Florida Agricultural and Mechanical University  
Professional Education Unit  
Tallahassee, Florida 32307

COURSE SYLLABUS

<table>
<thead>
<tr>
<th>Course Number: MAE 1920</th>
<th>Course Title: Professional Development I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite(s):</td>
<td>Required Text(s): Handouts</td>
</tr>
<tr>
<td>Course Credit: 1 Hour</td>
<td>Term and Year: Spring 2009</td>
</tr>
<tr>
<td>College: Arts &amp; Sciences</td>
<td>Place and Time: Jackson – Davis Hall / Room 408</td>
</tr>
<tr>
<td>Department:</td>
<td>Supplies:</td>
</tr>
<tr>
<td>Faculty Name: Dr. Rebekah M. Lane</td>
<td>Telephone: 850-561-2153</td>
</tr>
<tr>
<td>Office Location: 302 Jackson – Davis Hall</td>
<td>e-mail: <a href="mailto:rebekah.lane@famu.edu">rebekah.lane@famu.edu</a></td>
</tr>
</tbody>
</table>

Office Hours | Monday 1:30 – 2:30 | Tuesday 1:30 – 2:30 | Wednesday 1:30 – 2:30 | Thursday 1:30 – 2:30 | Friday 1:30 – 2:30 | Saturday |

Course Description

This course is designed to acquaint the prospective teacher with the national and state standards for teaching mathematics in secondary schools.

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.

F=Florida Educator Accomplished Practices Standards (FEAPS)  
I=Interstate New Teacher Assessment and Support Consortium Standards (INTASC)  
(K)=Knowledge    (S)=Skill    (D)=Disposition

Approved/Revised 10/30/07
## TECHNOLOGY

**CF 2**

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

<table>
<thead>
<tr>
<th>CF: 2.3 (K)</th>
<th>Know fundamental concepts in technology.</th>
<th>F: 12</th>
<th>I: 1,6</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF: 2.4 (K)</td>
<td>Understand fundamental concepts in technology.</td>
<td>F: 2,12</td>
<td>I: 6</td>
</tr>
</tbody>
</table>

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### CRITICAL THINKING

**-CF4**

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

<table>
<thead>
<tr>
<th>CF: 4.1 (K)</th>
<th>Understand a variety of instructional/professional strategies to encourage student development of critical thinking and performance.</th>
<th>F:4,7</th>
<th>I: 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF: 4.3 (D)</td>
<td>Value critical thinking and self-directed learning as habits of mind.</td>
<td>F: 4</td>
<td>I: 1,4</td>
</tr>
<tr>
<td>CF: 4.5 (S)</td>
<td>Demonstrate the use of higher order thinking skills.</td>
<td>F: 8</td>
<td>I: 4</td>
</tr>
</tbody>
</table>

### PROFESSIONALISM

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

<table>
<thead>
<tr>
<th>CF: 5.1 (K)</th>
<th>Know the content</th>
<th>F: 8</th>
<th>I: 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF: 5.2 (S)</td>
<td>Use the appropriate pedagogy to provide all students with the opportunity to learn.</td>
<td>F:7,9</td>
<td>I: 7</td>
</tr>
<tr>
<td>CF: 5.4 (K,S)</td>
<td>Use major concepts, principles, theories &amp; research related to the development of children and adults.</td>
<td>F: 7</td>
<td>I: 2</td>
</tr>
<tr>
<td>CF: 5.5 (S)</td>
<td>Construct learning opportunities that support student development &amp; acquisition of knowledge &amp; motivation.</td>
<td>F: 7</td>
<td>I: 5</td>
</tr>
<tr>
<td>CF: 5.7 (S,D)</td>
<td>Display appropriate code of conduct including dress, language, and respective behavior.</td>
<td>F: 9</td>
<td>I:5,9</td>
</tr>
</tbody>
</table>

### Overall Goals of the Course

The overall goal of this course is to provide the student with the kind of experiences which will enable him/her, as a teacher, to be able to exemplify the type of teaching behaviors that will meet national and state standards.

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**Specific Behavioral Objectives**

Each student is expected to perform at or above the 70% level for each of the following.

The student will be able to:

1. explore his/her motivation for teaching;
2. develop practicums that demonstrate an understanding of worthwhile tasks, discourse and application of standards related to assessment and learning environment;
3. develop practicums that demonstrate an understanding of the use of technology in teaching;
4. develop activities and present information to demonstrate an understanding of assessment;
5. demonstrate an understanding of the need to do research and investigation of various methods of teaching;
6. demonstrate an understanding of the Accomplished Practices and how they relate to national standards;
7. demonstrate effective means of communication;
8. relate at least 4 classroom observations to national standards;
9. participate in field clinicals under the supervision of a public school teacher;
10. understand the role of the teacher and the role of the student in the interchange of discourse;
11. understand the importance of the learning environment;
12. analyze teaching and learning in order to enhance teaching.

