# M.Ed. in Mathematics Education Academic Assessment Plan 2012-13

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University of Florida

Institutional Assessment

Continuous Quality Enhancement

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#### Academic Assessment Plan for M.Ed. in Mathematics Education

College of Education

#### A. Mission

In support of both the institutional and departmental mission, the aim of the Mathematics Education program is "to develop the knowledge, skills, and dispositions of future and current mathematics teachers from diverse backgrounds to address the societal and educational demands of our youth and communities," and to, "...prepare educators who are capable of creating and maintaining supportive and productive classrooms for diverse student populations, working collaboratively with school personnel, families, and members of the community to develop innovative and alternative ways of educating all children, including those who present unique instructional and behavioral challenges."

#### **B. Student Learning Outcomes and Assessment Measures**

SLO Type	Student Learning Outcome	Assessment Method	Degree Delivery	
Knowledge	The student will identify, describe, and explain research on teaching and learning of mathematics.	Students will achieve a passing score on the Professional Education Test and Mathematics Subject Area Test of the Florida Teacher Certification Exam administered and scored by the Florida Department of Education.	Campus	
Skills	The student will create, select and implement: (1) specific learning goals, (2) appropriate teaching methods and instructional materials, and (3) evaluation strategies aligned with goals, using knowledge of subject matter, learners and classroom management.	Students will meet expectations on the summative Student Teaching Performance Evaluation instrument completed by the student's Field Based Supervisor and University Based Supervisor for the culminating field experience in Mathematics Education.	Campus	
Professional Behavior	The student will collaborate with other professionals, such as peers and mentor teachers, to reflect upon his or her mathematics teaching. Students will communicate high expectations for all PK-12 students.	Students will meet expectations on Part 2: Teacher Professionalism on the Student Teaching Performance Evaluation instrument completed by the student's Field Based Supervisor and University Based Supervisor during the culminating field experience.	Campus	

#### C. Research

The M.Ed. in Mathematics Education is a program that leads to teacher certification. Although the program utilizes research-based approaches and methods and encourages its graduates to do the same, this program does not prepare students to engage in research beyond action research in their own classroom to inform their own practice.

#### **D.** Assessment Timeline

Program: M.Ed. in Mathematics Education College: Education

Assessment	Assessment 1
SLOs	
Knowledge	
#1	Florida Teacher Certification Exams (Prior to Program Completion)
Skills	
#2	Student Teaching Evaluation Form (Prior to Program Completion)
<b>Professional Behavior</b>	(1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-
#3	Student Teaching Evaluation Form (Prior to Program Completion)

#### **E.** Assessment Cycle

Program: M.A.E. in Mathematics Education College: Education

Analysis and Interpretation: Completed by September 30<sup>th</sup> as part of the

Continuous Improvement Plan

Program Modifications: Completed by September 30<sup>th</sup> as part of the

Continuous Improvement Plan

Dissemination: Changes to the program are disseminated by the

end of the spring semester for the following fall

semester

Year	10-11	11-12	12-13	13-14	14-15	15-16
SLOs						
<b>Content Knowledge</b>						
Thesis/Project-in-lieu of Thesis	X	X	X	X	X	X
Skills						
Thesis/Project-in-lieu of Thesis	X	X	X	X	X	X
<b>Professional Behavior</b>						
Thesis/Project-in-lieu of Thesis	X	X	X	X	X	X

#### F. Measurement Tools

Students are expected to obtain passing scores on three Florida Teacher Certification Exams prior to program completion. The required exams are as follows:

- General Knowledge (K-12)
- Mathematics (6-12)
- Professional Education

The Student Teaching Evaluation Form (Appendix 1) documents candidates' performance in one of four categories (unsatisfactory, developing, accomplished, and exceptional) for each Florida Educator Accomplished Practices (Knowledge and Skills) (Part 1) and for Professional Behavior and Indicators (Part 2). The rating criteria for all items on the instrument are as follows:

Unsatisfactory – The candidate demonstrates little knowledge of this practice. The candidate is not yet prepared to demonstrate this skill in a practical setting.

Developing – The candidate is developing this practice. The candidate requires coaching and supervision to implement this skill in a practical setting.

Accomplished – The candidate usually demonstrates this practice. The candidate is independent in routine situations with minimal to no supervision required.

