#### Transmittal Memo and Proposal Summary

Establish Course: MCED 4/50045: Teaching Mathematics in the Intermediate Years (grades 4-5)

#### 1. Need, audience, and precursors for the course:

This three-credit hour course was created to fulfill the mathematics methods course component for the requirements for early childhood majors and teachers who have an early childhood teacher education license to receive an endorsement to teach in fourth and fifth grade. This endorsement was created by the state to be added onto the early childhood license so these teachers could teach at 4/5 grade level in Ohio. No other mathematics education course currently on the books would serve this need. Students who complete the Kent State University program in Early Childhood Education as well as former graduates from our program in Early Childhood Education and graduates from other early childhood education programs in Ohio will be the targeted audience. Currently, a majority of our students completing the program here have indicated an interest in seeking this endorsement. Former graduates and graduates from other programs have also expressed interest in completing this endorsement.

#### 2. Effect on current offerings:

This course will not decrease the need for current offerings in other mathematics education courses. It has been created to fulfill a specific endorsement requirement.

#### 3. Effect on staffing:

Offering this course will mean an additional class that needs to be staffed by mathematics education faculty but since this course will most likely be delivered to cohorts of students during the summer, staffing will only occur if enrollment supports faculty salary; further, if this course is offered during the academic year, it does not necessarily mean additional faculty would be required as careful attention is being given to strategic scheduling, i.e, courses may be offered less frequently, meaning that a wider variety of courses can be offered at no additional cost to the department."

However, not offering it would mean that our students enrolled in the early childhood education program would not have the opportunity, on completing their program, to obtain this 4/5 grade endorsement through Kent State University. As other universities in the local area are offering this endorsement, this could mean that, not only would these students transfer to another institution to complete this endorsement but that prospective early childhood education majors may choose to complete their degrees at another institution where they could continue with this endorsement.

4. Effect on other units or programs and the curricular bodies that have reviewed and approved this action:

This course has been developed as a cross listed undergraduate/graduate course for two reasons: students completing their degree in early childhood education could elect to take this at either the undergraduate or graduate level; the advantage of the graduate level is that several concentration areas in the C&I Masters program have indicated that this would count towards their Masters in C&I, thus it could potentially increase the enrollment in our masters program. Offering it at the graduate level is intended to also attract teachers in the field who have an early childhood license and seek the 4/5 grade endorsement; again, this has the potential to increase enrollment in our C&I Masters program.

The proposed effective date for the new course is Spring 2010.

This proposal was approved by TLCS Curriculum Committee on March 9, 2009.

# KENT STATE UNIVERSITY CERTIFICATION OF CURRICULUM PROPOSAL

•		Preparation Date 9	-Feb-09	Curriculum Bulletin				
		Effective Date -F	all 2009	Approved by EPC				
			os zviva					
Department	TLCS		pools H 4554.					
College	EH - Education, He	alth and Human S	ervices					
Proposal	Establish Course							
Course Subject	MCED Course	Number 40045						
Course Title	Teaching Mathema	atics in the Interm	ediate Yea	ars (grades 4-5)				
Minimum Credits	03 Maximu	m Credits 03						
	⊠ Subject	⊠ Cross-L	isted / Slas	sh				
	⊠ Number	⊠ Grade F	Rule					
	⊠ Title	☐ Credit b	y Exam					
Checked items	hecked items		□ Course Content					
are new 🖂 Credit Hours			☐ Liberal Education Requirements (LER)					
or revised	☐ Prerequisites	☐ Writing-	,	WIC)				
	☐ Description	☐ Diversit	У					
	☐ Schedule Type	☐ Other						
enrollment and state Mathematics method teachers who have	fing considerations; nods course needed	eed, audience, pre to fulfill the requi d teacher education	requisites; rements fo	pachment and duplication issues; teacher education licensure): or early childhood majors and to receive an endorsement to				
Units consulted (ot ECED, MCED, TLC	her departments, prog S	grams or campuses	affected b	y this proposal):				
	7	REQUIRED END	ORSEMEN	TS				
	Jertmen			3,16,09				
Department Chair/	School Director / Ca	mpus Dean						
College Dean								
Executive Dean of Regional Campuses / Dean of Graduate Studies								
				1 1				
Senior Vice Presid	irs and Provost							

## **BASIC DATA SHEET**

Complete all fields. Data entered below should reflect new/revised information.

