COURSE SYLLABUS

<table>
<thead>
<tr>
<th>Course Number: MAE 3920</th>
<th>Course Title: Professional Development III</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prerequisite(s):</strong></td>
<td><strong>Course Credit:</strong> 1 Hour</td>
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<tr>
<td><strong>Course Credit:</strong> 1 Hour</td>
<td><strong>Course Hours:</strong> Friday 12:20 – 1:10</td>
</tr>
<tr>
<td><strong>College:</strong> Arts &amp; Sciences</td>
<td><strong>Required Text(s):</strong></td>
</tr>
<tr>
<td><strong>Department:</strong> Mathematics</td>
<td><strong>Supplies:</strong> Hand-outs</td>
</tr>
<tr>
<td><strong>Faculty Name:</strong> Dr. Rebekah M. Lane</td>
<td><strong>Term and Year:</strong> Spring 2010</td>
</tr>
<tr>
<td><strong>Office Location:</strong> 302 Jackson – Davis Hall</td>
<td><strong>Place and Time:</strong> Jackson – Davis Hall / Room 408</td>
</tr>
<tr>
<td><strong>Office Location:</strong> 302 Jackson – Davis Hall</td>
<td><strong>Telephone:</strong> 850-561-2153</td>
</tr>
<tr>
<td><strong>Office Hours:</strong></td>
<td><strong>e-mail:</strong> <a href="mailto:rebekah.lane@famu.edu">rebekah.lane@famu.edu</a></td>
</tr>
<tr>
<td>Monday 1:30 – 2:30</td>
<td>Tuesday</td>
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<td>Wednesday 1:30 – 2:30</td>
<td>Thursday</td>
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<tr>
<td>Friday 1:30 – 2:30</td>
<td>Saturday</td>
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**Course Description**

This course is designed to acquaint the prospective teacher with the Standards for Professional Development of Teachers of Mathematics in secondary schools and to develop a Professional Development Plan (PDP).

**Conceptual Framework**

The Conceptual Framework in the Professional Education Unit (PEU) at Florida A&M University is an integrated approach to providing educational experiences that result in exemplary professional educators. The Framework is comprised of six themes with the mission of developing high quality classroom teachers, administrators and support personnel. The term “exemplary” refers to the kind of graduates the PEU strives to produce. The figure below provides a diagram of the Exemplary Professional Conceptual Framework.

The Conceptual Framework for the FAMU Professional Education Unit is grounded in a combination of directed, constructivist, developmental, and social learning theories derived from the writings of system theorists, educational philosophers, social scientists, practitioner and developmental theorists. Concepts from these writers and from the varied educational learned societies help form the knowledge base for the unit’s curriculum components and principles of its Conceptual Framework.

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I=Interstate New Teacher Assessment and Support Consortium Standards (INTASC)

(K)=Knowledge (S)=Skill (D)=Disposition

Approved/Revised 10/30/07
VALUES

• CF3
• Through this focal area, the FAMU professional education candidate will:

<table>
<thead>
<tr>
<th>CF: 3.1 (S)</th>
<th>Work with colleagues in a professional manner.</th>
<th>F: 6</th>
<th>I: 2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF: 3.4(D)</td>
<td>Be committed to individual excellence.</td>
<td>F: 3,9</td>
<td>I: 5.9</td>
</tr>
</tbody>
</table>

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CRITICAL THINKING

• CF4
• Through this focal area, the FAMU professional education candidate will:

| CF: 4.3 (D) | Value critical thinking and self-directed learning as habits of mind. | F: 4 | I: 1,4 |
| CF: 4.5 (S) | Demonstrate the use of higher order thinking skills. | F: 8 | I: 4 |

PROFESSIONALISM

• CF 5
• Through this focal area, the FAMU professional education candidate will:

| CF: 5.1 (K) | Know the content | F: 8 | I: 1 |
| CF: 5.2 (S) | Use the appropriate pedagogy to provide all students with the opportunity to learn. | F:7,9 | I: 7 |
| CF: 5.3 (D) | Demonstrate commitment to professional growth & development. | F:3,7 | I: 9 |
| CF: 5.5 (S) | Construct learning opportunities that support student development & acquisition of knowledge & motivation. | F: 7 | I: 5 |
| CF: 5.7 (S,D) | Display appropriate code of conduct including dress, language, and respective behavior. | F: 9 | I:5,9 |

Overall Goals of the Course

The overall goal of the course is to help the student to gain tools and techniques to develop into a model professional and take responsibility for his/her professional development.

Specific Behavioral Objectives

At the end of this course each student is expected to meet each of the following objectives with at least 70% proficiency. The student will model behavior that shows that he/she has:

1. experienced good mathematics teaching;
2. a knowledge of mathematics and how it relates to various professions;
3. knowledge of students as learners of mathematics;
4. knowledge of mathematics pedagogy;
5. ambition to develop as a teacher of mathematics;
6. the initiative and the knowledge to assume responsibility for his/her own development as a professional;

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7. knowledge of the professional development plan and how to prepare an appropriate PDP.

