

OFFICE OF GOVERNMENT AND COMMUNITY RELATIONS

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Major companies partner with students to solve real-world problems in capstone ISE course

All semester long, Katie Folk and Adam Quinn, Industrial and Systems Engineering (ISE) students at Oakland University, have been trying to solve one problem – but not the kind found in textbooks. And not in a classroom.

Instead, Folk and Quinn are working on a real-world issue for a major health care provider as part of a capstone class within the ISE Department in the School of Engineering and Computer Science.

The fall semester in ISE 491 Senior Design for the two students has existed in hospital wings and with staff at St. Joseph Mercy Oakland Hospital, located in Pontiac. The project's focus is to attempt to decrease wait times for surgeons and their teams to use given operating rooms.

For the project, which runs through November, the senior Engineering majors observed various processes from the end of an operation – sometimes watching entire surgeries – until the beginning of the next one.

Throughout, they recorded and analyzed timing data, and from that, were able to see how time was divided between tasks during a turnover period.

“We saw jobs happening in the operating room that could likely be done at the same time instead of consecutively,” said Folk. “We’re

working with hospital staff to see if it’s possible to realign tasks to run in parallel.”

The students are also seeking input from housekeeping and medical staff members on how to structure specific responsibilities, such as cleaning medical instruments, having equipment ready, preparing a patient and more.

Quinn said the experience of working with a company has been empowering.

“It feels great to know that what we learned here at Oakland is significant and that we are readily able to use our skills to work with industry,” he said. “Having a class that involved real-world experience is always great, but a class that is basically contracting students out to do a project that we might do in a career is a unique experience that is highly valued.”

The ISE Senior Design course, since its introduction in 2007, regularly pairs groups of two or three students with local companies to develop and implement solutions to various workplace issues.

The department is also partnered with General Motors, Fiat Chrysler Automobiles, Rayconnect Inc., DTE Energy, Crittenton Hospital Medical Center and Beaumont Hospital – Troy.

Students meet with the course instructor once a week, but are encouraged to work out answers to questions doing their own research. Teams present their projects, write reports and document their design processes using engineering standards. At the end of the semester, teams submit a final report to the sponsor company and often present their findings to its representatives.

Robert Van Til, Ph.D., chair of the ISE Department, said the project usually entails a project developed by the company involving a solution to an issue that could have immediate impact. In other words, each project is something each company truly wants to accomplish.

“Besides all the engineering aspects of these projects, the students are also working as part of a team from the sponsor company – St. Joe's in this case – and it requires them to use their soft-skills such as communications and teamwork,” said Van Til.

“This is an extremely important capstone experience that allows our ISE students to apply all the theory, concepts, tools and applications that they learn in various courses to a real-world problem in a real-world environment.”

For more information about the ISE senior design project or the department, visit oakland.edu/ise.

NEWS YOU CAN USE

Oakland University students share stories of those who inspire them

The Honors College accepted 12 faculty nominee essays from students from around the university in celebration of the 2015 Inspiration Awards.

While all were spotlighted for their dedication to the student experience, student Joseph Pham's essay stood out as the "most inspiring" on behalf of Dr. Daniel Lorca, assistant professor of Modern Languages.

Pham wrote in his nomination, "El profesor excelentísimo de español Daniel Lorca has inspired me both as a gentleman and a scholar. A man well versed in both refined-language and the literary arts, Professor Lorca also 'aspires to rise' each and every day far beyond the typical call of duty for a foreign language instructor."

"It is with great pride we build upon the growing tradition of the Inspiration Awards," noted Graeme Harper, Ph.D., dean of The Honors College and host of the awards program.

OUPD taking part in Shop with a Hero program

The Oakland University Police Department is getting into the holiday spirit by joining the Lake Orion Police Department's Shop with a Hero community outreach program.

"This program teams up uniformed police officers and military members with area children for an evening of gift shopping for the holidays," said OUPD Chief Mark B. Gordon. "It was a really rewarding experience for our department last year and we

look forward to spending time with the kids again this year."

Chief Gordon added that beyond holiday cheer for both officers and children, this type of outreach helps build a stronger relationship between law enforcement officers and the community. "Programs like this are good reminders that our officers are engaged, vibrant members of the communities they protect and serve."

Learn more about this community outreach initiative of the OUPD by visiting:
<http://oupolice.com/2015/11/30/help-make-a-childs-christmas-brighter/>

Agencies participating in the Shop with a Hero program this year include:

- Lake Orion Police Department
- Federal Bureau of Investigation
- Oakland University Police Department
- United States Army 1775th and -1776th Military Police Units
- United States Marine Corps

OU Reading Recovery Center continues to expand literacy efforts

On a brisk November morning, just a few miles down the road from Oakland University's Rochester campus, Walton Charter Academy bustles with bright-eyed, enthusiastic children learning time-honored lessons in reading, writing and arithmetic. Of the 85 first-grade students who attend the school – nestled along Walton Boulevard in Pontiac – nearly a third come from households where English is not the primary language.

The students also face economic hurdles, with more than 80 percent

qualifying for free or reduced-price school lunches. These obstacles can present a steep learning curve for students when it comes to mastering literacy skills.

