

Your advisor can approve substitutions of course work within the major area to fit with students prior experiences.

Course Number & Title	
MAJOR AREA (30 credits, 10 courses)	
Type 1: Research in Mathematics Education Courses (15-18 credits, 5-6 courses)	
EDUC-N730 Understanding and Using Assessments in Mathematics Education	3
EDUC-N731 Exploring and Designing Research Based Curriculum	3
EDUC-N732 Understanding Mathematics to Inform Teaching and Classrooms	3
EDUC-N733 Exploring Equity in Mathematics Education	3

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EDUC-N734 Practice and Research on Teaching and Learning Mathematics with Digital	3
Technologies	
EDUC-N735 Mathematics Teacher Education Research and Practice	
EDUC-N736 Problem Solving in Mathematics Learning and Teaching	3
Type 2: Professional Seminar Course (6-9 credits, 2-3 courses)	
EDUC-N717 Professional Seminar in Mathematics Education	3
EDUC-N717 Professional Seminar in Mathematics Education	3
EDUC-N717 Professional Seminar in Mathematics Education	3
Type 3: Linkage Courses (6 credits, 2 courses)	
EDUC-J705 Literature Review	3
EDUC-J605 Independent Research Experience in Curriculum & Instruction	3

INQUIRY REQUIREMENTS (12 credits, 4 courses)

A minimum of 12 credits of inquiry courses are taken. Students will take one overview of educational inquiry course, one introductory quantitative inquiry course, one introductory qualitative inquiry or evaluation course, and one advanced quantitative or qualitative inquiry course.

Choose one overview course on educational research (3 credits):	
EDUC-Y520 Strategies for Educational Inquiry	
Take an introductory course in quantitative inquiry (3 credits):	
EDUC-Y501 Quantitative Analysis for Educational Practitioners	3

Choose one introductory course in qualitative inquiry and evaluation (3 credits):	
EDUC-Y509 Action Research for Educational Practitioners	
EDUC-Y534 Evaluation Methods for Educational Practitioners	3
EDUC-Y608 Qualitative Inquiry for Educational Practitioners	3
Choose one advanced course in either qualitative or quantitative inquiry to be chosen in	
consultation with your advisor. Examples below, but additional courses may be relevant (3	
credits):	
EDUC-Y601 Statistical Design of Educational Research for Practitioners	3
EDUC-Y602 Multivariate Analysis in Educational Research for Practitioners	3
EDUC-Y609 Critical Qualitative Inquiry for Educational Practitioners	

Notes on Inquiry Courses:

Students can substitute Y521 for Y520.

Other approved inquiry courses are listed here and alternatives to the above can be negotiated with your advisor: https://education.indiana.edu/students/graduates/approved-core-inquiry-courses.html

ELECTIVE REQUIREMENTS (9 credits, 3 courses)

A minimum of 9 elective credits must be taken outside the major. The faculty recommends focusing electives in an area of interest so that students can develop their knowledge in a key area that will support their professional growth. Example areas of focus include coaching and professional leadership, adult education, student learning and assessment, teacher education, and instructional technology, along with other content areas within education like science education, art education, or literacy education.

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Dissertation Requirements (9 credits)

All students take 3 credits of dissertation proposal (J795 or J799) and 6 credits of dissertation credits. These courses are not 'classes' in the traditional sense. A student enrolls and a grade is given upon completion of the task.

EDUC-J795 Dissertation Proposal Preparation	3
EDUC-J799 Dissertation-Curriculum/Instruction	6

2. How will this impact enrollment?

These changes are intended to improve enrollment and retention because they make much more specific the requirements of the degree.

- 3. How will this impact students' time to degree?
 - Without the minor, there is more flexibility in the course work that students take outside the major area, which will allow students to more easily complete the degree.
- 4. How will this impact specific student populations and/or DEI issues? Clearly identifying courses in a degree is an important factor in retaining students, generally, and specifically, students who may be less familiar with the academy (e.g., those who have historically not had opportunities in the academy).
- 5. How will this impact School of Education resources, including faculty loads? The specific proposed changes will not affect faculty load. However, this Ed.D. was recently approved to be offered online, and this will increase opportunities for faculty to teach graduate courses. As such, we anticipate being able to support more doctoral students in the face to face doctoral program. We consider this shift to allow us to maintain appropriate numbers for our face to face doctoral program.
- 6. How will this be effectively sustained over time? See response to 5.
- 7. What was the departmental vote tally for this proposal? (e.g., "12 in favor, 2 opposed, 3 abstained")
 31 in favor, 0 opposed, 0 abstained