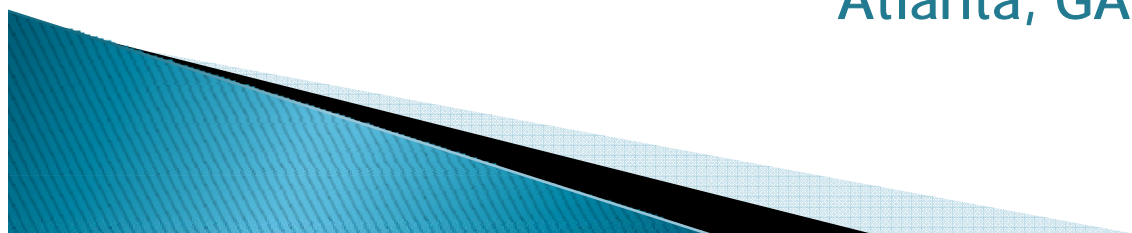


# Technology Gateway Case Study:

## Engaging At-risk Students and Diverse Learners to Promote Success in the Classroom

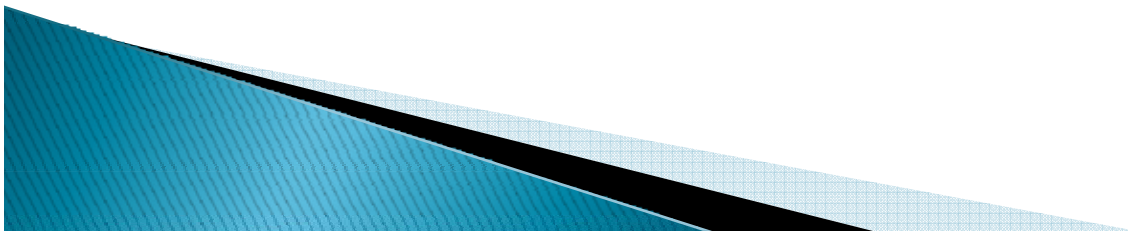
Tressa Gardner & Randy Singer

2009 NCPN Conference  
Atlanta, GA



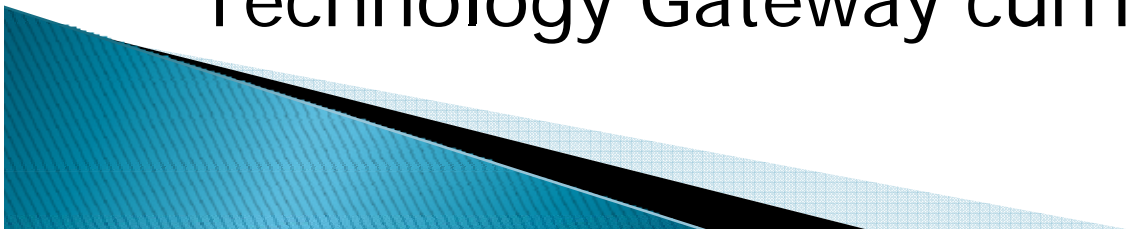
# SC ATE Center of Excellence

- ▶ To increase the quality, quantity, and diversity of Engineering Technology graduates in support of economic development
- ▶ Partially funded by the National Science Foundation (NSF)



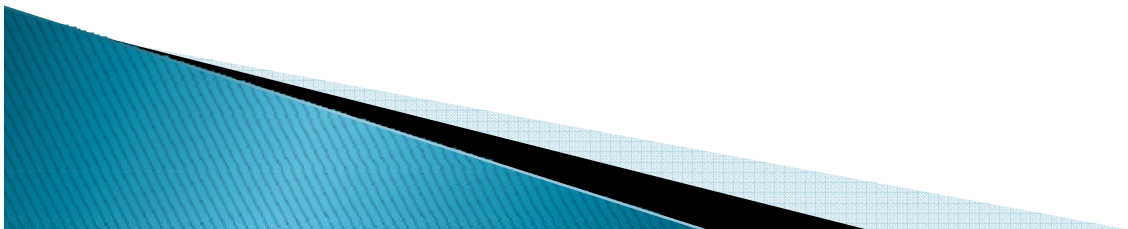
# SC ATE Center of Excellence

- ▶ SC ATE National Resource Center for Expanding Excellence in Technician Education (EEITE)
- ▶ Major partner – National Dropout Prevention Center at Clemson University
- ▶ Partnering with a Georgia High School and three Two-year Colleges to offer the Technology Gateway curriculum



