

The Transfer-student Research and Integration Program at the University of Central Florida

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Abstract

The Transfer-student Research and Integration Program (TRIP) prepares life science students for placement in graduate school or the STEM workforce by supporting their professional development and integration into the UCF community. TRIP students also receive a team-based research experience and an opportunity to present at regional conferences. An \$8,000 scholarship distributed over the course of the 2-year program reduces financial barriers and encourages students to spend more time on campus and in a research environment. This poster provides an overview of the challenges facing transfer students, the solutions offered by TRIP, and early outcomes from the first cohort of our National Science Foundation-sponsored program.

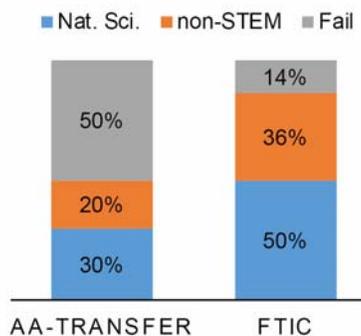


Figure 1. Retention of UCF students in the natural sciences. UCF hosts over 3,000 students majoring in Biology, Biotechnology, or Biomedical Sciences. About half of these students have transferred to UCF with an AA degree from the state college system. Unfortunately, only 30% of transfer students who matriculate into natural science majors at UCF earn a degree in the field, with 20% of students changing majors and 50% of students failing to complete any degree. This rate of attrition is much higher than the loss of UCF First Time in College students.

Transfer Student Challenges

- High financial burden
- Lack of high impact practices
- Lack of social integration within UCF

TRIP Solutions

- Scholarship
- Professional development
- Structured research experience
- UCF and life science community integration

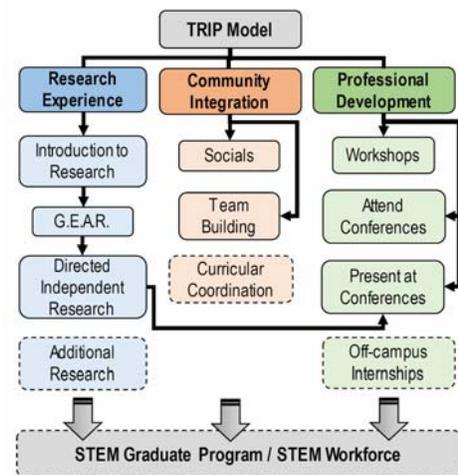


Figure 2. The TRIP model. TRIP is comprised of 3 components: research, community integration, and professional development. The four dotted boxes represent emergent properties of TRIP that are not directly delivered, but are facilitated and represent likely outcomes. Engagement in these practices are expected to increase retention rates, science literacy, critical thinking, faculty mentoring, professional networking, academic performance, STEM diversity, and movement into STEM graduate programs and workforce

Year 1	
<i>Fall (semester A)</i>	
	New Scholar Orientation
	Course - Introduction to Research
	Team Building Exercise - Low Ropes
	Community Social
<i>Spring (semester B)</i>	
	Course - Biology GEAR
	Course - Biotechnology GEAR
	Workshop - Off-campus Research
	Team Building Exercise - High Ropes
	Community Social
	Attend - Showcase of Undrgrad. Research
Year 2	
<i>Fall (semester C)</i>	
	Course - Directed Independent Research
	Workshop - Preparing to Present
	Team Building Exercise - Knights Give Back
	Community Social
<i>Spring (semester D)</i>	
	Course - Independent Research (optional)
	Workshop - Publishing your Research
	Team Building Exercise - High Ropes
	Community Social
	Present - Showcase of Undrgrad. Research
	Present - Florida Undergrad. Research Conference

Table 1. The TRIP calendar. Each semester of TRIP involves aspects of professional development, research practices, and community integration.

Introduction to Research

Goals

- Understand the culture of research
- Preparation for a research experience
- Raise awareness of life science careers
- Preparation for graduate school & the workforce

Representative Activities

- Attend a research seminar
- Find a summer research experience
- Identify the qualifications for a dream job
- Write an individual development plan & resume

Workshops & Integration

Goals

- Professional development
- Community integration
- Build a peer support network

Activities

- UCF-sponsored workshops
- TRIP orientation
- Low and high ropes
- Socials
- Knights Give Back



GEAR

Group Effort Applied Research

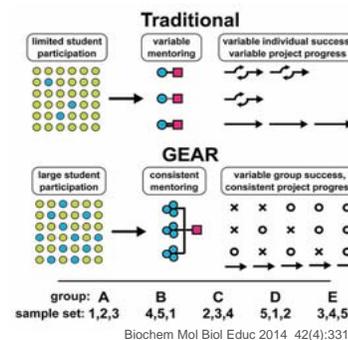


Figure 3. Traditional and GEAR training methods.

Directed Research

Goal

- Prepare a poster of the GEAR results

First Impressions

Keys to Success

- Administrative experience
- An outstanding GTA
- Mitigate transfer shock
- Low stress / high impact practices

Student Enthusiasm

- Peer support
- GEAR
- Additional research experiences

Room for Improvement

- Workshop selection
- Clarify the time commitment for GEAR
- Reach more potential applicants

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