Miami Dade College

**Course Description**

**MAE4945 | Internship in Mathematics Education | 9.00 credits**

The student will engage in the educational and professional responsibilities common to teachers in the secondary mathematics classroom. This internship experience reinforces and augments teaching strategies that students have developed through their coursework and clinical experiences students participate in a full-time, supervised teaching experience. Co-requisites: MAE4942.

**Course Competencies:**

**Competency 1:** The student will create and maintain a safe learning environment while encouraging fairness, respect, and enthusiasm by:

1. Identifying and addressing the needs of all learners
2. Respecting individual differences (I.e., cultural, linguistic, and learning styles)
3. Adapting the learning environment to accommodate all students' needs and backgrounds (i.e., culture, home language, family)
4. Organizing, allocating, and managing time, space, and attention resources
5. Managing individual and class behaviors through a well-planned management system
6. Conveying high expectations to all students
7. Modeling clear, acceptable oral and written communication skills
8. Maintaining a climate of openness, inquiry, fairness, and support
9. Integrating current information and communication technologies
10. Adapting the learning environment to accommodate students' differing needs and diversity
11. Utilizing current and emerging assistive technologies that enable students to participate in high-quality communication interactions and achieve their educational goals

**Competency 2:** The student utilizes appropriate curricula, instructional strategies, and resources to develop lesson plans that include goals, objectives, learning activities, formative checks for understanding, assessment of student learning, and home learning to address the diverse needs of students by:

1. Applying concepts from human development and learning theories
2. Aligning instruction with state-adopted standards at the appropriate level of rigor
3. Sequencing lessons and concepts to ensure coherence and required prior knowledge
4. Designing instruction for students to achieve mastery
5. Selecting appropriate formative assessments to monitor learning
6. Utilizing diagnostic student data to plan lessons
7. Developing learning experiences that require students to demonstrate various applicable skills and competencies

**Competency 3:** The student will promote mathematics learning by:

1. Demonstrating accurate content knowledge
2. Identifying and addressing academic needs through appropriate instructional strategies and technologies that engage learners
3. Delivering engaging and challenging lessons
4. Utilizing motivational strategies to engage and challenge all students
5. Deepening and enriching students' understanding through content area literacy strategies, verbalization of thought, and application of the subject matter
6. Identifying gaps in students' subject matter knowledge
7. Modifying instruction to respond to preconceptions or misconceptions
8. Relating and integrating the subject matter with other disciplines and life experiences
9. Employing higher-order questioning techniques
10. Applying varied instructional strategies and resources, including appropriate technology, to provide comprehensible instruction and to teach for student understanding
11. Implementing knowledge and skills learned in professional development in teaching and learning

**Competency 4:** The student will gather, analyze, and use data to measure learner progress, guide instruction, and provide timely feedback by:

1. Analyzing and applying data from multiple assessments and measures to diagnose students' learning needs, informs instruction based on those needs, and drives the learning process
2. Designing and aligning formative and summative assessments that match learning objectives and lead to mastery
3. Utilizing various assessment tools to monitor student progress, achievement, and learning gains
4. Differentiating instruction based on assessing student learning needs and recognizing individual differences in students
5. Providing immediate and specific feedback to students to promote student achievement
6. Utilizing student feedback to monitor instructional needs and to adjust instruction
7. Modifies assessments and testing conditions to accommodate learning styles and varying levels of knowledge
8. Applying technology to organize and integrate assessment information

**Competency 5:** The student will communicate effectively with secondary science students, their parents or families, staff, and other members of the learning community by:

1. Sharing the importance and outcomes of student assessment data with the student and the student's parent/caregiver(s)
2. Collaborating with colleagues to evaluate learning outcomes, adjust planning, and continuously improve the effectiveness of the lessons
3. Collaborating with the home, school, and larger communities to foster communication and support student learning and continuous improvement

**Competency 6:** The student will demonstrate behavior consistent with legal, ethical, and professional standards and engage in continuous professional growth by:

1. Applying the Principles of Professional Conduct to professional and personal situations
2. Identifying statutory grounds and procedures for disciplinary action, the penalties that the Educational Practices Commission can impose against a certificate holder, and the appeals process available to the individual
3. Applying knowledge of rights, legal responsibilities, and procedures for reporting abuse, neglect, or other signs of distress
4. Identifying and applying policies and procedures for the safe, appropriate, and ethical use of technologies
5. Applying the appropriate use and maintenance of students' information and records

**Competency 7:** The student will plan and implement instruction, which provides K-12 students the opportunity by:

1. Making sense of problems and persevere in solving them
2. Reasoning abstractly and quantitatively
3. Creating viable arguments and critiquing the reasoning of others
4. Modeling with mathematics
5. Using appropriate tools strategically
6. Using communication, oral, and written skills to clearly and precisely share their mathematical ideas and arguments
7. Recognizing and using mathematical structures
8. Recognizing and expressing regularity in repeated reasoning

**Learning Outcomes:**

- Use quantitative analytical skills to evaluate and process numerical data
- Solve problems using critical and creative thinking and scientific reasoning
- Demonstrate knowledge of ethical thinking and its application to issues in society
- Create strategies that can be used to fulfill personal, civic, and social responsibilities