As faculty members begin to settle in to the new Engineering Research Building, the university will begin hiring new faculty members to increase its research activity and annual generated revenue to help reach recognition as a national research institution. Continuing to increase the number of contracts and grants at the university depends upon its success in hiring new faculty and getting more current faculty actively engaged in research, said Engineering Dean Bill Carroll.

The next step for the university is to fill extra lab and office space and to address the space needs of the other five engineering departments, said Carroll, who is stepping down at the end of August.

“This will be challenging because of the tough economic climate, but I’m optimistic we will be successful through persistence and resourcefulness,” he said.

The university has stated that the Engineering Research Building and the Engineering Lab Building renovations will enable the college to accommodate an additional 25 faculty members within five years.

Currently, the university has faculty searches ongoing in civil engineering, computer engineering, electrical engineering, mechanical engineering and aerospace engineering, but there’s no timeline for when or how many it will hire. It may happen at the beginning of a new fiscal year, said Science Dean...
Pam Jansma.

The building will help UTA reach Tier One status by attracting students, high-quality faculty and more research funding said university spokeswoman Kristin Sullivan. In the 2009-10 academic year, the university generated more than $52 million in research funding.

The $126 million facility gives researchers more space that allows them to work closer together, which fosters collaboration Sullivan said.

“What we’ve created is an area on campus that can be a hub for generating and conducting research on campus,” she said. “The more research funding we can bring in, the less we have to depend on state funding for research.”

The Computer Science and Engineering Department and Bioengineering Department share parts of the building with the College of Science. The college will have 18 research labs that will be shared by biology, neuroscience, physics, chemistry and biochemistry.

“Having computer scientists and engineers, biomedical engineers and biologists in the same building will foster collaborations in biotechnology and related fields that would, likely, not have happened otherwise,” Carroll said.

Faculty members within various colleges sometime collaborate on various research projects because of the related nature of projects that may involve research in areas like biotechnology, math or social work.

For example, Alexa Smith-Osborne, social work assistant professor and bioengineering professor Hanli Liu are working together to identify any learning disabilities war zone veterans may have.

Liu uses a functional near-infrared spectroscopy machine to determine which parts of the brain aren’t receiving enough blood. Smith-Osborne uses the data to determine how to help student veterans.

“By having researchers working so closely together, it will allow for more collaborative projects and research because they can pitch ideas and brainstorm more easily,” Jansma said. “It will be a lot easier for researchers to talk to one another when their labs and offices are a few doors down from each other.”

Labs and Research Projects

**Heracleia Human Centered Computing Laboratory**

**Leading Faculty:** Director Fillia Makedon, assistant director Zhengyi Le and assistant professor Heng Huang

Researchers use wireless sensor networks to detect and record abnormal human activities for elderly who live alone. After the project is completed, researchers will have an online system that monitors human activity and notifies physicians of physical changes as detailed as limping.

**Vision-Learning Mining Research Lab**

**Leading Faculty:** Assistant professor Vassilis Athitsos

The lab members conduct research in the areas of computer vision, machine learning and data mining. One focus includes sign language recognition software that will work as a visual dictionary.

**Biomedical Optics Laboratory**

**Leading Faculty:** Director and bioengineering professor Hanli Liu

Research includes investigating a minimally invasive way to screen for and diagnose prostate cancer by using a multi-channel optical imaging system that makes surgery less invasive.

Correction

An earlier version of this story that appeared in print on 1/18/11 and on www.theshorthorn.com did not attribute the $52 million generated for academic research to the grants and contracts data set provided in UTA's Fact Book, prepared by Institutional Research and Planning. The $52 million refers to funding from only grants and contracts and does not reflect money set aside by both the state and university for research purposes. Research activity in 2009-10 totaled $63.6 million, according to the annual President's Report.