Recruiting, Engaging, and Retaining Underrepresented and First Generation College Students

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CCA Overview

- **Annual Enrollment:** 12,780
- Full-time = 17%
- Part-time = 83%
- Male = 43%
- Female = 57%

- **Diversity**
- Five continents and more than 60 countries
  - African American = 26%
  - American Indian = 2%
  - Asian = 7%
  - Hispanic/Latino = 18%
  - White/Non-Hispanic = 41%

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CCA Overview

- **Faculty**
- • Full-Time: 48
  - • Adjunct: 345
  - • Student to Faculty Ratio: 22:1
- Student to Full Time Faculty Ratio: 190:1

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Programs: 2009-2012

- 3 Balloonsat Flights
- 2 Robotics Teams
- 1 HASP Flight
- 1 micro-Gravity Flight
- 3 Symposium Presentations

Not Good Enough

- Missing students who might be interested
- Difficult to maintain engagement throughout time at CCA
- Transfer students not always successful
- Faculty workload

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Not Good Enough, cont.

- Complicated lives: difficult to find time to meet and work with team

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Recruitment

- Contact students in gateway courses
- Contact students who have self-identified as engineering/science
- Ask faculty to identify and recruit candidates
- Develop the student grapevine

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Engagement

- Hands on programs
- Personal contact
  - Achievement coach
  - Academic Advisor
  - Faculty
- Form Cohorts

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Retention

- What does retention look like for CC student?
  - Successful transfer
    - Academic preparation
    - "Life" preparation
    - Not be behind peers who started at transfer institution
  - Continue with Space Grant after transfer
    - Two-sided mentoring

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Experimental Design

- Teach version of "Gateway to Space"
- 28 students in 2 years
- 7 Symposium Presentations

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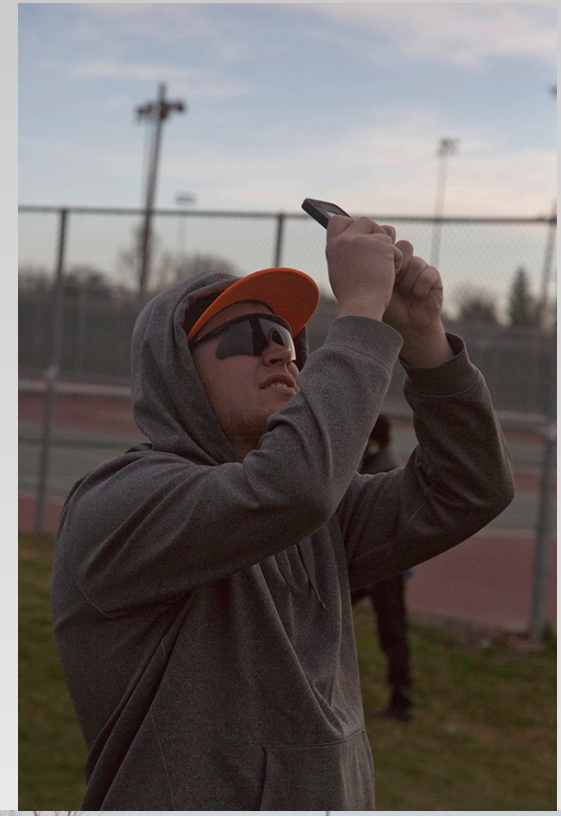