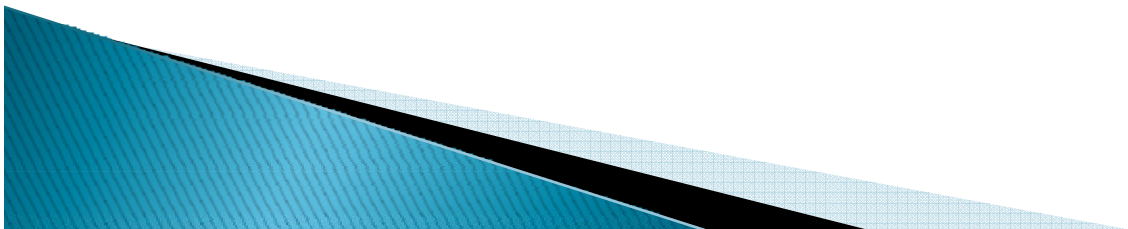
# NDPC's At-Risk Student Intervention Implementation Guide

- ▶ Identification of high quality programs to help decrease SC's school dropout population
- ▶ Tier 1 - Exemplary programs
- ▶ Tier 2 - Promising programs



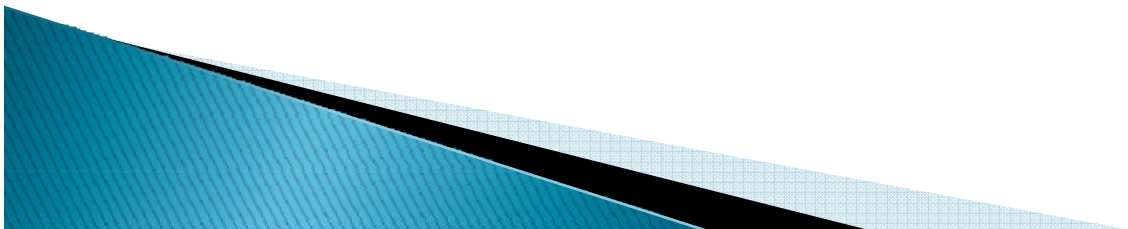
# Technology Gateway

- ▶ Integrated, multiple-disciplined, problem-based curriculum comprised of workplace scenarios
- ▶ Increases the opportunity for high school students to become “college ready”



# Technology Gateway in HS's

- ▶ Promotes on-time graduation to increase retention and success
- ▶ Provides clear pathways to technology-based careers
- ▶ Ramp to technology-based, post-secondary programs

