Know
• Students’ backgrounds
• Students’ goals and ambitions

Understand
• Knowledge of students background controls their future
• Students struggles may limit their knowledge and ability to acquire knowledge

Relate
Establish a relationship between current knowledge and expected outcomes

Apply
Combine all of the above
From Root to Fruit

KURA connects an individual’s current background to required future information or data.

**Root:** (Prerequisites)
Foundation of information that can be relied upon to

**Tree:**
Conduit for transferring data and information

**Fruit:** (Goals or Objectives)
New information an individual is expected to know, understand, relate or apply.
Creating Mustangs
Who Attends Community College

This information represents students’ roots.
Changing Face of Students
Ghetto on the Hill

Pulaski Technical College is represented in red
Institution has been referred to as “Ghetto on the Hill?!"
Ready or Not

Students are not academically ready for college

Remedial courses slow Student degree Progression

STEM students may delay graduation by 2 years
Faculty
Diversity in Instructional Staff

16% of students entering CC were white. Disproportional percent of minority faculty to students. Faculty does not reflect student demographics.
Number of African Am. From 430,000 (1976) 11.2% to 734,000 12.5 % in (2000) 
Diversity needs to increase for African Americans and other students
The traditional students accomplish all of the academics above.
Keeping Hope Alive

- Community College faculty must keep students hopeful with the above reality.
- Faculty give hope through potential $m \times g \times h$.
- Elevating Hope = $h$; neglecting the mass = $m$ that hinders success; providing a constant positive force = $g$. 
Diverse Disabilities

Disabilities among community college students

- Mental illness/depression: 28%
- Attention deficit disorder (ADD): 22%
- Other: 16%
- Orthopedic or mobility impairment: 8%
- Hearing impairment: 7%
- Specific learning disability or dyslexia: 6%
- Blindness or visual impairment: 4%
- Health impairment or problem: 3%
- Brain injury: 2%
- Developmental disability: 2%
- Speech: 0.3%
Challenges of Faculty

Retention-
Retain students with diverse roots
Single parent, Employment, disabilities, financial struggles etc

Remediation-
Assist students through developmental courses
Many community college students struggle with math a primary STEM requirement

Compensation-
No Additional Compensation
NO monetary compensation as four year institutions
No tenure
Dedication and Passion is the only reward

Demoralization
Administration

Leading the Pack through Changing Times
The Value of Pell

Total cost of attendance covered by maximum Pell Grant:
Public two-year institutions

- 1979-80: 99%
- 2010-11: 62%
- 2013-14: 52%
Administration

Budget
Must focus on growing number of students receiving student loans

Retention
Student loan default rates and retention are growing problems

Advising
Advisors are limited in STEM degree requirements

Grants
Grants offices are limited in ability to apply for NASA STEM grants

Institutional Research-No Research programs
Bridging the Gap

PTC is bridging the STEM gap to four year institutions
Completion Pathways

Students earning an associate degree as a first credential who subsequently earned a bachelor’s degree

- Overall: 60.9%
- 20 years of age and under: 41.0%
- >20–24 years of age: 43.3%
- Over 24 years of age: 31.4%
- Women: 40.8%
- Men: 42.1%
STEM Success

Science and engineering degrees awarded by gender, 2000–12
PTC is the only CC in Arkansas Actively involved in Space Grant activities
22 Other Institutions
Grants
Curriculum
Student Engagement
Faculty Engagement
Community
College
Liaison
Research Proposal
Opportunities
STEM Pipeline Curriculum Development
PTC STEM Mustangs

Spring 2016 - 1st group of PTC students attended Space Grant Meeting
Thanks to:
Dr. Tillman at Arkansas State University (ASU) for the Balloon Sat photograph
(Arkansas and Mississippi River are shown in this picture)

NASA
Dr. Keith Hudson – Arkansas Space Grant Consortium/NASA EPSCoR
1. AACC membership database, January 2016.
3. AACC membership database, 2016 [AACC analysis].
5. NCES. (2015). 2011–12 National Postsecondary Student Aid Study (NPSAS:12) [AACC analysis].
Creating A Winning TEAM at Pulaski Technical College
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