NAE Workshop on Sharing Exemplary Admissions Practices that Promote Diversity in Engineering

Diane Rover and Sriram Sundararajan

Iowa State University

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Iowa State University Admissions Policies and Practices

Regent Admission Index

Holistic Review and 'Open option'

Admissions Partnership Program

Stackable Scholarships

admissions.iastate.edu

engineering.iastate.edu

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State of Iowa Board of Regents Schools

Regent Admission Index

- Unified minimum criteria for all three regents universities

RAI FORMULA

ACT composite (or converted SAT) score x 3

+ Cumulative GPA x 30

+ Number of years of high school core courses x 5

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RAI (Regent Admission Index)

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Engineering Specific at Iowa State

- RAI + 2 years of foreign language

- Open 'Liberal Arts and Science' track for students who do not meet the RAI

  - Pathway to taking basic program and transitioning to engineering

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Admissions Partnership Program

- Guaranteed admission to Iowa State provided requirements are met

- Personal academic advising and mentoring

- Degree planning to ensure timely graduation

- Real-time degree audit information

Iowa State University

Community Colleges
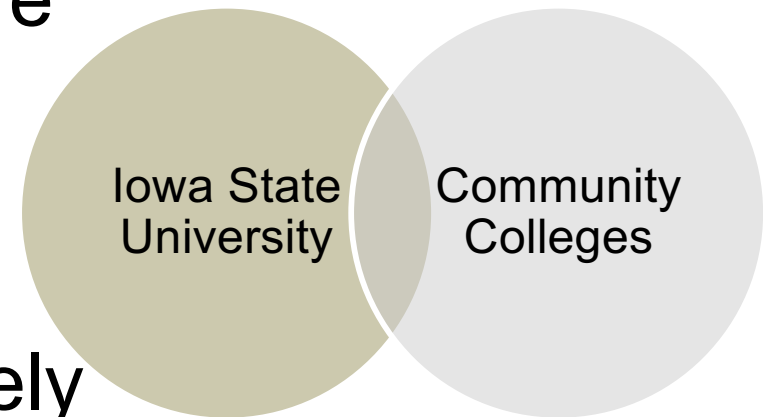
Engineering Scholarships

- Stackable onto central packages
- Merit based qualifications
- Rated on two essay questions
- College wide faculty and admissions staff review of applications

Scholarship Yield

- Yields have increased from 30% in 2018 to 61% in 2021

- Scholarship Cohorts
  - 2018: 14% women and 6% multicultural students
  - 2021: 27% women and 11% multicultural students

Student Success Structures

- Learning Communities (LCs)
- Academic Program for EXcellence for Engineers (APEX-E)
  - 8 week summer program
  - Coursework + Research

Student Success

45%
Continued research engagement

95%
participation in LCs

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Iowa State University Partnerships and Practices

NSF S-STEM and RED Programs

WiSE Program

Student Pathways & Experiences

Research & Evaluation

ecsel.ece.iastate.edu   *engineering.iastate.edu*   *wise.iastate.edu*

NSF S-STEM Grant in ECE Department

- ECSEL (Electrical, Computer/Cyber, Software Engineers as Leaders) funded by NSF Scholarships in STEM (S-STEM)

- Multi-institutional collaborative effort among the department and two community colleges

- Scholarships for diverse students in ECSE majors (or preparing to transfer)
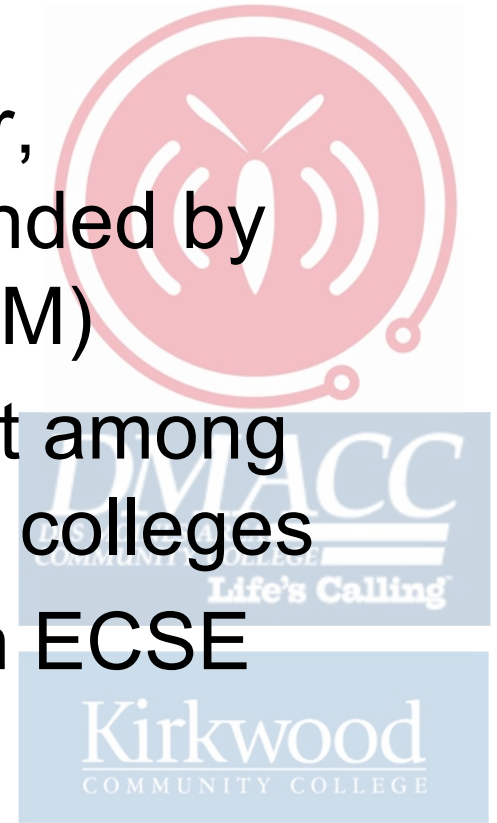
Engineering Scholarships

