



Engineering is a difficult discipline, and many students struggle to keep up with their courses while acclimating to life on a college campus. According to the American Society for Engineering Education, two of the key reasons students leave engineering are the challenging nature of the coursework and a lack of a sense of belonging in engineering. In 2007, the College of Engineering addressed this issue by instituting the Freshman Engineering Program, or FEP.

FEP builds a sense of community and instills confidence in engineering students in several ways. All new freshmen are part of FEP. They take a common set of classes, laying the groundwork for a successful engineering education before they declare a major in their second semester. Many new engineering students arrive at the university with limited knowledge about the different engineering disciplines, so FEP students learn about each of the different engineering fields and choose a major that is right for them as part of a two-semester Introduction to Engineering course sequence.

FEP also offers orientation, peer mentoring, academic advising, and basic academic success coaching. The Freshman Engineering Center provides a comfortable space for students to work together, with a computer lab, hands on learning lab, and areas for study groups and mentoring. FEP also provides opportunities outside of the classroom. FEP students have the option to participate in the engineering Living Learning Community and the program sponsors extracurricular activities to help students get to know their classmates.

## FEP SUCCESS

- Since the Freshman Engineering Program was created, second-year retention for engineering students has risen from 61 percent to 70 percent.
- The six-year graduation rate has risen from 38 percent to 46 percent.

## FEP AND THE HONORS PROGRAM

Freshman engineering students who are in the Honors College and advanced in math placement have an opportunity to enhance their education beginning in their first semester, through the Honors Research Experience and the Honors Innovation Experience. During the fall semester of these two-semester courses, students attend weekly seminars delivered by University of Arkansas faculty and alumni. After that, they work in teams on research or entrepreneurship projects, with the help of a faculty mentor. In the spring, students present the results of their efforts at the Honors Symposium. For the symposium, each team prepares a technical paper, participates in a poster session, and delivers a 20-minute technical presentation.