i i							
Preparation Date	9-Feb-09	Requested Effecti	ve Term	Fall-200	8 Sprin	a 2010	
Course Subject	MCED	Course Number	40045		, ,	J	
Course Title	Teaching Mathematics in the Intermediate Years (grades 4-5)						
Title Abbreviation	Teaching Math Intermediate  NOTE: Maximum 30 spaces, with no punctuation or special characters (exception: forward slash "/" is allowed with no spaces before or after the slash)						
Slash Course	<b>4</b> / <b>5</b> / 4/5, 4/5/7 or 6/8	Cross-listed with				anner code d by Curriculum Services.	
Minimum Credit	<b>03</b> ☐ to ☐ or	Maximum Credit	<b>03</b> (e.g., 3	3 to 3 cred	its, 1 to 12 cr	edits, 2 or 4 credits)	
Contact Hours Per Week	<ul><li>☑ Lecture</li><li>☐ Laboratory</li><li>☐ Other</li><li>NOTE: Contact hour</li></ul>	Minimum Hours Minimum Hours Minimum Hours s should be per week.		□ to □	or Maximu or Maxim or Maxim		
Repeat Status	RP - Course may be repeated If repeats, course limit OR maximum hours						
Course Level	UG - Undergraduate						
Grade Rule	C - Letter or In Progress (IP)						
Schedule Type(s)	LEC - Lecture						
Course Attribute(s)	s) none						
Credit By Exam N - Credit by Exam Not Approved							
COMPLETE ONLY WHA	T IS APPLICABLE T	O THE COURSE	-g		·		
Prerequisite Course(s) NOTE: List minimum-grade requirement for course prerequisites if other than "D."  Completed by Curriculum set OBR Program Code OBR Subsidy Code OBR Course Level					ram Code idy Code		
Corequisite(s)	OBR Course Level						
Registration is by spenore: Checking "yes" m			epartment to				
Restrict Registration (e.g., VCD majors, East L	iverpool Campus, jun	ior level and above, gra	aduate stand	ding, BA-C	HEM progra	m)	
Catalog Description  (do not include prerequis	mathematics in their use	owldege of the the the contemporar				ods used to teach 5 and develop skill in	
(do not nicitate preseduis	ico)	ggyggggggggggggggggggggggggggggggggggg		·		and the desired and the second of the second	
Complete the following of Previous Title	nly if applicable:						
Previous Subject		Previous Numbe	r			·	
Term Start	Term End	End NOTE: To be completed by Curriculum Services.					

Content Outline (include contact hours for each section)

Contact Hours	Outline
3.00	ANALYZE AND UNDERSTAND SCIENTIFIC, RESEARCH-BASED THEORIES FOR TEACHING AND LEARNING OF MATHEMATICS WITH MIDDLE GRADES STUDENTS
3.00	PROBLEM SOLVING AND LOGICAL REASONING
3.00	MEANING, USE OF, AND COMPUTATION WITH WHOLE NUMBER
3.00	MEANING, USE OF, AND COMPUTATION WITH FRACTIONS AND DECIMALS
3.00	MEANING, USE OF, AND COMPUTATION WITH PERCENT, RATIO, AND PROPORTION
3.00	NUMBER SYSTEMS AND NUMBER THEORY
3.00	MENTAL COMPUTATION, ESTIMATION, AND NUMBER SENSE
3.00	PATTERNS, RELATIONS, AND FUNCTIONS
3.00	ALGEBRAIC CONCEPTS
3.00	GEOMETRY AND SPATIAL SENSE
3.00	PROBABILITY
3.00	DATA ANALYSIS/STATISTICS
3.00	ASSESSMENT IN THE MATHEMATICS CLASSROOM
3.00	EQUITY IN THE MATHEMATICS CLASSROOM
3.00	VARIOUS FORMS OF TECHNOLOGY USED IN MATHEMATICS

45 Total Contact Hours

Textbook(s) Used in this Course

Van de Walle, J. & Lovin, L. (2006) Teaching student centered mathematics: Grades 3-5. Boston, Pearson.

National Council of Teachers of Mathematics, NCTM. (2000). Principles and Standards for School Mathematics. Reston, VA.

Ohio Academic Content Standards: Mathematics.

Writing Expectations

Instructor(s) Expected To Teach

T. Koontz, G. Davis, M. Mikusa, A. Reynolds, J. Caniglia

3,16,09

Instructor(s) Contributing to Content

T. Koontz, G. Davis, A. Reynolds

REQUIRED ENDORSEMENT

Department Chair / School Director / Campus Dean

### Department of Teaching, Leadership and Curriculum Studies Curriculum Committee 2008-2009

Members: Andrew Gilbert (Chair), Lisa Donnelly, Janice Hutchinson, Martha Lash, Gen Davis
<b>Date:</b> 3/9/09
Members present (on-line decision): Andrew Gilbert (Chair), Genevieve Davis, Lisa Donnelly, Janice Hutchinson, Martha Lash
New Business: Teaching Mathematics in the Intermediate Years (grades 4-5) MCED 40045
Proposal submitted by: A. Reynolds
Comments: The proposal passed unanimously. The committee feels that the course (as part of the future 4/5 generalist endorsement) will provide a needed enrollment boost and more importantly provide an important service for local schools and teachers.
Disposition:
X Approved Not Approved Will review re-submitted proposal
Signature: Date: 3/9/07 Andrew Gilbert, Ph.D.