

To meaningfully improve the academic quality, research rigor and overall efficiency and effectiveness of the FAMU-FSU Joint College of Engineering, several critical investments must be made.

1) Five new faculty lines

5 X \$120,000 = \$600,000

- a. As the FAMU-FSU College of Engineering for the foreseeable future will remain a relatively small College of Engineering, then the highest priority must be placed on the strategic hiring of faculty to complement existing strengths and also have a bridge to other disciplines at FAMU and FSU that reside outside engineering.
- b. It is only through a strategic and highly selective hiring process that we can expect to positively enhance the academic and research missions of both the FAMU-FSU College of Engineering and other colleges and schools within our institutions.
- c. Funding is requested to hire 5 new faculty at the Assistant Professor level in the FAMU-FSU College of Engineering, who will develop independent research programs and teach undergraduate and graduate courses. The Dean of the FAMU-FSU College of Engineering in consultation with the Provosts, Vice Presidents for Research, and FAMU-FSU Faculty will identify the strategic areas of hiring and immediately begin the search process with arrival of the new faculty by fall 2016.

2) Startup funds for new faculty

\$5 million

- a. Universities provide “start-up” packages enabling faculty to obtain the necessary equipment, reagents, and supplies to collect data and develop proposals for external funding to launch their research careers.
- b. Faculty hired in the College of Engineering embrace a multifaceted mission of teaching, research and service.
- c. Research activity centers on conducting original study in the field of engineering and effectively creating “new knowledge” for the discipline. Conducting original research is central to the mission of a research university.
- d. Primary focus in training students is so that they can obtain jobs and perform effectively as professional engineers.
- e. Packages include funds for renovation and for technician and student support. The latter are critical for the training of graduate and undergraduate students.

3) Salary inequities

\$1 million

- a. In order to retain the best and brightest faculty, faculty salaries must be improved.
- b. Currently, faculty salaries are below the Oklahoma State University (OSU) market level – 114 public research institutions are included in the OSU salary survey.
- c. It costs more to recruit new faculty than providing an incremental increase to get faculty salaries on par with market conditions.
- d. There would not be an across the board salary increase. Salary levels would be based on a review of the current classes faculty teach, in comparison to faculty teaching the same courses at other institutions who participate in the OSU salary survey.

4) Potential Outcomes for the state of Florida

- a. Increases in the number of bachelors and advanced degree graduates in the strategic research areas of energy, biomedical engineering, environmental sustainability, controls and optimization.

- b. Significant increases in the number of degrees awarded in the core engineering disciplines of civil, chemical, biomedical, electrical, computer, industrial and mechanical engineering – all engineering areas of strategic and critical importance to the state.
- c. Graduates with higher wages based on their marketability and areas of strategic interest and importance in the engineering profession.
- d. Improved research focus and outputs in the form of patents, startup companies and commercialization of research products in the identified strategic areas for the five faculty positions.
- e. Assistance to the state in diversifying its energy portfolio and meeting its goals with respect to biomedical research, environmental sustainability, controls, and optimization.
- f. Enhanced business climate attracting companies to Florida with significant research interest in the identified strategic areas—especially companies in the energy and power, materials, biomedical, environmental, robotics and prosthetics fields.
- g. Retaining engineers produced in Florida to stay and work for Florida’s growing field of technology based companies.
- h. Support of the state’s existing tourism and agricultural industries tied to additional research and related companies doing business in Florida.