Exceptional – The candidate consistently demonstrates this practice in a practical setting. The candidate can modify and implement this skill in alternative situations with minimal to no supervision required.

### **G.** Assessment Oversight

Name	Department Affiliation	Email Address	Phone Number
Tim Jacobbe	School of Teaching and Learning	jacobbe@coe.ufl.edu	273-4232
Elayne Colón	Dean's Area	epcolon@coe.ufl.edu	273-4132
Tom Dana	Dean's Area	tdana@coe.ufl.edu	273-4134

# Appendix 1: Student Teaching Evaluation Form

Unsatisfactory Developing Accomplished Exceptional (1) (2) (3) (4)					UF FLORID	Ä				
	1	2	3	4	College of Educa	ation Stud	ent Teaching	<u>Evaluation</u>		
FEAP 6: Professional Responsibility & Conduct										
6a. The effective educator adheres to the Code of Ethics and the Principles of Professional Conduct of the Education Profession of Florida			0	0	Candidate Name (Last, I Submitted by (Check O Name of Evaluator:	UFID:  UF Supervisor  Oracle  Oracle  Oracle	Other:			
Part 2: UF Teacher Professionalism Indicators	1	2	3	4	demonstration of competence	on the Florida Educator Accom	evaluation of a teacher candidate's plished Practices as part of the culn well as an overall domain rating, wh	ninating field experience.		
As a professional, the effective educator:			0	0	Unsatisfactory	Developing	Accomplished	Exceptional		
A TAXABLE COLOR DIVIDENCE CON COLOR SPINISHED COLOR					Offsatisfactory					
2.1 Reflects on the extent to which learning goals were met and how instruction can be changed to facilitate learning	$\bigcirc$	$\bigcirc$	0	$\bigcirc$		2	3	4		
2.2 Demonstrates a sense of efficacy	0	$\circ$	0	0	The candidate	The candidate is	The candidate usually	The candidate		
2.3 Builds professional relationships with colleagues to share teaching insights and to coordinate learning activities for students	0	0	0	0	demonstrates little developing this demonstrates knowledge of this practice. The practice. The		demonstrates this practice. The	consistently demonstrates this practice in a practical		
2.4 Demonstrates initiative and self-reliance	0	0	$\bigcirc$	$\bigcirc$	practice. The candidate is not yet	candidate requires coaching and	candidate is independent in	setting. The candidat		
2.5 Demonstrates enthusiasm for teaching	0	$\bigcirc$	0	$\bigcirc$	prepared to demonstrate this skill	supervision to implement this	routine situations with minimal to no	implement this skill in		
2.6 Demonstrates responsiveness to supervision (ability to accept constructive criticism and incorporate suggestions into teaching performance)	0	$\circ$	$\bigcirc$	$\circ$	in a practical setting.	skill in the practical setting.	supervision required.	alternative situations d. with minimal to no supervision required.		
2.7 Demonstrates responsibility for maintaining accurate student records and other important information	0	0	$\circ$	0			0.1 16 2	(==+5)		
2.8 Is punctual	$\bigcirc$	$\bigcirc$	$\bigcirc$	0			plished Practices			
<ol> <li>Presents a professional appearance in dress, grooming, attitude, and demeanor</li> </ol>	0	0	0	0		nal Design and Plant m human development ar consistently:		1 2 3 4		
OVERALL DOMAIN RATING:	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	1a. Aligns instruction with appropriate level of rig	state-adopted standards	at the	0000		
Comments:					1b. Sequences lessons and required prior knowled		rence and	0000		
					1c. Designs instruction for	r students to achieve mast	ery	0000		
					1d. Selects appropriate fo	rmative assessments to mo	onitor learning	0000		
					1e. Uses diagnostic stude	nt data to plan lessons		0000		
					1f. Develops learning expedemonstrate a variety	eriences that require stude of applicable skills and cor		0000		
Signature: Date:	1	1			OVERALL FEAP 1 RATIN	NG:		0000		
Please return completed form to:										
UNIVERSITY OF FLORIDA, COLLEGE OF EDUCATION, STUDENT SERVICES, G-41 PO BOX 117042, GAINESVILLE, FL 32611-7042	6 NORM	1AN HA	LL.							
UE Student Te	achina I	Evalua	tion	4			UF Student	Teaching Evaluation 1		

