

Building Leaders through Empowerment

The Students' Perspective

Our Perspective

First-hand Experience



Pathways to STEM Careers

- **Andrea Alvarado**

Program Director

- **Veronica Moreno**

Peer Mentor

Mathematics Major

- **Brandon J. Hernandez**

Intern

Computer Engineering Major

- **Dr. Sadegh Davari**

Principal Investigator

Professor of Computer Science

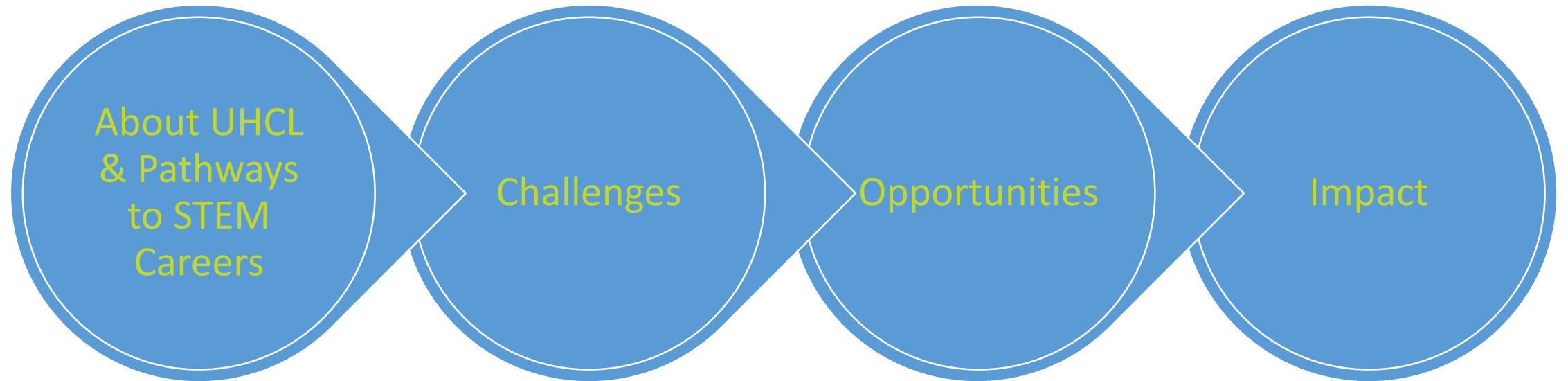
Department Chair of Computing Sciences

- **Dr. Kathryn Matthew**

Co-Principal Investigator

Associate Vice President of Academic Affairs

Agenda



Learning Outcomes

**At the end
of this
session,
participants
will:**

Know more about the importance of comprehensive and continuous training

Acquire student experiences on improving an existing program or organization

Know more about identifying opportunities to take on leadership roles in their own programs and organizations

