OAKLAND UNIVERSITY

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Crittenton Hospital partners with OU for lean student internships

An Oakland University partnership with Crittenton Hospital Medical Center in Rochester is giving industrial and systems engineering students an opportunity to complete their senior design projects while helping the hospital create more efficient work processes.

OU was first to partner with Crittenton when the hospital began its internship program in the summer of 2006. Bob Van Til and Sankar Sengupta, industrial and systems engineering professors and working team members of the Pawley Learning Institute at OU, worked with Crittenton personnel to develop the program.

“Our staff loves having interns in their department because they’re there to help,” said Gary Altman, program leader of process engineering at Crittenton Hospital. “They all have an impact on business metrics for the hospital.”

Student interns Jon Polom, Michelle Dick and Adrea Toth are working on a project in the operating rooms, while Pamela Najjar, Robert Tibedeau and Robert Boylan are conducting their project for the Radiology Department.

Typically, all OU engineering majors work on a joint senior design project that focuses on design of a product rather than a system. According to Tibedeau, it’s important for industrial and systems engineering majors to do this type of senior design project – one that’s related to their career choice.

Najjar agreed. “I think it’s more effective for the ISEs to work together on a project like this,” she said.

The goals for the OR project are to keep traffic and infection rates down, improve patient safety and increase efficiency. According to Dick, research shows that if traffic is reduced, safety of the patient is improved.

The Radiology Throughput Project aims to improve the Out-Patient Imaging Center by minimizing patient and staff wait time, increasing efficiency and decreasing workload. Student interns are focusing on walk-ins, x-rays, ultrasounds, mammograms and bone density tests.

“The Crittenton Imaging Center is not at maximum capacity, and we’re trying to get them there,” Najjar said. She added that prior to the internship she didn’t know the process of radiology and didn’t realize what was holding up patients. Now she has received data and seen how it affects people firsthand.

The projects also help students work on leadership skills. Polom said he is learning how to effectively manage projects.

“The only way you’ll ever really get it down is by doing it,” he explained. Polom added that the most important thing is learning to work with people, as industrial engineering is a very people-oriented field.

Tibedeau said he has learned about data collection, process mapping and different ways people approach the process. “I think that actual real world experience is my favorite part,” he said.

The interns meet biweekly with the Crittenton staff and Altman on opposing weeks. They are able to do work on their own time, generally two or three times a week.

Altman, with the help of Van Til and Sengupta, supervises the interns, facilitates project teams, overviews projects and helps with data analysis. His goal is to grow the internship program, which he said he’s happy with.

Paid summer internships involve work for 40 hours a week on a project with a large scope. Winter and fall internships are for 20 hours a week and students receive course credit.

“I would definitely recommend it to other students, going out there and doing things that other industrial (and) systems engineers will do in the real world,” Dick said.

For more information about engineering programs at Oakland University, visit **oakland.edu/secs**. To learn more about the Pawley Learning Institute, visit **oakland.edu/lean**.

SUMMARY
OU and Crittenton Hospital have partnered to give industrial and systems engineering students the chance to complete their senior design projects and help the hospital.

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