National, State, and PEU Standards Addressed in the Course

Interstate New Teacher Assessment and Support Consortium (INTASC) Standards

**Standard 1: Subject Matter**
The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and can create learning experiences that make these aspects of subject matter meaningful for students.

**Standard 2: Student Learning**
The teacher understands how children and youth learn and develop, and can provide learning opportunities that support their intellectual, social and personal development.

**Standard 4: Instructional Strategies**
The teacher understands and uses a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills.

**Standard 5: Learning Environment**
The teacher uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.

**Standard 6: Communication**
The teacher uses knowledge of effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.

**Standard 7: Planning Instruction**
The teacher plans and manages instruction based upon knowledge of subject matter, students, the community, and curriculum goals.

**Standard 8: Assessment**
The teacher understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social and physical development of the learner.

**Standard 9: Reflection and Professional Development**
The teacher is a reflective practitioner who continually evaluates the effects of her/his choices and actions on others (students, parents, and other professionals in the learning community) and who actively seeks out opportunities to grow professionally.

Professional Organization/Learned Society Standards

Six National Standards for the Professional Development of Teachers of Mathematics:
1. Modeling Good Mathematics Teaching
2. Knowledge of Mathematics
3. Knowing Students as Learners of Mathematics
4. Knowing Mathematical Pedagogy
5. Developing as a Teacher of Mathematics
6. The Teacher’s Role in Professional Development

NCATE/NCTM Program Standards for Secondary Mathematics:

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Standard 8: Knowledge of Mathematics Pedagogy
Candidates possess a deep understanding of how students learn mathematics and of the pedagogical knowledge specific to mathematics teaching and learning.

Standard 16: Field-Based Experiences
Candidates complete field-based experiences in mathematics classrooms.

Florida Educator Accomplished Practices (FEAPs)

ASSESSMENT
The preprofessional teacher collects and uses data gathered from a variety of sources. These sources include both traditional and alternate assessment strategies. Furthermore, the teacher can identify and match the students’ instructional plans with their cognitive, social, linguistic, cultural, emotional, and physical needs.

COMMUNICATION
The preprofessional teacher recognizes the need for effective communication in the classroom and is in the process of acquiring techniques which she/he will use in the classroom.

CONTINUOUS IMPROVEMENT
The preprofessional teacher realizes that she/he is in the initial stages of a lifelong learning process and that self-reflection is one of the key components of that process. While her/his concentration is, of necessity, inward and personal, the role of colleagues and school-based improvement activities increases as time passes. The teacher’s continued professional improvement is characterized by self-reflection, working with immediate colleagues and teammates, and meeting the goals of a personal professional development plan.

CRITICAL THINKING
The preprofessional teacher is acquiring performance assessment techniques and strategies that measure higher order thinking skills in students and is building a repertoire of realistic projects and problem-solving activities designed to assist all students in demonstrating their ability to think creatively.

HUMAN DEVELOPMENT AND LEARNING
Drawing upon well established human development/learning theories and concepts and a variety of information about students, the preprofessional teacher plans instructional activities.

KNOWLEDGE OF SUBJECT MATTER
The preprofessional teacher has a basic understanding of the subject field and is beginning to understand that the subject is linked to other disciplines and can be applied to real-world integrated settings. The teacher’s repertoire of teaching skills includes a variety of means to assist student acquisition of new knowledge and skills using that knowledge.

LEARNING ENVIRONMENTS
The preprofessional teacher understands the importance of setting up effective learning environments and has techniques and strategies to use to do so including some that provide opportunities for student input into the processes. The teacher understands that she/he will need a variety of techniques and work to increase his/her knowledge and skills.

Florida Teacher Certification Examination (FTCE) Subject Area Examination (SAE) Competencies and Skills

14 Knowledge of instruction

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1. Select appropriate resources for a classroom activity (e.g., manipulatives, mathematics models, technology, other teaching tools).
2. Identify methods and strategies for teaching problem-solving skills and applications (e.g., constructing tables from given data, guess-and-check, working backwards, reasonableness, estimation).