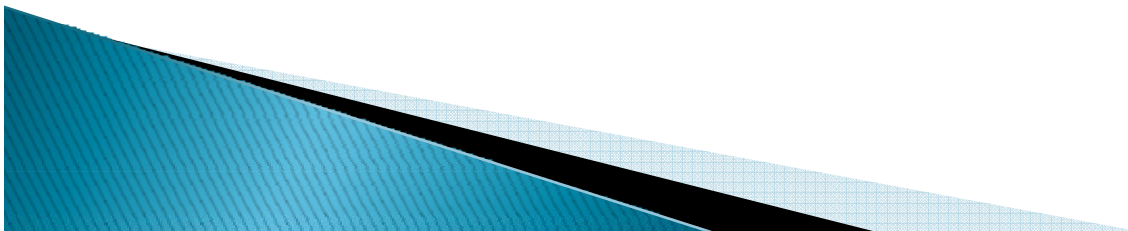


# Technology Gateway at White County High School, GA



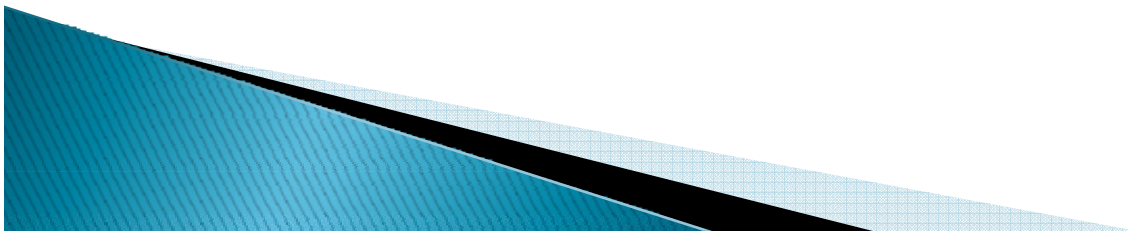
# *What is it?*

*An integrated, multi-discipline {mathematics and science}, problem-based curriculum taught in a course to prepare and remediate students for the Georgia High School Graduation Test.*



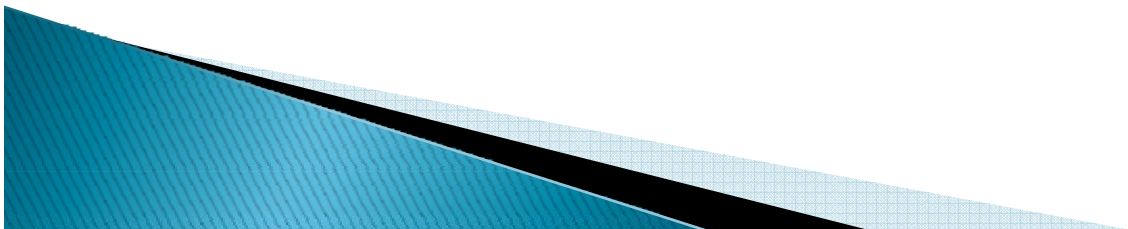
# *The Course*

1. Originally co-taught as Mathematical Money Management 27.053 {FTE state code}
2. Counted as the third required math for graduation for technical seal students
3. Concentrated on:
  - a} Curriculum for Money Management
  - b} Math-Science Prep for the Georgia High School Graduation Test
  - c} Problem Based Scenarios



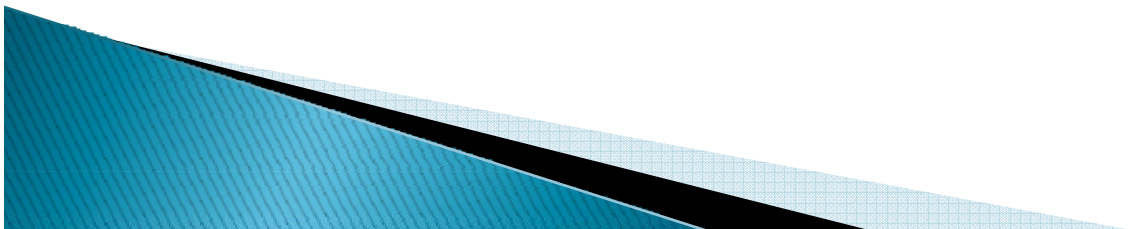
# *The Course*

1. Now taught as Science Principles
2. Counts as an elective credit
3. Concentrates on:
  - a} Curriculum for basic principles of physical science and biology
  - b} Math-Science Prep for the Georgia High School Graduation Test
  - c} Problem Based Scenarios



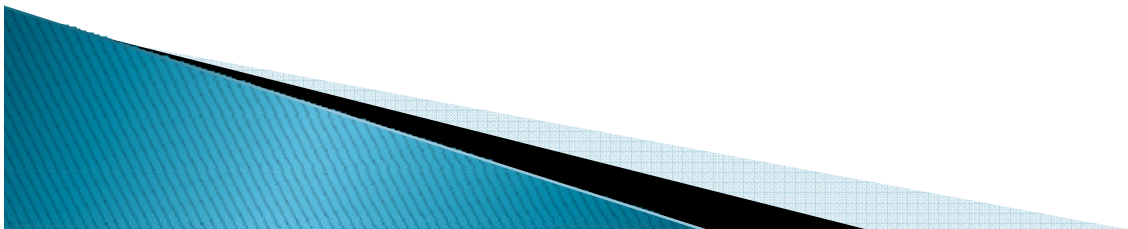
# *The Students*

- ▶ Juniors and Seniors
- ▶ Those who have taken and failed the math section, the science section or both on the GHSGT
- ▶ Those identified as at-risk to fail the science/math section of the GHSGT