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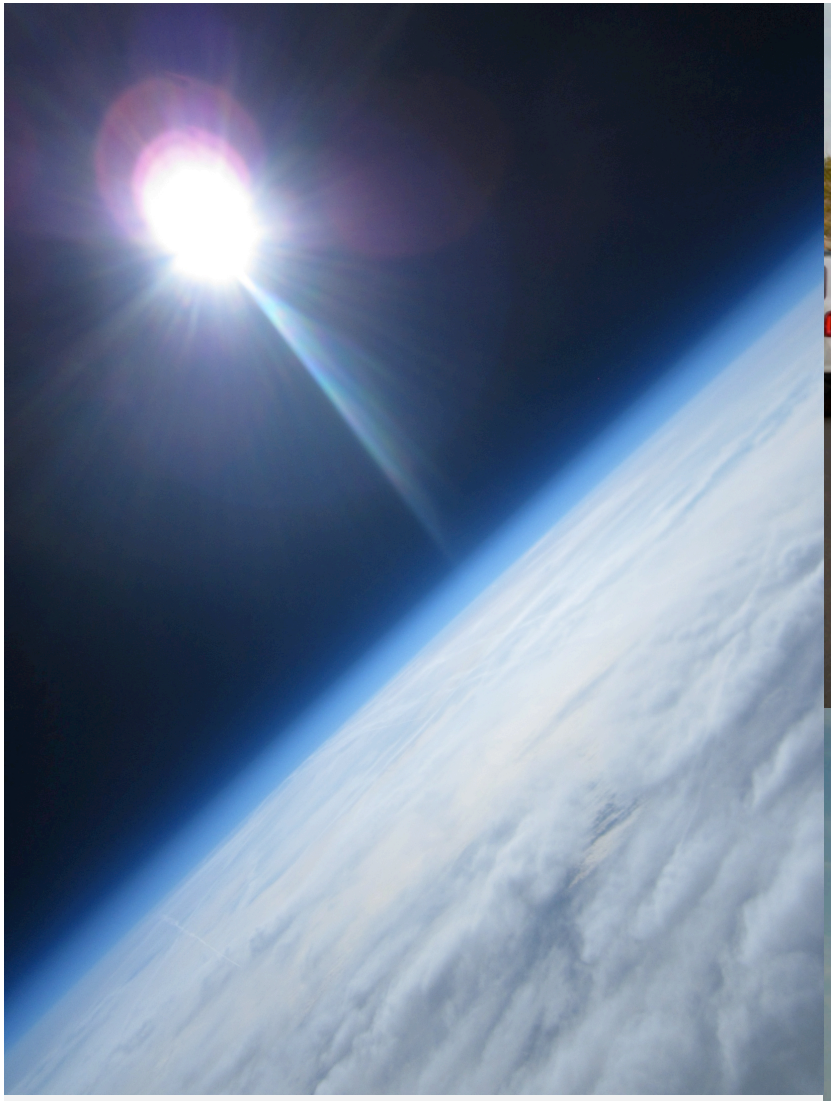

CCA Space Grant Scholars

- Target students at beginning of college career
- Scholarships for eligible students
- 2 intro to engineering workshops
- Required coaching and advising
- Try to maintain engagement for 4+ semesters

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Community College of Aurora Pre-Engineering Pipeline

Early Engagement - Semester 1

Goal: Identify and advise prospective pre-engineering students early in their academic career.

Activities: One-on-one advising, funding of early coursework, and engineering workshops to engage students in activities related to engineering.

Cost: $550/student for early coursework (MAT121, MAT122, CHE101 or CHE111) funding and supplies for workshops;

Current Funding: Colorado Space Grant Consortium, NASA, Course Grant, currently $9,000 per year.

Students: Fall 2014 ten students involved, eight funded.

Continuing Engagement I – Semester 2

Goal: Advise and keep pre-engineering students actively engaged in engineering activities as they progress through their coursework.

Activities: One-on-one advising, Robotics Challenge special topics course currently being developed.

Cost: Funding of 1 credit Robotics course for 8-10 students, supplies for robots, and travel costs for Robot Challenge competition. $550/student

Current Funding: Colorado Space Grant Consortium, NASA, Course Grant currently $9000 per year.

Plans to apply for CCA Innovation Grant.

Students: Spring 2015 – unknown at this time. Target 1 or 2 teams of four.

Recruitment and addition of new students.

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Community College of Aurora Pre-Engineering Pipeline

Continuing Engagement II – Semester 3

Goal: Advise and keep pre-engineering students actively engaged in engineering activities as they progress through their coursework.

Activities: One-on-one advising, one credit special topics course to emphasize programming skills needed for engineering studies (currently being developed), and Peer Instructor Workshops.

Cost: $550/student for special topics course and supplies for workshops;

Current Funding: Unknown at this time.

Students: Fall 2015 – unknown at this time.

Recruitment and addition of new students.

Engineering Capstone – Semester 4

Goal: Preparation of students for transfer and completion of Project Design coursework.

Activities: One-on-one advising and EGG151 Experimental Design.

Cost: Funding of 2 credit Experimental Design course for 12-16 students, supplies for student projects. $550/student

Current Funding: Colorado Space Grant Consortium, NASA, Base Grant currently $10,000 per year.

Students: Spring 2013 sixteen students & Spring 2014 twelve students completed EGG151 Experimental Design course.

Spring 2015 – unknown at this time.

Recruitment and addition of new students.

TRANSFER

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Personnel

- Phebe Lassiter
- Tara Croom-Sanchez
- Tom Dillon
- Martha Jackson-Carter
- Bernadette Garcia
- Victor Vialpando
- Bea Salazar
- Brian Sanders
- Deb Farley
- Chris Koehler
- (Bill Shelton)

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