Rating: Unsatisfactory Developing Accomplished Exceptional  ① ③ ④				Rating: Unsatisfactory Developing Accomplished Exceptional  2 3			
	1	2	3 4		1	2	3 4
<b>FEAP 2:</b> The Learning Environment  To maintain a student-centered learning environment that is safe, organized, equitable, flexible, inclusive, and collaborative, the effective educator consistently:				FEAP 4: Assessment The effective educator:			
2a. Organizes, allocates, and manages the resources of time, space, and attention		0 -	$\circ \circ$	4a. Analyzes and applies data from multiple assessments to diagnose			
2b. Manages individual and class behaviors through a well-planned management system	$\bigcirc$	$\bigcirc$	$\cap \cap$	students' learning needs and inform instruction based on those needs	$\underline{}$	$\underline{}$	$\underline{}$
2c. Conveys high expectations to all students	$\tilde{}$	$\widetilde{\cap}$	$\tilde{\cap}$	4b. Designs & aligns formative & summative assessments that match learning objectives and lead to mastery	$\bigcirc$	$\bigcirc$	$\bigcirc$
2d. Respects students' cultural, linguistic and family background	Ŏ	$\tilde{\bigcirc}$	ŏŏ	4c. Uses a variety of assessment tools to monitor student progress,			
2e. Models clear, acceptable oral and written communication skill	Ŏ	Ŏ	ŏŏ	achievement and learning gains		$\bigcirc$	$\circ$
2f. Maintains a climate of openness, inquiry, fairness and support	Ŏ	$\check{\bigcirc}$	<u>ň</u> ň	4d. Modifies assessments and testing conditions to accommodate learning styles and varying levels of knowledge	$\bigcirc$		$\circ$
2g. Integrates current information & communication technologies	Ŏ	Ŏ	ŎŎ	4e. Shares the importance and outcomes of student assessment data			00
2h. Adapts the learning environment to accommodate the differing			$\overline{\cap}$	with the student and the student's parent / caregiver(s)			$\circ$
needs and diversity of students  2i. Utilizes current & emerging assistive technologies that enable		0	$\circ \circ$	4f. Applies technology to organize and integrate assessment information			00
students to participate in high-quality communication interactions	_	$\sim$		OVERALL FEAP 4 RATING:			$\overline{\bigcirc}$
& achieve their educational goals		<u> </u>	$\overline{\bigcirc}$				
		0	<b>a a</b>			0	
	0	2	3 4		(1)	2	3 4
FEAP 3: Instructional Delivery and Facilitation		2)	3 4	FEAP 5: Continuous Professional Development		(2)	3 4
FEAP 3: Instructional Delivery and Facilitation  The effective educator consistently utilizes a deep and comprehensive knowledge of				FEAP 5: Continuous Professional Development The effective educator:	0	(2)	3 4
The effective educator consistently utilizes a deep and comprehensive knowledge of 3a. Deliver engaging and challenging lessons				The effective educator:  5a. Designs purposeful professional goals to strengthen the effectiveness	0	(2)	3 4
The effective educator consistently utilizes a deep and comprehensive knowledge of  3a. Deliver engaging and challenging lessons  3b. Deepen & enrich students' understanding through content area literacy				The effective educator:  5a. Designs purposeful professional goals to strengthen the effectiveness of instruction based on students' needs	0	(2)	3 4
The effective educator consistently utilizes a deep and comprehensive knowledge of 3a. Deliver engaging and challenging lessons				The effective educator:  5a. Designs purposeful professional goals to strengthen the effectiveness	0	(2) ()	<ul><li>3 4</li><li>O O</li></ul>
The effective educator consistently utilizes a deep and comprehensive knowledge of  3a. Deliver engaging and challenging lessons  3b. Deepen & enrich students' understanding through content area literacy strategies, verbalization of thought, & application of the subject matter				The effective educator:  5a. Designs purposeful professional goals to strengthen the effectiveness of instruction based on students' needs  5b. Examines and uses data-informed research to improve instruction and student achievement  5c. Uses a variety of data independently & in collaboration w/ colleagues,	0	(2) ()	<ul><li>3 4</li><li>O O</li><li>O O</li></ul>
The effective educator consistently utilizes a deep and comprehensive knowledge of  3a. Deliver engaging and challenging lessons  3b. Deepen & enrich students' understanding through content area literacy strategies, verbalization of thought, & application of the subject matter  3c. Identify gaps in students' subject matter knowledge	the subje			The effective educator:  5a. Designs purposeful professional goals to strengthen the effectiveness of instruction based on students' needs  5b. Examines and uses data-informed research to improve instruction and student achievement  5c. Uses a variety of data independently & in collaboration w/ colleagues, to evaluate learning outcomes adjust planning & continuously improve	0	(2) ()	0 0
The effective educator consistently utilizes a deep and comprehensive knowledge of  3a. Deliver engaging and challenging lessons  3b. Deepen & enrich students' understanding through content area literacy strategies, verbalization of thought, & application of the subject matter  3c. Identify gaps in students' subject matter knowledge  3d. Modify instruction to respond to preconceptions or misconceptions	the subje			The effective educator:  5a. Designs purposeful professional goals to strengthen the effectiveness of instruction based on students' needs  5b. Examines and uses data-informed research to improve instruction and student achievement  5c. Uses a variety of data independently & in collaboration w/ colleagues,	0 0	0	000000000000000000000000000000000000000
The effective educator consistently utilizes a deep and comprehensive knowledge of  3a. Deliver engaging and challenging lessons  3b. Deepen & enrich students' understanding through content area literacy strategies, verbalization of thought, & application of the subject matter  3c. Identify gaps in students' subject matter knowledge  3d. Modify instruction to respond to preconceptions or misconceptions  3e. Relate & integrate the subject matter with other disciplines and life experience  3f. Employ higher-order questioning techniques  3g. Apply varied instructional strategies and resources, including appropriate technology.	the subjection of the subjecti			The effective educator:  5a. Designs purposeful professional goals to strengthen the effectiveness of instruction based on students' needs  5b. Examines and uses data-informed research to improve instruction and student achievement  5c. Uses a variety of data independently & in collaboration w/ colleagues, to evaluate learning outcomes adjust planning & continuously improve effectiveness of the lessons  5d. Collaborates with the home, school and larger communities to foster communication and to support student learning & continuous improvement	0	0	000000000000000000000000000000000000000
