M.Ed. in Science Education Academic Assessment Plan 2012-2013

College of Education
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Office of the Provost

University of Florida

Institutional Assessment

Continuous Quality Enhancement

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Academic Assessment Plan for M.Ed. in Science Education

College of Education

A. Mission

The mission of the M.Ed. in Science Education program mirrors that of the School of Teaching and Learning, i.e., "to create and promote new knowledge and understandings about teaching and learning for the purpose of a just, compassionate, and informed citizenry." Using innovative, evidence-based practice and theory, the M.Ed. in science education program seeks to prepare exemplary middle and secondary level science teachers who are able to survive and thrive in diverse contexts working with diverse learners.

This program clearly aligns with both the broader College of Education and University of Florida institutional missions in several ways. First, it integrates and applies the latest research on best practices in science teaching into the degree program and faculty working with the degree program regularly engage in research/scholarship and service activities focused on expanding and disseminating new knowledge and best practices in the science education field to broader audiences. Second, the M.Ed. in science education program focuses extensively on helping future science teachers develop the multi-cultural skills and perspectives needed to work with diverse K-12 learners in an increasingly globalized society.

B. Student Learning Outcomes and Assessment Measures

SLO Type	Student Learning Outcome	Assessment Method	Degree Delivery
Knowledge	The student will investigate, identify, describe, and explain best practices in science teaching and learning.	Students will achieve passing scores on the Professional Education Test and appropriate content area components of the Florida Teacher Certification Exam (FTCE) administered and scored by the Florida Department of Education.	Campus
Skills	The student will organize content for instruction, develop and implement appropriate inclusive teaching practices, evaluate the impact of instruction on student learning, and create a positive learning environment.	Students will meet expectations on the summative Student Teacher Performance Evaluation Instrument completed by the student's Field Based Supervisor and University Based Supervisor for the culminating graduate field experience.	Campus

Professional Behavior	The student will collaborate with other professionals, reflect upon his or her own professional practice, and demonstrate a sense of efficacy and ethical practice.	Students will meet expectations on Section IV: Teacher Professionalism on the Student Teaching Performance Evaluation instrument completed by the student's Field Based Supervisor and University Based Supervisor for the culminating graduate field experience.	Campus

C. Research

The M.Ed. in Science Education program is not a research degree. Instead, it is an applied degree program focused on providing the coursework and field experiences required for middle and high school science teacher certification. However, as part of this state-approved and nationally-accredited professional teacher preparation program, students do engage in classroom-based action research activities. Specific examples of applied scholarship activities of students in the program include the use of interpretive research techniques to prepare case studies of exemplary real-world middle and high school science teaching during practicum field experiences and reflective self and peer evaluations of teaching performance during practicum and internship experiences.

D. Assessment Timeline

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

Assessment SLOs	Assessment 1	Assessment 2
Knowledge		
#1	FTCE Exams – General Knowledge, Professional Education, Subject Area (Prior to Graduation)	
Skills		
#2	Student Teaching Performance Evaluation Instrument - Completed by University Supervisor (At Conclusion of Spring Internship)	Student Teaching Performance Evaluation Instrument - Completed by Field-Based Supervisor (At Conclusion of Spring Internship)
Professional Behavior		
#3	Section IV: Student Teaching Performance Evaluation Instrument - Completed by University Supervisor (At Conclusion of Spring Internship)	Section IV: Student Teaching Performance Evaluation Instrument - Completed by Field-Based Supervisor (At Conclusion of Spring Internship)

E. Assessment Cycle

Program: M.Ed. in Science Education College: Education
Analysis and Interpretation: Completed by 9/30 each year
Program Modifications: Completed by 9/30 each year
Dissemination: Completed by 5/31 each year

Year SLOs	10-11	11-12	12-13	13-14	14-15	15-16
Content Knowledge						
#1	X	X	X	X	X	X
Skills						
#2	X	X	X	X	X	X
Professional Behavior						
#3	X	X	X	X	X	X

F. Measurement Tools

SLO 1**: Content Knowledge** mastery of each student is measured using the State of Florida Teacher Certification Exam (required for professional teacher certification). This exam consists of three parts: General Knowledge (GK), Professional Education (PE) and subject area examinations (6-12 Biology, Chemistry, or Physics). Passing scores are required on all 3 parts of the examination. See http://www.fl.nesinc.com/index.asp for additional information.

SLO 2 and SLO 3: **Skills** and **Professional Behavior** are both measured using the College of Education Student Teaching Performance Evaluation Instrument (Appendix 1). This instrument is aligned with mandated State of Florida Educator Accomplished Practices (http://www.fldoe.org/profdev/FEAPs) and a copy of this instrument is included with this assessment plan. The instrument is completed by each student's University Supervisor and Field Supervisor (Directing Teacher) at the conclusion of the Spring internship experience and students must receive satisfactory scores on all components of the assessment instrument.