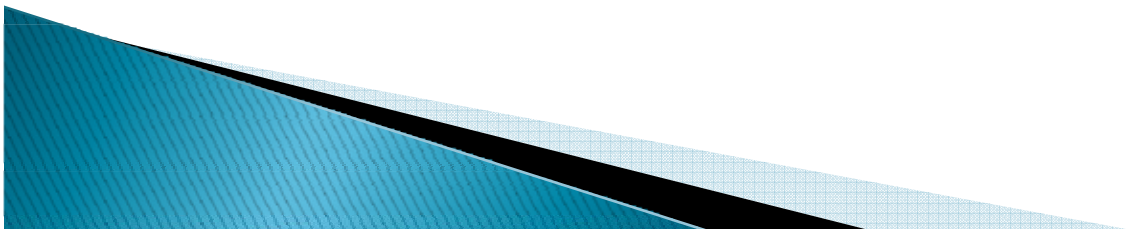
# *The Teachers*

- ▶ Randy Singer - Teacher of Science, BS in Biology, Master of Arts in Science Teaching, 15 years teaching experience
  
- ▶ Angela Helton - CTAE Director, White County High School



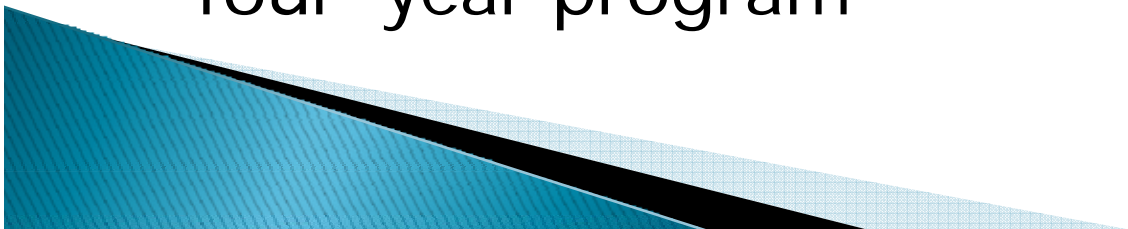
# *Those Involved*

1. White County Board of Education
2. Superintendent
3. Curriculum Director
4. High School Graduation Coach
5. Counselors
6. Principal



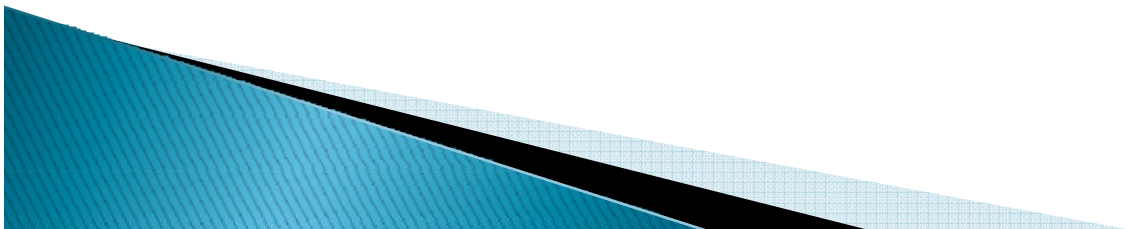
# *Training*

- ▶ Summer 2006 training at Stephens County HS, Georgia
- ▶ Spring 2007 training at National Dropout Prevention At-Risk Youth Forum
- ▶ Instructional Leadership Institutes – spring '08 and '09
- ▶ Full SC ATE staff support throughout the four-year program