The effective educator consistently utilizes a deep and comprehensive knowledge of 3a. Deliver engaging and challenging lessons 3b. Deepen & enrich students' understanding through content area literacy strategies, verbalization of thought, & application of the subject matter 3c. Identify gaps in students' subject matter knowledge 3d. Modify instruction to respond to preconceptions or misconceptions 3e. Relate & integrate the subject matter with other disciplines and life experience 3f. Employ higher-order questioning techniques 3g. Apply varied instructional strategies and resources, including appropriate technolo to provide comprehensible instruction, and to teach for student understanding	the subjection of the subjecti			The effective educator:  5a. Designs purposeful professional goals to strengthen the effectiveness of instruction based on students' needs  5b. Examines and uses data-informed research to improve instruction and student achievement  5c. Uses a variety of data independently & in collaboration w/ colleagues, to evaluate learning outcomes adjust planning & continuously improve effectiveness of the lessons  5d. Collaborates with the home, school and larger communities to foster communication and to support student learning & continuous improvement  5e. Engages in targeted professional growth opportunities & reflective	0	0	000000000000000000000000000000000000000
The effective educator consistently utilizes a deep and comprehensive knowledge of  3a. Deliver engaging and challenging lessons  3b. Deepen & enrich students' understanding through content area literacy strategies, verbalization of thought, & application of the subject matter  3c. Identify gaps in students' subject matter knowledge  3d. Modify instruction to respond to preconceptions or misconceptions  3e. Relate & integrate the subject matter with other disciplines and life experience  3f. Employ higher-order questioning techniques  3g. Apply varied instructional strategies and resources, including appropriate technology.	the subjection of the subjecti			The effective educator:  5a. Designs purposeful professional goals to strengthen the effectiveness of instruction based on students' needs  5b. Examines and uses data-informed research to improve instruction and student achievement  5c. Uses a variety of data independently & in collaboration w/ colleagues, to evaluate learning outcomes adjust planning & continuously improve effectiveness of the lessons  5d. Collaborates with the home, school and larger communities to foster communication and to support student learning & continuous improvement	0	0	<ul><li>3 (4)</li><li>O (0)</li><li>O (0)</li></ul>
The effective educator consistently utilizes a deep and comprehensive knowledge of 3a. Deliver engaging and challenging lessons  3b. Deepen & enrich students' understanding through content area literacy strategies, verbalization of thought, & application of the subject matter  3c. Identify gaps in students' subject matter knowledge  3d. Modify instruction to respond to preconceptions or misconceptions  3e. Relate & integrate the subject matter with other disciplines and life experience  3f. Employ higher-order questioning techniques  3g. Apply varied instructional strategies and resources, including appropriate technoloto provide comprehensible instruction, and to teach for student understanding  3h. Differentiate instruction based on an assessment of student	the subjection of the subjecti			The effective educator:  5a. Designs purposeful professional goals to strengthen the effectiveness of instruction based on students' needs  5b. Examines and uses data-informed research to improve instruction and student achievement  5c. Uses a variety of data independently & in collaboration w/ colleagues, to evaluate learning outcomes adjust planning & continuously improve effectiveness of the lessons  5d. Collaborates with the home, school and larger communities to foster communication and to support student learning & continuous improvement  5e. Engages in targeted professional growth opportunities & reflective practices, both independently & in collaboration w/ colleagues  5f. Implements knowledge and skills learned in professional development in the teaching and learning process	0		
The effective educator consistently utilizes a deep and comprehensive knowledge of 3a. Deliver engaging and challenging lessons  3b. Deepen & enrich students' understanding through content area literacy strategies, verbalization of thought, & application of the subject matter  3c. Identify gaps in students' subject matter knowledge  3d. Modify instruction to respond to preconceptions or misconceptions  3e. Relate & integrate the subject matter with other disciplines and life experience  3f. Employ higher-order questioning techniques  3g. Apply varied instructional strategies and resources, including appropriate technolo to provide comprehensible instruction, and to teach for student understanding  3h. Differentiate instruction based on an assessment of student learning needs and recognition of individual differences in student  3i. Support, encourage, and provide immediate and specific feedback	the subjection of the subjecti			The effective educator:  5a. Designs purposeful professional goals to strengthen the effectiveness of instruction based on students' needs  5b. Examines and uses data-informed research to improve instruction and student achievement  5c. Uses a variety of data independently & in collaboration w/ colleagues, to evaluate learning outcomes adjust planning & continuously improve effectiveness of the lessons  5d. Collaborates with the home, school and larger communities to foster communication and to support student learning & continuous improvement  5e. Engages in targeted professional growth opportunities & reflective practices, both independently & in collaboration w/ colleagues  5f. Implements knowledge and skills learned in professional development	0		

