

## Engineering Up-Close brings prospective TCC students to experience the Helmerich Research Center

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Photo by Clinton Switzer

In the main lecture hall of the Helmerich Research Center, prospective students received a presentation about OSU-Tulsa's Mechanical Engineering degree program.

Since its opening in 1999, Oklahoma State University's Tulsa Campus has brought the citizens of Tulsa and the surrounding areas the opportunity to earn a college degree from OSU, without having to relocate or make long commutes to the main campus in Stillwater, OK. The opening of an OSU campus in Tulsa was a huge step for the city as it finally brought permanent and affordable higher educational opportunities to a town that when compared with other cities of the same size, was severely lacking.

The path to OSU-Tulsa started in 1982 when legislation was signed by governor George Nigh to bring public higher education to Tulsa by establishing the University Center at Tulsa, a school that offered junior and senior level college classes through partnerships with the University of Oklahoma, Northeastern Uni-

versity, Langston University, and OSU. In 1986, after being scattered out in different buildings around Tulsa, the City of Tulsa's development authority earmarked the 200 acre plot north of downtown to become the site of the UCAT campus.

At the time, the only higher learning intuitions in Tulsa that offered junior and senior level courses were the University of Tulsa and Oral Roberts University, both private universities with much higher tuition costs than state universities. UCAT was an attempt to address the higher education void in Tulsa by bringing classes and degree paths from state sponsored universities to Tulsa.

The UCAT program, which did bring some degree offerings to Tulsa, was never the big success that the City of Tulsa hoped for. Limited course offerings made it hard for UCAT to attract a large numbers of

students and all lower division classes had to be taken at TCC or at other colleges.

Taking over the old UCAT campus after the passing of Senate Bill 1426, signed into law in June 1998 by Gov. Frank Keating, the OSU extension to the main Stillwater campus became the first public university in Tulsa when it opened in 1999.

Since then, OSU-Tulsa has steadily grown and through partnerships with TCC, students can complete lower division classes at TCC, and then seamlessly transfer to OSU-Tulsa to complete upper division classes and earn a Bachelor's degree in one of the many degree fields offered at OSU-Tulsa.

The Engineering program at OSU-Tulsa was highlighted on Friday, November 3, as the Helmerich Research center hosted "Engineering Up-

Close," an open-house event intended for students interested in learning more about OSU-Tulsa's Mechanical Engineering transfer program. Prospective students were treated with free pizza and encouraged to talk to OSU students and staff who were stationed at booths with pamphlets and literature spread out in the lobby.

These booths represented various student organizations such as the American Society of Mechanical Engineers (AMSE) and departments of the college such as the academic advising, financial aid, and the library.

Behind the academic advising table was Ron Knight, a familiar face to many of TCC's engineering students. Knight teaches Intro to Engineering at TCC's NE Campus, a class that all TCC engineering students are required to take and also works as an academic counselor for the College of Engineering at OSU. At his table students were able to talk with Knight about the different engineering disciplines and get a copy of the important checklist of classes to complete at TCC before transferring into OSU-Tulsa's Mechanical Engineering program.

Other booths had current students majoring in Mechanical Engineering representing student organizations such as Society of Women Engineers (SWE) and the American Society of Mechanical Engineers (AMSE). Kyle Kress, who was at the AMSE table remarked about the event,

**"It's a great opportunity for students to be successful and make connections before their first semester at OSU-Tulsa."**

After the pizza lunch, stu-

dents were ushered into the main lecture hall where Associate Dean for Engineering at OSU-Tulsa, Raman P. Singh, Ph.D, spoke to the group of prospective OSU students about the partnership between OSU and TCC.

**"We are typically geared towards transfer students incoming from TCC there is an agreement in place, it is a formal agreement, it will get to the point it where the moment you get into TCC you will be given a chart that says this is what you do for the next four years and you are done."**

The transfer plan for a B.S. in Mechanical Engineering is designed so that all lower division classes can be completed at TCC before transferring to OSU-Tulsa. These lower division classes, such as Calculus I, II, and III, and Engineering Physics, are not offered at the OSU-Tulsa campus so it is important that students interested in transferring complete all required lower division classes while attending TCC.

The upper division classes needed for a B.S. in Mechanical Engineering are offered at the OSU-Tulsa Campus. Without splitting up the degree requirements between TCC and OSU, the smaller OSU-Tulsa campus would not be able to offer the Tulsa community an engineering degree program as the smaller campus lacks the resources required to offer all upper and lower division classes.