G. Assessment Oversight

Name	Department Affiliation	Email Address	Phone Number
Linda Jones	School of Teaching and Learning	lcjones@coe.ufl.edu	273-4223
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

Rating: Unsatisfactory ① Developing ② Accomplished ③ Exceptional ④

	①	②	③	④
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	○	○	○	○

Part 2: UF Teacher Professionalism Indicators	①	②	③	④
As a professional, the effective educator:				
2.1 Reflects on the extent to which learning goals were met and how instruction can be changed to facilitate learning	○	○	○	○
2.2 Demonstrates a sense of efficacy	○	○	○	○
2.3 Builds professional relationships with colleagues to share teaching insights and to coordinate learning activities for students	○	○	○	○
2.4 Demonstrates initiative and self-reliance	○	○	○	○
2.5 Demonstrates enthusiasm for teaching	○	○	○	○
2.6 Demonstrates responsiveness to supervision (ability to accept constructive criticism and incorporate suggestions into teaching performance)	○	○	○	○
2.7 Demonstrates responsibility for maintaining accurate student records and other important information	○	○	○	○
2.8 Is punctual	○	○	○	○
2.9 Presents a professional appearance in dress, grooming, attitude, and demeanor	○	○	○	○
● OVERALL DOMAIN RATING:	○	○	○	○

Comments:

Signature: _____ Date: ___/___/___

Please return completed form to:
UNIVERSITY OF FLORIDA, COLLEGE OF EDUCATION, STUDENT SERVICES, G-416 NORMAN HALL
PO BOX 117042, GAINESVILLE, FL 32611-7042

UF UNIVERSITY of FLORIDA College of Education

Student Teaching Evaluation

Candidate Name (Last, First): _____ UFID: _____
Submitted by (Check One): ○ Directing Teacher ○ UF Supervisor ○ Other: _____
Name of Evaluator: _____ Placement Location and Grade Level(s): _____

This form is to serve as a permanent record of the summative evaluation of a teacher candidate's performance and demonstration of competence on the Florida Educator Accomplished Practices as part of the culminating field experience. Please rate the candidate's performance on each indicator, as well as an overall domain rating, when applicable.

Unsatisfactory	Developing	Accomplished	Exceptional
1	2	3	4
The candidate demonstrates little knowledge of this practice. The candidate is not yet prepared to demonstrate this skill in a practical setting.	The candidate is developing this practice. The candidate requires coaching and supervision to implement this skill in the practical setting.	The candidate usually demonstrates this practice. The candidate is independent in routine situations with minimal to no supervision required.	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.

Part 1: Florida Educator Accomplished Practices (FEAP)	①	②	③	④
FEAP1: Instructional Design and Planning Applying concepts from human development and learning theories, the effective educator consistently:				
1a. Aligns instruction with state-adopted standards at the appropriate level of rigor	○	○	○	○
1b. Sequences lessons and concepts to ensure coherence and required prior knowledge	○	○	○	○
1c. Designs instruction for students to achieve mastery	○	○	○	○
1d. Selects appropriate formative assessments to monitor learning	○	○	○	○
1e. Uses diagnostic student data to plan lessons	○	○	○	○
1f. Develops learning experiences that require students to demonstrate a variety of applicable skills and competencies.	○	○	○	○
● OVERALL FEAP 1 RATING:	○	○	○	○

Rating: Unsatisfactory (1) Developing (2) Accomplished (3) Exceptional (4)

FEAP 2: The Learning Environment

To maintain a student-centered learning environment that is safe, organized, equitable, flexible, inclusive, and collaborative, the effective educator consistently:

	1	2	3	4
2a. Organizes, allocates, and manages the resources of time, space, and attention	○	○	○	○
2b. Manages individual and class behaviors through a well-planned management system	○	○	○	○
2c. Conveys high expectations to all students	○	○	○	○
2d. Respects students' cultural, linguistic and family background	○	○	○	○
2e. Models clear, acceptable oral and written communication skill	○	○	○	○
2f. Maintains a climate of openness, inquiry, fairness and support	○	○	○	○
2g. Integrates current information & communication technologies	○	○	○	○
2h. Adapts the learning environment to accommodate the differing needs and diversity of students	○	○	○	○
2i. Utilizes current & emerging assistive technologies that enable students to participate in high-quality communication interactions & achieve their educational goals	○	○	○	○
● OVERALL FEAP 2 RATING:	○	○	○	○

FEAP 3: Instructional Delivery and Facilitation

The effective educator consistently utilizes a deep and comprehensive knowledge of the subject taught to:

	1	2	3	4
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 experiences	○	○	○	○
3f. Employ higher-order questioning techniques	○	○	○	○
3g. Apply varied instructional strategies and resources, including appropriate technology, 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 to students to promote student achievement	○	○	○	○
3j. Utilize student feedback to monitor instructional needs & to adjust instruction	○	○	○	○
● OVERALL FEAP 3 RATING:	○	○	○	○

Rating: Unsatisfactory (1) Developing (2) Accomplished (3) Exceptional (4)

FEAP 4: Assessment

The effective educator:

	1	2	3	4
4a. Analyzes and applies data from multiple assessments to diagnose students' learning needs and inform instruction based on those needs	○	○	○	○
4b. Designs & aligns formative & summative assessments that match learning objectives and lead to mastery	○	○	○	○
4c. Uses a variety of assessment tools to monitor student progress, achievement and learning gains	○	○	○	○
4d. Modifies assessments and testing conditions to accommodate learning styles and varying levels of knowledge	○	○	○	○
4e. Shares the importance and outcomes of student assessment data with the student and the student's parent / caregiver(s)	○	○	○	○
4f. Applies technology to organize and integrate assessment information	○	○	○	○
● OVERALL FEAP 4 RATING:	○	○	○	○

FEAP 5: Continuous Professional Development

The effective educator:

	1	2	3	4
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	○	○	○	○
● OVERALL FEAP 5 RATING:	○	○	○	○

Figure 1. University of Florida Graduate/Professional Program Assessment Plan Review Rubric

Related resources are found at http://www.aa.assessment.edu

Program: Year:

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