**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.

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**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 Teaching Mathematics:**
1. Worthwhile Mathematical Tasks
2. Teacher’s Role in Discourse
3. Student’s Role in Discourse
4. Tools for Enhancing Discourse
5. Learning Environment
6. Analysis of Teaching and Learning

**NCATE/NCTM Program Standards for Secondary Mathematics:**

**Standard 6: Knowledge of Technology**
Candidates embrace technology as an essential tool for teaching and learning mathematics.

**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.

**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**

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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.

**PLANNING**

Recognizing the importance of setting high expectations for all students, the preprofessional teacher works with other professionals to design learning experiences that meet students’ needs and interests. The teacher candidate continually seeks advice/information from appropriate resources (including feedback), interprets the information, and modifies her/his plans appropriately. Planned instruction incorporates a creative environment and utilizes varied and motivational strategies and multiple resources for providing comprehensible instruction for all students. Upon reflection, the teacher continuously refines outcome assessment and learning experiences.

**TECHNOLOGY**

The preprofessional teacher uses technology as available at the school site and as appropriate to the learner. She/he provides students with opportunities to actively use technology and facilitates access to the use of electronic resources. The teacher also uses technology to manage, evaluate, and improve instruction.

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

14 Knowledge of instruction
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).

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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.

<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>Philosophy of Education</td>
<td>Explore his/her motivation for teaching</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></td>
<td>CF 1.5, CF 4.1, CF 4.3, CF 5.1</td>
<td></td>
</tr>
<tr>
<td>Worthwhile Mathematical Tasks (Activity)</td>
<td>Develop practicums that demonstrate an understanding of worthwhile tasks</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></td>
<td>CF 1.5, CF 4.1, CF 4.3, CF 4.5, CF 5.1</td>
<td></td>
</tr>
<tr>
<td>Research Paper</td>
<td>Write a paper that demonstrates an understanding of how the National &amp; State standards are used in the mathematics classroom</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></td>
<td>CF 1.5, CF 4.1, CF 4.3, CF 5.1</td>
<td></td>
</tr>
</tbody>
</table>

**Course Evaluation**

Students will be evaluated on the portfolio, and classroom assignments. As a writing requirement, each student will submit a research paper, entitled *Effectiveness of Application of National and State Standards in the Mathematics Classroom*.

**Grading**

The following scale shall be used for final grades.

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

**Course Policies**

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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.

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 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. This course will meet each Monday, January 11, to March 1, 2010. The weeks from March 15 to April 5, 2010 are reserved for clinical activities and class will meet again on April 12, 2010 to submit the portfolios.

ASSIGNMENTS: All hand-in assignments are due when indicated by the instructor and should be handed in on time. Reports and observation evaluations should be typed in neat form. No late assignments will be accepted and no makeup work will be given. Course name and assignment title should be on all handed in assignments.

Tentative Course Calendar

<table>
<thead>
<tr>
<th>DATE</th>
<th>ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/11/10</td>
<td>Introduction / Course Syllabus</td>
</tr>
<tr>
<td>1/18/10</td>
<td>How to study mathematics/Worthwhile tasks (Hand-outs)</td>
</tr>
<tr>
<td>1/25/10</td>
<td>Holiday</td>
</tr>
<tr>
<td>2/1/10</td>
<td>Activity – Worthwhile tasks</td>
</tr>
<tr>
<td>2/8/10</td>
<td>Philosophy of Education / Discourse</td>
</tr>
<tr>
<td>2/15/10</td>
<td>Practicums on discourse</td>
</tr>
<tr>
<td>2/22/10</td>
<td>Learning environments and technology</td>
</tr>
<tr>
<td>3/1/10</td>
<td>Assessment / activity</td>
</tr>
<tr>
<td>3/8 – 3/12</td>
<td>Spring Break</td>
</tr>
<tr>
<td>3/15/10</td>
<td>Classroom Observation</td>
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<tr>
<td>3/22/10</td>
<td>Classroom Observation</td>
</tr>
<tr>
<td>3/29/10</td>
<td>Classroom Observation</td>
</tr>
<tr>
<td>4/5/10</td>
<td>Classroom Observation</td>
</tr>
<tr>
<td>4/12/10</td>
<td>Submission of Portfolio</td>
</tr>
<tr>
<td>4/19/10</td>
<td>Portfolio Review</td>
</tr>
</tbody>
</table>

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www.nctm.org

www.ncate.org

www.fldoe.org

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