## IOWA STATE UNIVERSITY





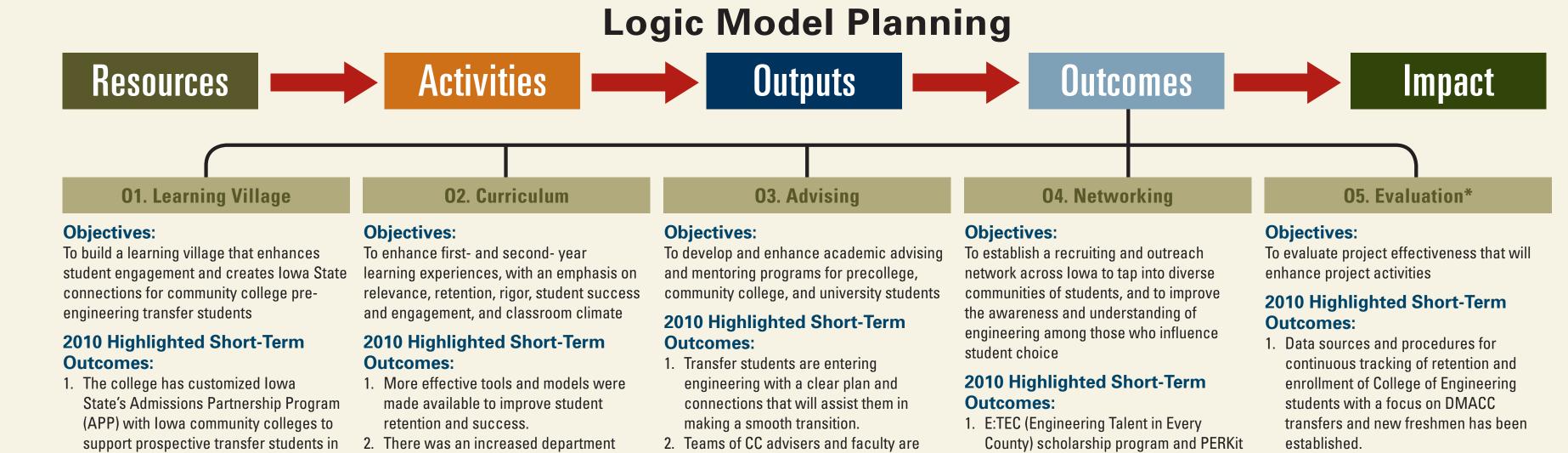
## **NATIONAL SCIENCE FOUNDATION** STEM Talent Expansion Program (STEP)

# STEM Student Enrollment and Engagement through Connections

College of Engineering • College of Human Sciences • College of Liberal Arts and Sciences • www.eng.iastate.edu/seec

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Increase the number of engineering graduates at Iowa State by 100 per year to approximately 900 graduates annually. Included with this goal are increases in the percentages of women and minority graduates in engineering at Iowa State and the number of pre-engineering students at Des Moines Area Community College.



Continue to build a culture that embraces transfer student programming through continued professional and program development Leverage learning

community best practices to retain students at the second- and thirdyear levels, which will ultimately contribute to higher graduation rates

Recruiting and retaining women to make up 20% of engineering graduates

Logistical and systemic obstacles remain in reaching formal and informal educators who can create awareness of engineering and influence young people



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engineering, called E-APP. engaged in professional development awareness and activities in relation to activities aimed at dissemination of 2. The Transfer Peer Mentor Program curriculum for their transfer student includes a web-based professional constituency. student success reports, best practices network which promotes multiple points Targeted program offerings that address curriculum, and new resources. specific needs were available. of engagement for community college students. Transfer peer mentors serve as leaders in E2020 (S-STEM) transfer cohort seminars. 3. All Iowa State engineering departments have learning communities, and some have started transfer learning

(Personal Engineering Recruitment Kit) Longitudinal qualitative and quantitative resources were dispersed and training assessment and evaluation activities are was initiated. in place. 2. Partnership and network development was created with NSF S-STEM project, academic departments, Program for Led by Iowa State University Research Women in Science and Engineering, Institute for Studies in Education (RISE) Iowa State Admissions, industrial boards, and alumni networks.



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## Building a Learning Village

#### Impact: >2,000 students

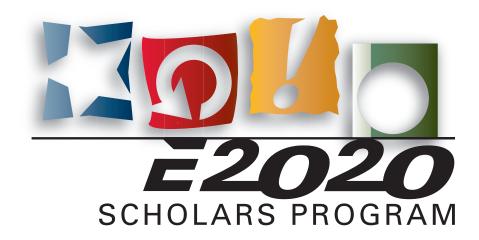
communities.