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Behavioral objectives</th>
<th>INTASC Standards</th>
<th>Professional Organization</th>
<th>FEAPs</th>
<th>FTCE SAE</th>
<th>PEU Conceptual Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>What Constitutes Good Teaching Activity (Presentation)</td>
<td>List and explain to the class characteristics of good mathematics teaching that you have seen modeled</td>
<td>INTASC: 1.0, 2.0, 4.0, 5.0, 7.0, 8.0, 9.0</td>
<td>FEAPs: 1.1, 2.1, 4.1, 7.1, 8.1, 8.1a</td>
<td>CF 3.4, CF 4.1, CF 4.3, CF 5.1</td>
<td></td>
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</tr>
<tr>
<td>How Students Learn Activity (Presentation)</td>
<td>List and explain to the class the various ways that students learn mathematics</td>
<td>INTASC: 1.0, 2.0, 4.0, 5.0, 7.0, 8.0, 9.0</td>
<td>FEAPs: 1.1, 2.1, 4.1, 7.1, 8.1, 8.1a</td>
<td>CF 3.4, CF 4.1, CF 4.3, CF 4.5, CF 5.1</td>
<td></td>
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</tr>
<tr>
<td>Professional Development Plan (PDP)</td>
<td>Create a PDP that reflects your goals as a future educator</td>
<td>INTASC: 1.0, 2.0, 4.0, 5.0, 7.0, 8.0, 9.0</td>
<td>FEAPs: 1.1, 2.1, 4.1, 7.1, 8.1, 8.1a</td>
<td>CF 3.4, CF 4.1, CF 4.3, CF 5.1</td>
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Teaching Methods

Teaching methods will be lecture, group discussion, student presentation, and direct observation in the classroom. The student will be required to spend at least 4 hours observing classroom teachers.

Course Evaluation

Research project – 40%
Clinals - 20%
Activities - 20%
PDP and Portfolio – 20%

Grading

The following scale shall be used as evaluation for final grades.

100 – 90 – A
89 – 80 – B
79 – 70 – C
69 – 60 – D
Below 60 – F

Course Policies

Policy Statement on Non-Discrimination It is the policy of Florida Agricultural and Mechanical University to assure that each member of the University community be permitted to work or attend classes in an environment free from any form of discrimination including race, religion, color, age, disability, sex, marital status, national origin, veteran status and sexual harassment as prohibited by state and federal statutes. This shall include applicants for admission to the University and employment.

Academic Honor Policy The University’s Academic Honor Policy is located in the FANG Student Handbook, under the Student Code of Conduct- Regulation 2.012 section, beginning on page 55-56.

ADA Compliance To comply with the provisions of the Americans with Disabilities Act (ADA), please advise instructor of accommodations required to insure participation in this course. Documentation of disability is required and should be submitted to the Learning Development and Evaluation Center (LDEC). For additional information please contact the LDEC at (850) 599-3180.

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ATTENDANCE: This is a one (1) hour course and you are allowed one (1) unexcused absence. Please take that into consideration at all times. Excused absences that are signed by the dean’s office will not excuse assignments that are due or any assigned presentations. Those who exceed the allowed unexcused absences will receive an “F” as a final grade.

All students are expected to attend class each time a meeting is scheduled. You do not have to attend class on days on which you are assigned a clinical or an activity. All evaluations and critiques will be submitted via portfolio. No assignments will be accepted late. Be sure your course number and the assignment name is on the paper.

**Tentative Course Calendar**

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
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<tbody>
<tr>
<td>1/08/10</td>
<td>Introduction and syllabus</td>
</tr>
<tr>
<td>1/15/10</td>
<td>Do some research on what constitutes good teaching and relate any positive experiences you have had that you feel served as a model for you as a teacher. (For class discussion)</td>
</tr>
<tr>
<td>1/22/10</td>
<td>Discussion of National Standards / knowledge and skill building activities</td>
</tr>
<tr>
<td>1/29/10</td>
<td>Integrating mathematics, writing objectives, and worthwhile tasks Evidencing integration across other curricular Activity</td>
</tr>
<tr>
<td>2/5/10</td>
<td>Discussion – How students learn. List ways in which students learn. How can assessment assist in helping a teacher determine a student’s individual learning style?</td>
</tr>
<tr>
<td>2/12/10</td>
<td>Assessing student learning. Discussion – Pedagogy</td>
</tr>
<tr>
<td>2/19/10</td>
<td>Pedagogy</td>
</tr>
<tr>
<td>2/26/10</td>
<td>Professional Development Plan</td>
</tr>
<tr>
<td>3/5/10</td>
<td>Clinical / activity</td>
</tr>
<tr>
<td>3/12/10</td>
<td>Spring Break</td>
</tr>
<tr>
<td>3/19/10</td>
<td>Clinical / activity</td>
</tr>
<tr>
<td>3/26/10</td>
<td>Clinical / activity</td>
</tr>
<tr>
<td>4/2/10</td>
<td>Clinical / activity (present draft of PDP)</td>
</tr>
<tr>
<td>4/9/10</td>
<td>Discussion of goals, philosophy, and professional development. The portfolio and PDF are due.</td>
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<tr>
<td>4/16/10</td>
<td>Pick up Portfolios from my office (time will be advised)</td>
</tr>
</tbody>
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References


www.nctm.org

www.ncate.org

www.fldoe.org

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