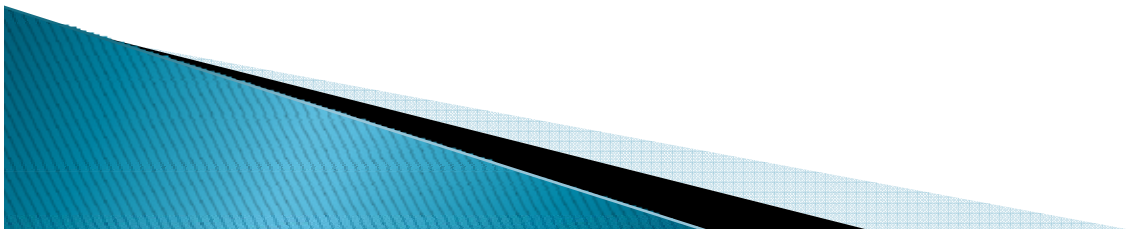
# *Communication*

- ▶ Statistics on participating students are communicated to SC ATE
- ▶ Statistics on progress of both the course and students will be provided to SC ATE and White County administrative personnel



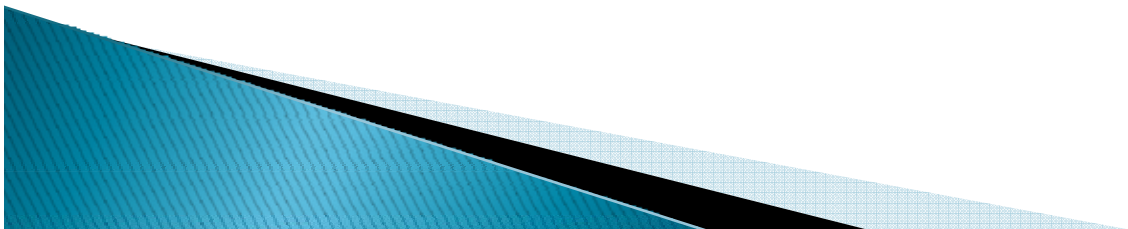
# *Resources for Success*

- ▶ SC ATE staff
- ▶ Teacher training
- ▶ Curriculum guides
- ▶ Internet resources
- ▶ Administrator
- ▶ Texts
- ▶ Facilities-classroom and computer lab
- ▶ GHSGT prep materials
- ▶ CD-video support



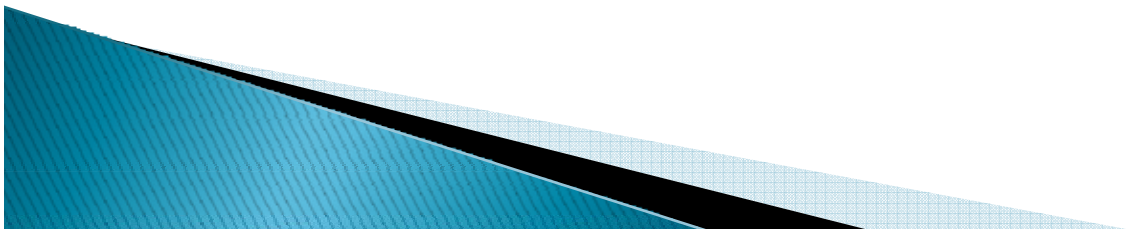
# *Desired Outcomes*

1. Increase the pass rate on the Georgia High School Graduation Test in the areas of Math and Science
2. Increase the High School Graduation rate
3. Enjoy academic success in a science class, perhaps for the first time



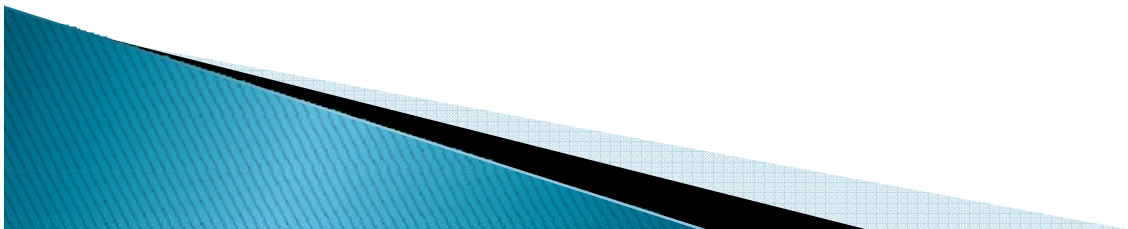
# *White County High School, GA*

- ▶ Began fall semester of '07-'08 school year
- ▶ Fifth Cohort of Technology Gateway began fall 2009
- ▶ To date, over 80% of students who took TG Money Management course passed Georgia Graduation &/or Exit exams