Oakland University's Reading Recovery Center – the only center of its kind in Michigan – is part of an ongoing effort to help students gain the skills needed for long-term success. The Center was recently awarded a grant from the Reading Recovery Council of North America that is being used to train 18 Michigan teachers in Reading Recovery – two from Walton and others from schools in Detroit and Grand Blanc. The total award is worth more than \$53,000, with each teacher receiving \$1,000 for tuition costs and \$1,800 in books and materials for use with Reading Recovery students.

According to Dr. Mary Lose, director of OU's Reading Recovery Center, grant funding has played a key role in helping the center implement and expand Reading Recovery efforts in schools around the state.

"We've been very successful in obtaining grant support over the past several years," said Dr. Lose. "This latest grant will make an enormous difference in the lives of about 180 Reading Recovery students this year alone and almost 1,000 Reading Recovery children in the next five years. And very important is the impact the teachers' new learning will have on their classroom and small group instruction with the children they teach every day in their other instructional roles."

For more on OU's Reading Recovery Center, visit oakland.edu/readingrecovery.

STATE AND NATIONAL HEADLINES

Kentucky higher education leaders appeal to Gov. Matt Bevin to boost spending

State education leaders hope a college funding program that ties performance improvement to increased cash appeals to Governor-Elect Matt Bevin.

The Kentucky Council on Postsecondary Education approved a budget Friday that would boost spending for the state's universities and colleges by \$122 million over two years — a hefty 13.4 percent increase.

That includes a special \$10.8 million spike in Northern Kentucky University's funding to bring the institution's per-student funding up to the state average among its peer schools.

WCPO Insider
November 14, 2015

MS: Universities plan tuition increases in 2016

In-state tuition at Mississippi's public universities is set to rise by 4.1 percent on average for 2016-17 and another 3.3 percent on average for 2017-18, per plans presented to the board. The increase would lead to a statewide average of \$7,027 for two semesters of full-time enrollment, up about \$268 from the current year. Increases for 2016-17 range from 2.5 percent at Alcorn State University to 5 percent at Delta State University, with increases ranging from 1.4 percent to 4.9 percent in 2017; Delta State University is the only one of the eight public universities that plans no additional increase for 2017-18. University officials claim the tuition increase is necessary given growing expenditures for faculty salaries and operational costs, combined with state appropriations that continue to fall short of pre-recession levels. Tuition in Mississippi has increased 64 percent over the past decade,

while household incomes in the state grew less than 20 percent.

Hattiesburg American November 19, 2015

International Enrollments Increase

Nearly a million international students are studying at colleges across the U.S.

The newest data from the Institute of International Education's annual Open Doors survey shows a 10 percent increase in international students from 2013-14 to 2014-15 -- the highest annual rate of growth at any point over the last 35 years.

American participation in study abroad also grew by 5.2 percent from 2012-13 to 2013-14, when 304,467 students studied abroad for academic credit. IIE is spearheading a national campaign to double the number of students studying abroad and to increase the diversity of those students.

Inside Higher Ed
November 16, 2015

IN: Republican proposal would offer aspiring teachers free college tuition

A proposal in the Indiana House would have the state fully pay tuition for students who pursue teaching degrees, rank in the top 20 percent of their high school class, and spend five years teaching in classrooms after graduation. Like many other states, Indiana has reported difficulties in recruiting well-qualified teachers to teach special education, math and science, particularly in rural and low-income urban areas. The proposed bill would encourage the state's best and brightest to pursue careers in the classroom, proponents say. The state legislature is also considering a bill to decouple student test scores from teacher evaluations and pay.

Chalkbeat Indiana
November 17, 2015

NY: SUNY seeks 14 percent increase in state aid and higher tuition to help fund college readiness and completion goals

The State University of New York Board of Trustees approved a budget last week requesting an additional \$224 million, or a 14 percent increase, in state aid from the legislature, bringing total state aid to \$1.8 billion. The system also lobbied to extend the SUNY 2020 program for five additional years; the program let SUNY increase tuition by \$300 per year for the past five years. SUNY officials stated the aid and tuition increases would help the system reach their goals to college readiness for at-risk students and improve graduation rates overall. They cited that for every 100 New York 9th graders, only 23 will complete a college degree close to on-time, in part due to high remediation needs. Both proposals will likely face challenges in the legislature: some state lawmakers have already called for data about the effectiveness of SUNY's programs before they will agree to aid or tuition increases.

WGRZ.com
November 11, 2015

California's public universities in high demand, but have little room

A new report says increased demand and higher enrollment standards are making it more difficult than ever for California residents to get into the state's public universities.

Even as Californians have heeded the call for higher education, the state has failed to invest enough



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State and National Headlines *CONTINUED*

money in the California State University and University of California systems to accommodate the explosive demand for bachelor's degrees, according to the report titled "Access Denied: Rising Selectivity at California's Public Universities," to be released Monday by the Los Angeles-based nonprofit The Campaign for College Opportunity.

Long Beach Press Telegram
November 30, 2015

A commitment to make higher education a priority again

The last increase in state funding for higher education came in 2008, which was Gov. Bobby Jindal's first year in office. By December of that year, though, cuts had started. They have continued every year.

By 2013-14, Louisiana came in last among 16 Southern states for general fund money allocated for each full-time college student. The state has cut higher education funding more than any other state since 2008 — 42 percent, according to a report by the Center on Budget and Policy Priorities in May.

The conversation is changing, though, as Gov.-elect John Bel Edwards meets with higher education leaders during his transition

NOLA.com
December 6, 2015