ECSEL/IOWA STATE

Electrical, Computer, and Software Engineers as Leaders

Renewable $8000/academic year scholarships!

Scholarship Requirements
- U.S. Citizen
- Enrolled in Electrical, Computer or Software Engineering at Iowa State
- Demonstrated financial need through FAFSA

ECSEL student experience through WiSE and ECE Department
- Learning communities
- Leadership development
- Professional development
- Academic advising and support
- Mentoring
- Co-curricular and extracurricular activities

For more information and to complete application: https://ecsel.ece.iastate.edu/students/interested-students/

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Partnership with ISU WiSE Program

- Women in Science and Engineering (WiSE) programming and practices as models of inclusion and equity

- Leadership development
  - Help students from marginalized social groups understand underlying structural and cultural inequities in organizations

Partnership with ISU WiSE Program

Our Mission: **Enhance STEM experiences for women by advocating for diversity and inclusion through opportunities, resources, and support.**

Goal 1 : **Prepare global citizens for 21st century careers through experiential learning and leadership opportunities.**

Goal 2: **Enhance and cultivate environments where women in STEM are safe, feel welcomed, supported, included, and valued.**

Goal 3: **Provide opportunities, support, and intervention to ensure each individual reaches their potential.**

We value:

- people as individuals;
- integrity and accountability;
- inclusion;
- collaboration;
- continuous learning;
- leadership; and
- excellence in all we do.

BE BOLD

DREAM BIG

LEAD THE CHANGE

Student Pathways and Experiences

- Recruitment of scholars along different pathways into majors

- Community of scholars

- Support and mentoring

- Professional and leadership development

Conference Experience

- AfroTech
- Grace Hopper Celebration
- IEEE WIE Leadership
- Richard Tapia Celebration
- SACNAS Diversity in STEM
- SHPE Convention
- Women in Cybersecurity

ISU ECpE
@ISU_ECpE

Following ⌄

"I never thought I would be able to see over 100 women in tech in a room, let alone 18,000," Full story: goo.gl/2xkTvD

WELCOME
GRACE HOPPER CELEBRATION

ECpE Women Inspired By Grace Hopper Celebration

Read More

1:26 PM - 11 Dec 2017

Engineering Identity Research

- R. Friedensen, E. Doran, and S. Rodriguez, "**Documenting Engineering Identity: Electrical and Computer Engineering Departmental Documents and Student Identity**," Proc. ASEE Annual Conference, 2018.

- S.L. Rodriguez, K. Cunningham, R. Estes, and M. Sissel, "**SSTEM Successes and Challenges: Engineering Identity Development for Women in Computer, Electrical, and Software Engineering**," American Educational Research Association Annual Meeting, 2018.

- S. L. Rodriguez, K. A. Hensen, and M. L. Espino, "**Promoting STEM Identity Development in Community Colleges & Across the Transfer Process**," Journal of Applied Research in the Community College, 26(2), 2019.

Evaluation

- ## Enrollment progress

  - D. T. Rover, M. Mina, A. R. Herron-Martinez, S. L. Rodriguez, M. L. Espino and B. D. Le, **"Improving the Student Experience to Broaden Participation in Electrical, Computer and Software Engineering**," ASEE/IEEE Frontiers in Education Conference, 2020.

  - Frontiers in Education Conference Best Diversity Paper Award

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Learn more at
engineering.iastate.edu