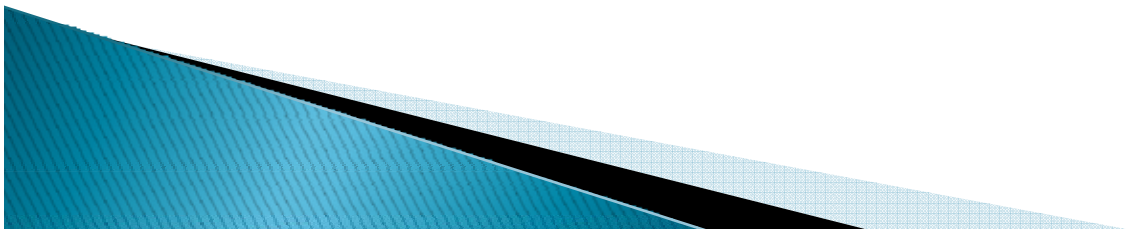
# *Class Results*

- ▶ Fall '07 - >80% pass rate
- ▶ Spring '08 - >90% pass rate
- ▶ Fall '08 - 90% pass rate
- ▶ Spring '09 - >90% pass rate



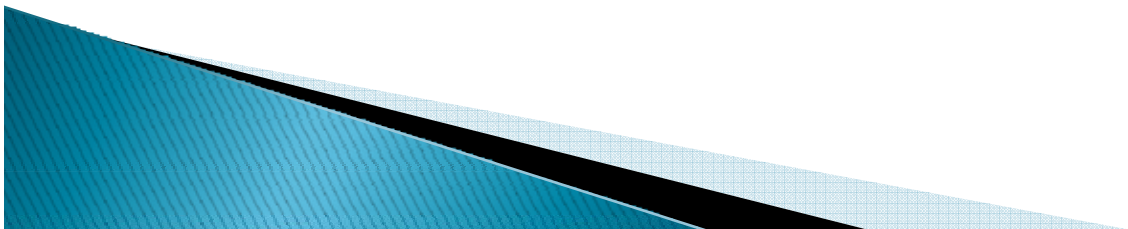
# *Case Study of White County HS*

- ▶ Use of the SC ATE Technology Gateway Curriculum for Dropout Prevention
- ▶ Prepared by Dr. Amy Germuth, Compass Consulting
- ▶ Posted online at <http://tiny.cc/CaseStudy971>, SCATE.org under Educator/Resources or TeachingTechnicians.org/Resources/Books



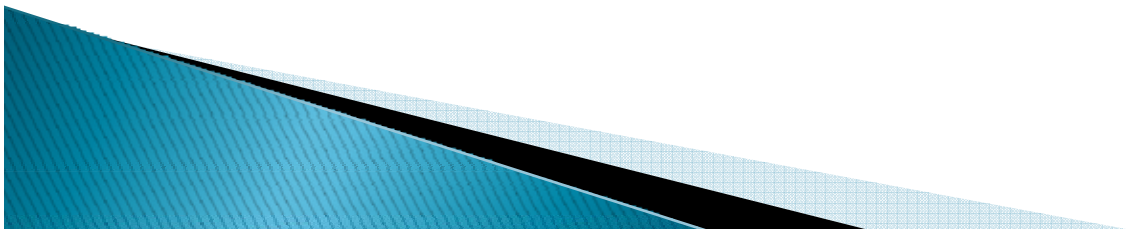
# *Evaluation Forms*

- ▶ Please complete and leave on your tables.
- ▶ Thank you!



# Contact information:

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- ▶ White County High School
- ▶ [RSinger@white.k12.ga.us](mailto:RSinger@white.k12.ga.us)



# Contact information:

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[www.scate.org](http://www.scate.org)

