



## Standards Mapped Graduate Education and Mentoring Program



### Principal Investigator

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### Description of the Program

- Partnership between **Florida Atlantic University** and **Broward County School District**, the nation's sixth largest fully-accredited school district
- Dedicated team of researchers, administrators, and teachers provide a strong foundation for the success of the program
- Institute created a new curriculum for graduate-level middle grade teacher education
  - Jointly developed with Broward District
  - Meetings scheduled regularly with the district to coordinate and improve the activities of the program
- Curriculum strongly based on technology and science integration
- After completion, teachers receive a master of science in teaching mathematics degree

### Program Components

- Evening Spring and Fall semester classes
- Pedagogy Conferences during each Spring and Fall semester
  - Held on Saturdays
  - Participating teachers plan and deliver workshops
  - Lectures by invited faculty
  - Given to other mathematics teachers from the district
  - Foster communication and cooperation among teachers
- Intensive Summer Institutes
  - Ten days of workshops and lectures for mathematics teachers in the district. Workshops given by participating teachers
  - Summer course where participating teachers receive graduate level credit. Invited faculty give lectures from other states and countries
- Online community, mentoring and leadership training

### Goals of Institute

- University Level
  - Increase relevance and timeliness of University education for Middle Grade Mathematics teachers
    - Increase University-District Communication
    - Increase faculty awareness with teaching in other grade levels

- District Level
  - Enhance the pedagogical content knowledge of SBBC Middle Grade Mathematics teachers to deliver quality mathematics education
    - Foster teacher leaders
    - Build community and networking among teachers
    - Increase technology knowledge
- Student Level
  - Demonstrate a positive impact on student classroom performance and standardized tests
    - Evaluation component
    - Quantify the impact of Institute activities

### Indicators of Success

- Evaluation Components
  - Monitor and report to NSF and Project leaders
  - Participating teacher interviews, class visits and questionnaires
  - District wide assessment test comparative analysis of classes
- Assessment Findings
  - Studies demonstrate that teachers in the program
    - Increased their students scores in the Florida Comprehensive Achievement Test (with statistical significance)
    - Made mathematical knowledge content gains
    - Increased classroom and pedagogical effectiveness
    - Empowered for district wide and state wide leadership
- Leadership and Outreach
  - During the year 2009, the participating teachers and graduates of the program gave over 140 workshops and presentations within the nation, region, district, and their own schools
  - More than 20 of the graduates have assumed leadership positions within the district (curriculum specialists, department heads, coaches)

### Technology Emphasis

- Supplement Grant was obtained to develop, train and integrate the use of **GeoGebra** in the classrooms
  - [www.geogebra.org](http://www.geogebra.org)
- GeoGebra, Excel, PowerPoint, design and use of interactive web-materials, use of html editors are part of the classes, workshops, and summer institutes
- Teachers have shown growth in technology literacy
- Teachers have become trainers in technology
  - In the year 2009, 37 workshops were given nation wide by the graduates
- Teachers continue implementing technology in their classrooms