Figure 1. University of Florida Graduate/Professional Program Assessment Plan Review Rubric Related resources are found at <a href="http://www.aa.assessment.edu">http://www.aa.assessment.edu</a>

Program: Year:

Component	omponent Criterion				Comments
		Met	Partially Met	Not Met	
	Mission statement is articulated clearly.				
	The program mission clearly supports the				
Mission Statement	College and University missions, and includes				
	specific statements describing how it				
	supports these missions.				
Student Learning Outcomes	SLOs are stated clearly.				
(SLOs) and Assessment	SLOs focus on demonstration of student				
Measures	learning.				
Measures	SLOs are measurable.				
	Measurements are appropriate for the SLO.				
	Research expectations for the program are				
Research	clear, concise, and appropriate for the				
	discipline.				
	The Assessment Map indicates the times in				
Assessment Map	the program where the SLOs are assessed and				
Assessment Map	measured.				
	The Assessment Map identifies the				
	assessments used for each SLO.				
	The assessment cycle is clear.	ļ			
	All student learning outcomes are measured.				
	Data is collected at least once in the cycle.				
	The cycle includes a date or time period for				
Assessment Cycle	data analysis and interpretation.				
	The cycle includes a date for planning				
	improvement actions based on the data				
	analysis.				
	The cycle includes a date for dissemination of				
	results to the appropriate stakeholders.				

## University of Florida Graduate/Professional Program Assessment Plan Review Rubric, continued

Component	Criterion		Rating		Comments
		Met	Partially Met	Not Met	
Measurement Tools	Measurement tools are described clearly and concisely.				
	Measurements are appropriate for the SLOs.				
	Methods and procedures reflect an appropriate balance of direct and indirect methods.				
	The report presents examples of at least one measurement tool.				
Assessment Oversight	Appropriate personnel (coordinator, committee, etc.) charged with assessment responsibilities are identified				