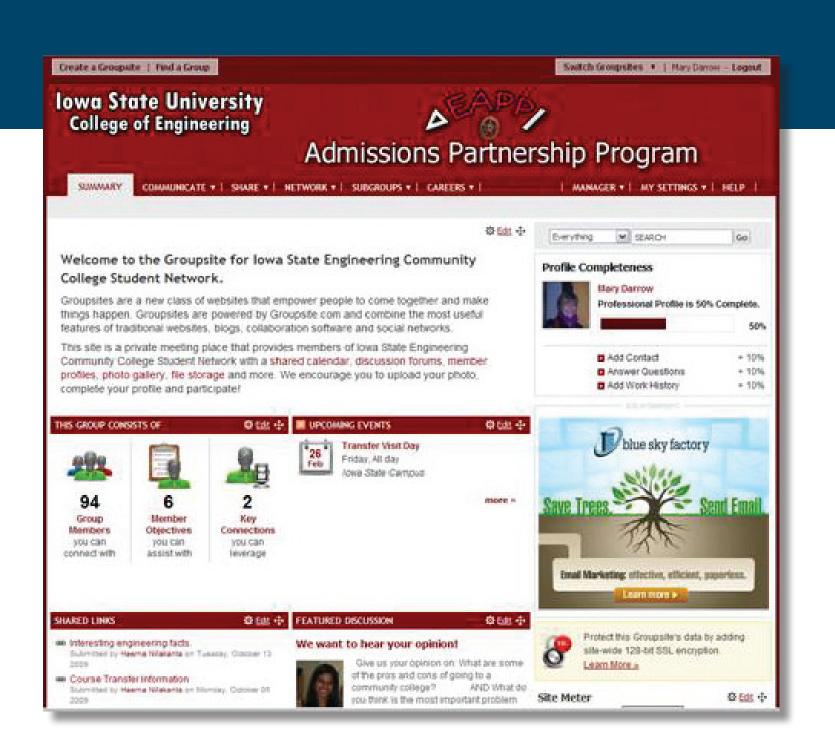
- Transfer students are supported prior to entering lowa State through the Engineering Admissions Partnership Program (E-APP), which includes curriculum planning and advising by Iowa State engineering advisers, peer mentoring, and access to the E-APP webbased professional network.
- E:TEC and E2020 engineering scholarships are available.
- DMACC has created a pre-engineering learning community, including a new engineering orientation course.
- Data analysis and dissemination of transfer students' academic performance and transfer success is ongoing and informs transfer advising and programming.

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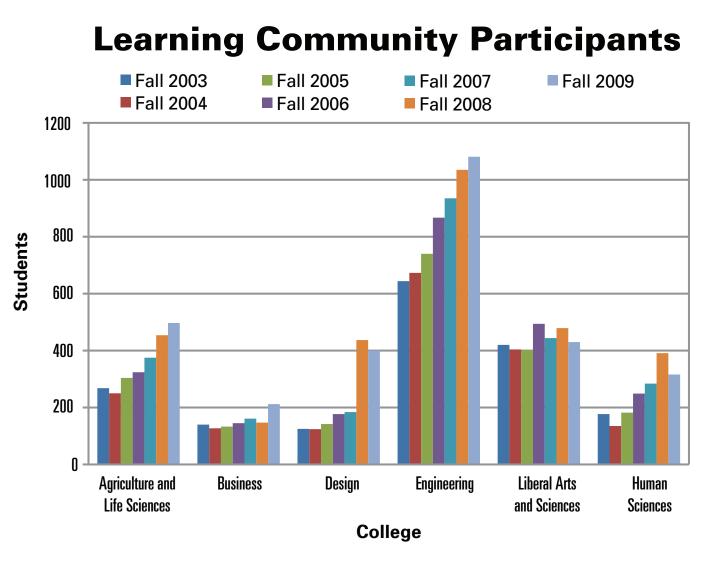


E-APP hosts a career fair event, which is one of many activities for transfer students. Transfer peer mentors host or assist with these opportunities.





Transfer peer mentors manage the E-APP web-based professional network.



All lowa State engineering departments have learning communities, and DMACC has established a pre-engineering learning community.



A joint transfer advising and recruiting event, SEECing Connections, was held for lowa State and DMACC advisers, recruiters, and other interested parties.

Partnerships continue to develop that leverage recruitment and retention resources

### Impact: >5,000 prospective students/parents

lowa State's College of Engineering recruiting materials have been redesigned to incorporate new messaging.

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Integrating New Messaging

DMACC has implemented a comprehensive pre-engineering communication plan.

## **SEEC Team Members**

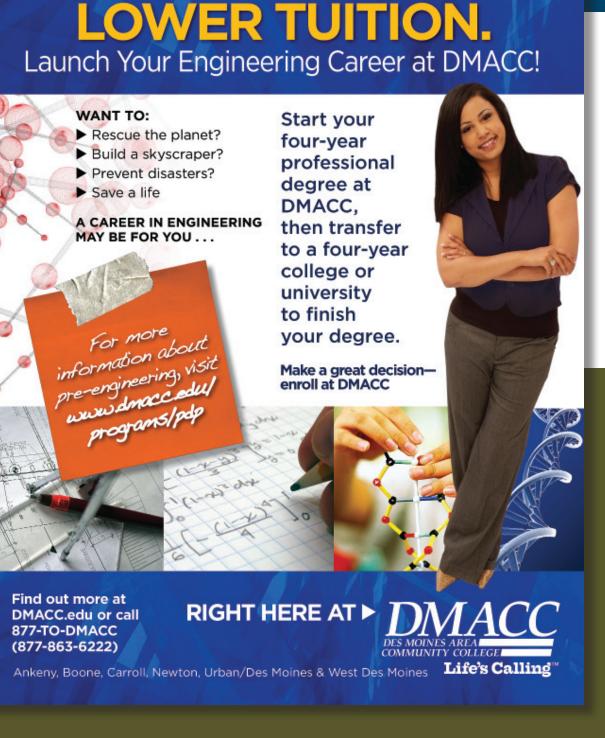
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HIGHER EDUCATION.

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