Students looking for a traditional college experience or earning a degree in other engineering disciplines, such as electrical or civil engineering,

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Dr. Singh also spoke about the differences and advantages of attending classes at the Helmerich Research Center compared to OSU's main campus including the smaller class sizes and greater access to faculty.

**"Over here not only do you get exposed to the undergraduate curriculum but you also get exposed to research that goes on in material science and engineering. Almost all of the undergrads here have opportunities for summer research....you get exposed to much more than what you would see in your classes."**

The Helmerich Research Center was opened in 2008 as part of the Tulsa County Vision 2025 Proposition 3 to enhance educational institutions in Tulsa and is a state-of-the-art research center that houses OSU's School of Materials Science and Engineering.

After being addressed by Dr. Singh and watching a short video about the Helmerich Research Center, which recently

had two graduate students land jobs at N.A.S.A.'s Johnson Space Center in Houston, a panel of six current OSU-Tulsa mechanical engineering students (all TCC transfers) answered questions from the audience of prospective students about their experiences at OSU-Tulsa.

The panel spoke about the tight-knit community that exists between students at the smaller OSU-Tulsa campus and contrasted their experiences to the more typical college experience students might encounter at OSU's main Stillwater campus.

They talked about how all of the classes a mechanical engineering student at OSU-Tulsa must take are held in the same building, the Helmerich Research Center, and combined with smaller class sizes and the fact that the same students are in most every class together, leads to the formation of a close student community. They described themselves as a close group of peers who are all struggling through the same tough courses day in and day out, together.

OSU-Tulsa's Mechanical Engineering program does not have the luxury or the resources to offer a class at more than one time during a semester. This leads to students who start the program at the same time being in class after class together, whereas at the Stillwater campus and many other large universities, the schedule of one student is rarely ever the same as another student.

After the presentation, the audience was split into groups for guided tours around the Helmerich Research Center led by the students on the Q&A panel. During the tour, the groups were brought down into the basement to see some of the research labs the center houses. In one lab, a research scientist working with an electron microscope showed the groups pictures of samples that



**OSU-Tulsa engineering students Angela Ashwood (left), Abigail Contreras (center), and Jared Martindale (right) participated in the student Q&A panel and gave students a tour of the Helmerich Research Center.**

had been magnified upwards of 800,000 times, making them undistinguishable from their unmagnified forms. Another part of the tour brought students outside to view, from a safe distance, the testing of a jet engine that students designed and assembled at the Helmerich Research Center.

During the tour, the student guides, all of whom are in their last, or second to last semester before graduating from OSU, opened up about their individual experiences and how they got to OSU-Tulsa through taking classes at TCC. They assured students that if they can get through NE Campus' notoriously tough classes taught by Dr. Griffin, they can get through the classes at OSU-Tulsa. They talked about the internships they were able to take part in and their prospects for jobs once they graduate. This part of the tour really helped prospective students get an idea of is in store for them should they choose to transfer to OSU-Tulsa and study me-

chanical engineering.

After the tours were over the groups convened in the main lobby where OSU staff raffled off several prizes. The volunteer OSU-Tulsa students were very kind in staying after the event was supposed to be over to answer more questions from prospective students.

Engineering Up-Close accomplished what it set out to do, show potential students what OSU-Tulsa has to offer and highlight the state of the art resources at the Helmerich Research Center. There is no question that the quality of education at OSU-Tulsa is at the same high level as any other academic institution, but it is the student experience that greatly differs from traditional larger colleges. The M.E. program at OSU-Tulsa offers students a more intimate experience not only with classes and research, but also a more cherished familiarity with fellow classmates and a chance to build the kinds of friendships that are rare in life, the kind forged through

hours of shared struggle and adversity of earning a degree in engineering.

More information about OSU-Tulsa and the degree programs offered can be found on their website [www.osu-tulsa.okstate.edu](http://www.osu-tulsa.okstate.edu) or by contacting OSU-Tulsa Prospective Student Services at 918-594-8355.

OSU has an online college credit transfer guide that can be used to check how credits earned at other institutions will be counted at OSU. It can be found at <http://admissions.okstate.edu/information/college-credit-transfer-credit-guides.html>

Students interested in transferring from TCC to OSU-Tulsa should talk to a TCC academic advisor. The advisors can help students look at what classes they need to be taking for their chosen degree path and give realistic timeframes for when a student can expect to be ready to transfer.

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