A PATHWAY TO SUCCESS

- Be Deliberate but Flexible
- Assess the institution and community’s current needs
- Let the literature be your guide
- Set short and long term goals
- Revise as necessary
- Bring in enthusiastic faculty leaders
- Don’t force anyone
- Provide professional development
- Be fearless!!!
- Ask for administrative support
- Local and National
- Explore all avenues for funding
- Actively seek partnerships, don’t wait for them to find you
- Networking is crucial
- Formative and summative
- Qualitative, quantitative, and external
- Don’t be afraid to revise the plan as necessary
- Free workshops
- Think about who you know
- Ask to partner or grants
- Be data informed and inform those around you
- Cite your partnerships in proposals
- Don’t stop talking!
- 5 minute speech about your program
- Talk to everyone
- Publish your work

Get the Right “Geese” Involved

Seek Assistance

Assess and Learn

Use Your Leverage

Be Your Own Advocate

Professional development was the key to faculty buy-in. Revised curricula gave students necessary tools for research. Partnership with CUR led to a partnership with CCURI, which helped provide professional development for faculty. College buy-in allowed for the use of lab fees and equipment funds to ramp-up our facilities for research. Each conference or workshop attended led to more opportunities for faculty. Partnerships were actively sought both locally and nationally. A relatable theme (the local soil and water) allowed students to see the potential impact of the research on their community.

Partnerships are Key

One is the loneliest number……

One student was accepted into an NIH research internship program for Summer 2017. One student who has been active in research awarded NC State’s Goodnight the Jack Kent Cooke Transfer Scholarship. Two students in the past two years who have been active in research, were awarded science department to psychology, dietetics, and the humanities. The practice of course embedded undergraduate research has spread beyond the Creativity Symposium. SPARC Director Gaston and Lincoln County Schools

San Diego State University

UC San Diego

Yale

NSF

PULSE

North Carolina Science Festival

Charlotte Area Science Network

SPARC

See the impact of the storm, the whirlwind, and the earthquake. -Frederick Douglass

IT ALL BEGAN WITH A SPARC: A COMMUNITY COLLEGE MODEL

Ashley Hagler, M.S., M.A.T., Dr. Melissa Armstrong, and Dr. Heather Woodson

Gaston College

A TIME FOR GROWTH AND CHANGE

Shaking Things Up in the Field and Lab

Faculty and College Buy-In

Professional development

Wrap-Around Student Services

Scholarships

Monitoring

Targeted Advising

Success Workshops

Inquiry-Based Learning

POGIL

PBL

Case Studies

Community Outreach

SPARC of Genius Award

Local Partnerships

Service Learning

Undergraduate Research

SPARC Professional Development Conference

Skills Workshops

Local and National Conferences

DNA Barcoding

Surface Chemistry

General Biology I

Figure 1: Enrollment increase in the Associate of Science Program at Gaston College since inception of SPARC.

Figure 2: Fall-to-Fall Retention increase in the Associate of Science Program at Gaston College since inception of SPARC.

Figure 3: Course Success Rates in gatekeeper courses increase

Figure 4: Graduation increase in the Associate of Science Program at Gaston College since inception of SPARC.

• Over 300 students have presented at the Gaston College Undergraduate Research and Creativity Symposium

• Over 400 students involved in course embedded research every semester

• The practice of course embedded undergraduate research has spread beyond the science department to psychology, dietetics, and the humanities

• Two students in the past two years who have been active in research, were awarded the Jack Kent Cooke Transfer Scholarship.

• One student who has been active in research awarded NC State’s Goodnight Scholarship.

• One student was accepted into an NIH research internship program for Summer 2017.

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- college: Gaston College
- name: Ashley Hagler, M.S., M.A.T., Dr. Melissa Armstrong, and Dr. Heather Woodson
- title: A TIME FOR GROWTH AND CHANGE

Pre-2000

2000-2006

2006-2010

2011-2014

2015-Present

- Outdated science facilities
- No hot water
- Chemistry labs leak on library
- New science building with updated facilities
- Duke Energy Grant for biotechnology lab
- AAS in Biotechnology approved
- Accelerate Research in Cell Culture: Techniques Course
- Updated facilities
- Biotechnology lab
- Undergraduate Research and Creativity Symposium
- Over 300 students present at Gaston College Undergraduate Research and Creativity Symposium
- Psychology Department and Chemistry Department work together using Undergraduate Research in the Classroom
- SPARC Professional Development Conference reaches over 500 educators
- STEM Informed English-Course Developed

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