

# Central Florida STEM Alliance

## The LSAMP Scholars Program: A Model for Building Community among Two-Year College STEM Students

VALENCIA COLLEGE

The Central Florida STEM Alliance operates under a grant from The National Science Foundation, HRD-1712683.

# LSAMP Program

## Bridge to the Baccalaureate

To increase the number of URM students completing associate degrees and transferring into baccalaureate degree STEM majors at the university level

# Alliance Goal

- LSAMP I: To double the number of URM transfers
- LSAMP II: To achieve a 25% increase in the number of URM transfers

# Alliance Structure

LSAMP I: Three two-year colleges leveraging a highly recognized articulation agreement with University of Central Florida - DirectConnect

LSAMP II: Three two-year colleges working to establish data-sharing and transfer agreements with four other universities

# Alliance Functioning

LSAMP I: Dedicated STEM advisors providing key student services; college-determined student programs

LSAMP II: Dedicated STEM advisors providing key student services; common and college-determined student programs

# Across Institutions



# Key Elements at Valencia

- Summer STEM Institute
- Local, regional, and national conferences
- LSAMP Scholars Program



# Summer STEM Institute

- Incoming first-year students
- Weeklong experience
- Cohorts of 24 students
- STEM explorations, college readiness
- Group project focused on STEM solutions for sustainable development
- Presentations during college-wide poster walk



# What a Student Told Us

“I would say that I learn[ed] a lot about myself and what I really want to do in life. As the week went on, presentation after presentation and the abundance of knowledge given, I became so aware of what it took to get to where I want to be. Every presenter took away any possible excuses and validated my reasons to continue with my major.”

# What Else We Know

- Highest confidence: taking classes and pursuing a career .
- Strong gains in:
  - Talking about ideas, discoveries, and/or problems
  - Identifying key ideas or concepts
  - Choosing and using tools
  - Understanding articles, reports, discussions, and/or findings

# Student Conferences

- Local – Valencia College Poster Showcase
- Regional – CFSA STEM Summit
- National Conferences – LSMCE, ABRCMS, ERN

# What Students Told Us

“Make it mandatory for all STEM majors to attend at least one summit.”

“Surround yourself with people who keep you motivated. Don't ever think something is too hard or that you can't do it.”

“I met with people I didn't think I would have the opportunity and I received a lot of insight from the workshops.”

# What Else We Know

- 119 students served as 133 delegates
- Maximum conferences by any one student = 5
- CFSA students at 10 conferences under LSAMP I
- STEM Summit - first STEM conference for 66-76% of attendees

# LSAMP Scholars Program

- A cohort model for students participating in various STEM field experiences
- Signature element of a broader framework for deeper student engagement

# Other Program Requirements

- Advisor meetings
- Library research consultation
- Weekly reports
- Poster abstract
- Poster presentation



# Program Model

LSAMP I	LSAMP II
<ul style="list-style-type: none"><li>▪ One semester</li><li>▪ 80 hours of field duties</li><li>▪ 4 cohort meetings</li><li>▪ 1 capstone – LSAMP Showcase</li></ul>	<ul style="list-style-type: none"><li>▪ 2 semesters</li><li>▪ 40 hours of field duties, 40 hours of peer support</li><li>▪ 1 orientation and two cohort meetings/semester</li><li>▪ 2 capstones – LSAMP Showcase; Career Symposium</li></ul>



# Cohort Meetings

- Three-hour Friday meetings
- Workshops facilitated by faculty and staff on topics of resumes, personal statements, abstracts, poster and oral presentations, application packets, external opportunities
- Small group connection time

# LSAMP Showcase

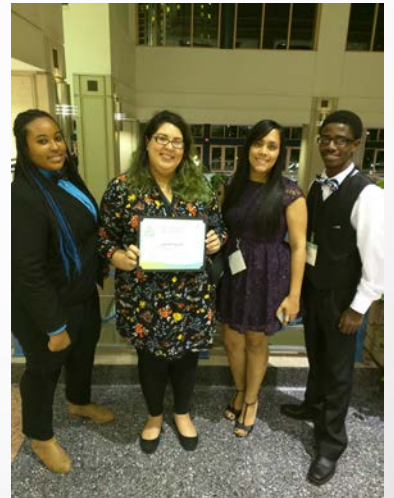
- Presentation venue for scholars to share their work
- Serves as venue for other undergraduate researchers to share their work
- Opportunity for students, faculty, staff, mentors, supervisors, and family members to celebrate the scholars' accomplishments

# What a Student Told Us

“...I’d like to thank you and the LSAMP program for giving me an opportunity to work as a physics research assistant in the Fall semester...I was able to obtain a position as a physics research assistant in the Ultrafast Laser lab (physical science department at UCF) thanks to the experience I gained from participating in the LSAMP Scholars program.”

# What a Student Told Us

“I would like to let you know that I am on my last year at UCF...this summer at the USDA through North Dakota State University, I have secured a guaranteed spot in the PhD biology program...Moreover, I was again accepted to be a poster presenter at the ABRCMS conference this year...Finally I will be applying for NSF GFRP...”



# Scholars to Date

- 9 cohorts of LSAMP Scholars
- Total – 80 students in 86 placements
- Completers – 73 students in 78 placements
  - Research – 48
  - Laboratory – 24
  - Programs – 10
  - Community agency - 4

# Other Outcomes

- NASA Community College Aerospace Scholars Program - 3
- Summer REUs: UF - 2; The OSU – 1; IUPUI – 1; NDSU – 1 (USDA); Stony Brook - 1
- University Research Labs: UCF – 2; UF Apopka – 1

# Other Outcomes

- National STEM Conferences – 20 scholars
- Presentations at National Conferences – 6 scholars, 7 presentations



# Snapshot of Students

Fall 2014 – Summer 2017

Population	Grad Rate	GPA <sub>≥</sub> 2.75
All	30.4%	56.9%
STEM	26.7%	69.9%
LSAMP	46.8%	28.6%
URM	28.6%	56.3%
URM STEM	24.4%	24.4%
LSAMP Scholars	67.6%	89.6%



# Presenter's Information

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