SEEC Data Brief

ISSN 2153-3970 (print) ISSN 2153-3989 (online)

Student Enrollment and Engagement through Connections

IOWA STATE UNIVERSITY





Issue 2, November 2010

Engineering Admissions Partnership Program (E-APP)

The Engineering Admissions Partnership Program (E-APP) was created in 2008 as a SEEC project initiative. E-APP's goal is to increase community college students' engagement prior to coming to lowa State and thus increase their retention and graduation rates. Preengineering community college students who sign up for lowa State's Admissions Partnership Program (APP) are invited to join the E-APP Learning Community. This virtual learning community connects students to lowa State's College of Engineering faculty, staff, and students through multiple channels.

One of these channels is the E-APP online professional network. This site is moderated by transfer peer mentors—former community college students who transferred into engineering at Iowa State. Here transfer students connect with each other prior to transfer, as well as meet Iowa State engineering students, faculty, and staff. Peer mentors offer advice based on experience, answer questions, post information about events, and guide discussions. Students are also apprised of oncampus speakers and other general engineering events through the online professional network. As Andrew Owens, a sophomore E-APP Aerospace Engineering transfer student from Iowa Central Community College, explained, "The on-line group was a good way to keep up with Iowa State events that were relevant to me."

E-APP also hosts events throughout the year to bring transfer students to campus. Each spring and fall E-APP students have the opportunity to attend a Transfer Students Career Fair event. And each spring they are

invited to attend a Transfer Student event during Iowa State's VEISHEA celebration. Engineering peer mentors, faculty, and staff are on hand at these and other events to meet with transfer students and answer their questions. In the coming year, incoming E-APP students will be invited to transition lunches to help them increase their connections on campus and in their departments.

E-APP students are assigned an Iowa State engineering adviser who can help them choose the courses they will need for their transfer. Mitchel Steffes, a junior E-APP Agricultural and Biosystems Engineering transfer student from Des Moines Area Community College, declared, "E-APP helped me get ready for Iowa State by getting an ISU adviser, student ID card, and knowing that all my classes were going to transfer."

In the 2009-2010 academic year 142 students participated in the program. All of these students were assigned an academic adviser and transfer peer mentor. Eighty of them participated in the E-APP online professional network in order to connect with Iowa State transfer peer mentors and learn more about engineering and the transfer process. Eighty-five E-APP students attended one or more events at Iowa State during the academic year. Forty-two of these students registered as fulltime engineering students in the fall 2009, spring 2010, or summer 2010 semesters.

"The SEEC project has allowed us to experiment with new strategies for increasing community college engagement," Mary Darrow, Transfer and E-APP Coordinator, stated. "The online professional network pilot has been a learning experience for our E-APP students and for the College of Engineering faculty, staff, and student mentors. We hope that our students will not only get connected to lowa State through this network, but will also gain valuable online networking skills that will advance their careers in the future. We will continue to experiment with and evaluate social and professional networking media through this program in order to increase transfer student engagement."

About the SEEC project

The Student Enrollment and Engagement through Connections (SEEC) project is a collaboration between lowa State University and Des Moines Area Community College (DMACC) funded by the National Science Foundation's STEM Talent Expansion Program. The goal of the project is to increase the number of engineering graduates at Iowa State University by approximately 100 per year. The percentage of women and minority graduates will approach 20% and 10%, respectively.

To that end, E-APP was created in pursuit of the project's Advising Team's primary objective: develop and enhance academic advising and mentoring programs for precollege, community college, and university students. It is rooted in Iowa State's Admissions Partnership Program (APP) and provides future engineering transfer students the benefits of this program as well as engineering-specific opportunities. In the spring of 2010 E-APP was approved as a formal Iowa State Learning Community. This fulfilled the SEEC Learning Village Team's primary objective: building a learning village that enhances student connections and creates Iowa State connections for community college pre-engineering transfer students.



Transfer students enjoy lunch with Iowa State engineering faculty, staff, and peer mentors before attending the Career Fair.

SEEC TEAM

Principal Investigators

Diane Rover

Professor, Electrical and Computer Engineering lowa State University Email: drover@iastate.edu

Harry McMaken

Professor, Engineering and Math Des Moines Area Community College Email: hlmcmaken@dmacc.edu

Co-Principal Investigators

Monica Bruning

Senior Research Associate and Lecturer, Educational Leadership and Policy Studies Iowa State University Email: mbruning@iastate.edu

Frankie Santos Laanan

Interim Director, Center for Excellence in Science, Mathematics and Engineering Education Associate Professor, Educational Leadership and Policy Studies Iowa State University Email:laanan@iastate.edu

Steven Mickelson

Professor and Chair, Agricultural and Biosystems Engineering Iowa State University Email: estaben@iastate.edu

Mack C. Shelley

University Professor Political Science and Statistics Iowa State University Email: mshelley@iastate.edu

Senior Personnel

Mary Darrow

Transfer and E-APP Coordinator College of Engineering Iowa State University

Andrew Ryder

Research and Evaluation Scientist Research Institute for Studies in Education (RISE) Iowa State University

Karen Zunkel

Program Manager Program for Women in Science and Engineering Iowa State University

Other Personnel

Virginia Anderson

Information Assurance Center Electrical and Computer Engineering Iowa State University

Sandy Jennings-Hammond

Communications Consultant Iowa State University

Other Executive Team Members

Joel Johnson

Program Manager Engineering Academic/ Student Affairs Iowa State University

Marcia Laugerman

Graduate Assistant-Research Agricultural and Biosystems Engineering Iowa State University

Carlos Lopez

Graduate Assistant-Research Educational Leadership and Policy Studies Iowa State University

http://www.eng.iastate.edu/seec



The work reported herein is supported by the National Science Foundation, Science, Technology, Engineering and Mathematics Talent Expansion Program (STEP), Directorate for Education and Human Resources, Division of Undergraduate Education, Grant No. 0653236.

The SEEC Data Brief is published by the College of Engineering in collaboration with the Office of Community College Research & Policy (OCCRP) at Iowa State University. Established in 2004, the mission of OCCRP is to articulate and analyze the issues affecting policy and practice by conducting rigorous research which impacts students, faculty, administrators, and policymakers.

Diane Rover, Principal Investigator

Electrical and Computer Engineering 333 Durham Hall Iowa State University Ames, IA 50011 Office: 515.294.2819

E-mail: drover@iastate.edu www.engineering.iastate.edu/~drover/

Frankie Santos Laanan, Co-PI and Director

Office of Community College Research and Policy Educational Leadership & Policy Studies Iowa State University N243 Lagomarcino Hall Ames, IA 50011

Office: 515.294.7292 E-mail: laanan@iastate.edu www.cclp.hs.iastate.edu/occrp/

Collaboration between