UHCL

Overview



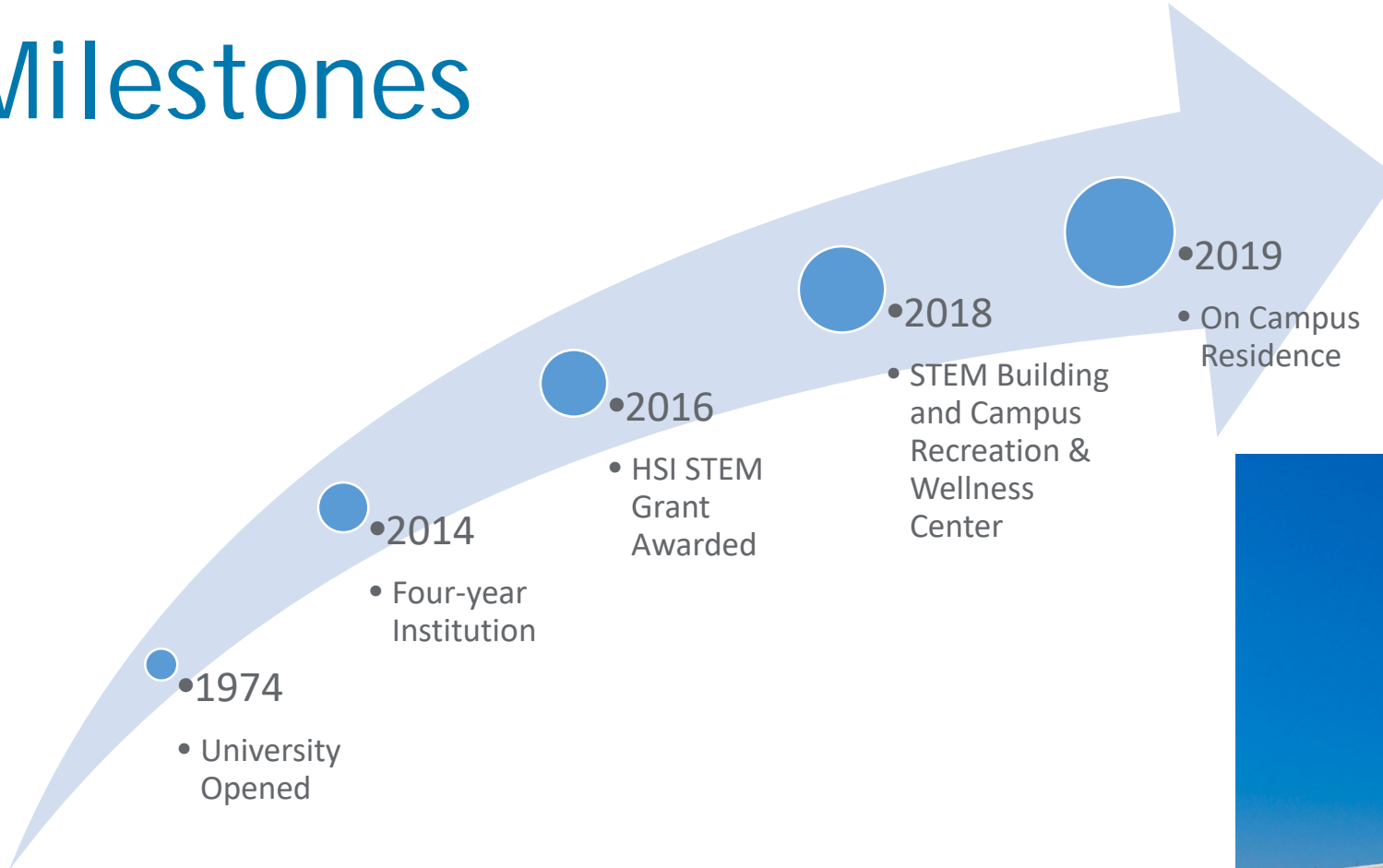
Location



Southeast Metropolitan Area of Houston, Texas

- Part of the University of Houston System
- Wildlife and nature preserve
- Strategic partnerships with local industries
 - Aerospace
 - Healthcare
 - Research
 - Technology

Milestones



Student Population

What does our university look like?

Undergraduate Data

- 40% Hispanic / Latino
 - College of Education: 50% Hispanic / Latino
 - College of Science and Engineering: 35% Hispanic / Latino
- 32% are First-Generation
- Enrollment
 - Full time: 49%
 - Part time: 51%
- Average Age: 27
 - Most students are juniors or seniors



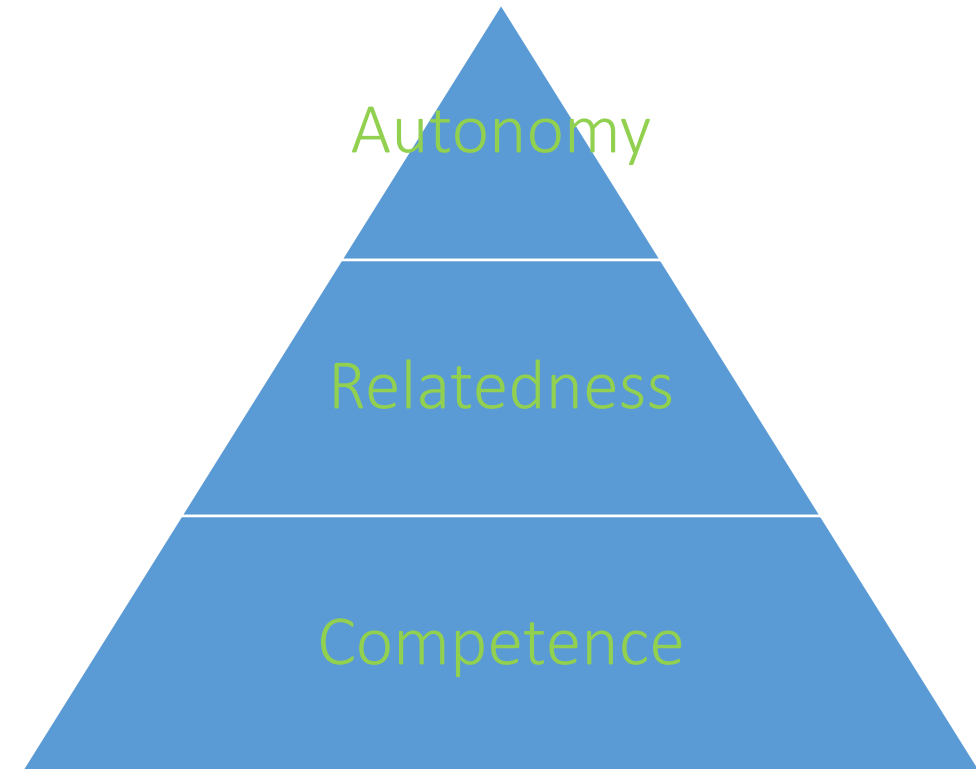
PATHWAYS TO STEM CAREERS

Goals

- Attract and retain Hispanic and/or low-income students in STEM and STEM education
- Develop and enhance support services and strategies to increase student success

