Increasing the Success of Underrepresented STEM PhD Students:

FIU Experiences

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Research Doctoral Attrition

Attrition Rate for 2007-08, 2008-09, 2009-10 Cohorts

First 3 Years

- White: 23% (30)
- Hispanic: 32% (38)
- African American: 23% (10)

Attrition Rate for 2007-08, 2008-09, 2009-10 Cohorts

First 3 Years

- Female: 28% (46)
- Male: 25% (32)
NSF STEM Attrition

Attrition Rate for 2007-08, 2008-09, 2009-10 Cohorts

- First 3 Years
  - White: 22% (11)
  - Hispanic: 31% (13)
  - African American: 12% (2)

- First 3 Years
  - Female: 29% (14)
  - Male: 20% (12)
NSF STEM Years to Degree

YTD Average 3 Years for 2010-11, 2011-12, 2012-13

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<th>White</th>
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YTD 3 Year Average for 2010-11, 2011-12, 2012-13

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AGILE seeks to enrich the graduate student learning experience by enhancing students’ *cognitive, interpersonal, and intrapersonal* skills through a series of self-paced, structured, and accessible interdisciplinary workshops, dialogues, and experiential opportunities, which include:

- Integrative learning through interdisciplinary dialogues and community meetings with peers and mentors
- Interpersonal skill enhancement through professional development, leadership, and communication seminars
- Intrapersonal skill enrichment through the integration of scholarly work and service or community engagement efforts
Integration vs. Unity

a) Each petal is an integrated part of the whole and contributes synergistically to the beauty of the flower.

b) Petals are unified together with the help of a rubber band, but the synergistic contribution of the petals is lost.
Integrative Learning

Intrapersonal
- Will-to-do
- Self-directed
- Vision
- Passion
- Ethical Behavior

Interpersonal
- Connect
- Interact
- Communicate
- Relate
- Contextualize

Cognitive
- Critical Thinking
- In-depth Knowledge
- Analytical/Rational
- Objective Reality

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What if We Have One Without the Other?

*Will-to-do* without *interpersonal skills* is destructive, and without *knowledge* is chaotic.

*Interpersonal skill* without *knowledge* is indiscriminate, if not blind, and without *will-to-do* is inert, effusive, but not productive.

*Knowledge* without *interpersonal skills* is egoistic and manipulative, without *will-to-do* it is impotent.