Rooted in Research Theories

- Self-Determination Theory
- Learning Communities



Paid Student Opportunities

Peer Mentors

- Mentor students
 - STEM & STEM Education
 - Network with other students
- Facilitate meetings
- Lead STEM-related activities
- Promote PSC at university events

Research Assistants

- Support faculty research
- Work in lab with faculty mentor
- Present findings at local and national conferences
- Publish and co-author research articles and textbooks
- Meet with peer mentors

Interns

- STEM
 - Work at local companies
- STEM Education
 - Student teach within local school districts
- Gain hands-on experience in field
- Obtain industry mentor
- Meet with peer mentors

OPPORTUNITIES

How we are helping our students?



Major Themes



Laying a good
foundation



Empowerment



Building connections

FOUNDATION



Foundation

Training

- One-time training
 - NASPA Certified Peer Educator Training
- Continuous
 - Self-reflections
 - Professional development

Expectations

- Alignment with job descriptions
- Communication

Structure

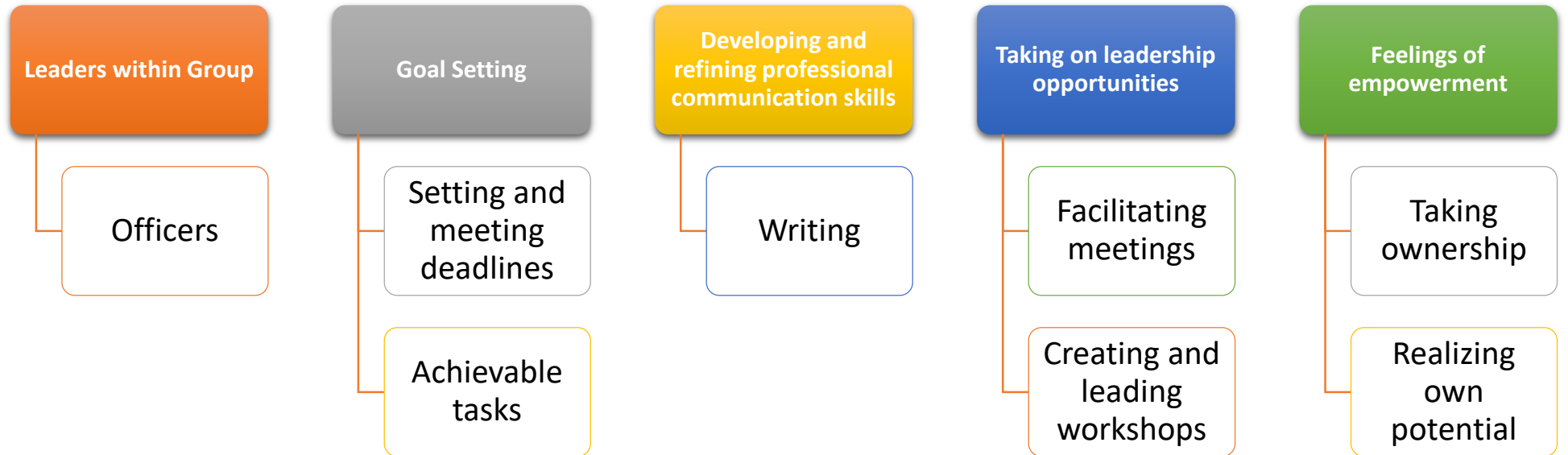
- Program Assistant
- Technical Support
- Officer team



EMPOWERMENT



Empowerment



CONNECTIONS



Connections



Other students

Approachability
Confidence/meeting friends in
your discipline



Networking

Good support system for
academics
Study groups across disciplines



On-campus resources

Collaborating with other
departments and organizations



One-to-one Check-In

Obstacles and potential for
growth
Discuss graduation and class
schedule
Career goals
Finding other mentors –
academically and professionally

IMPACT



JAZMINE

- Peer Mentor to Research Assistant
- Leadership
- Confidence both in and outside the classroom
- Currently pursuing PhD in Biomedical Engineering at Southern Illinois University
 - Full Scholarship awarded



BRANDON



OPPORTUNITY

LEADERSHIP

PROFESSIONAL
DEVELOPMENT

CONFIDENCE

VERONICA

How did PSC shape me to become a Leader?





Questions?

How can we help you?

CONNECT WITH US!



Website

Visit our website

<https://www.uhcl.edu/science-engineering/centers-initiatives/pathways/>



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