# Degrees of Progress

OKLAHOMA STATE REGENTS FOR HIGHER EDUCATION

Improving our future by degrees

News from the State Regents for Higher Education

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#### OKLAHOMA PUBLIC HIGHER EDUCATION: ACHIEVEMENTS AND OPPORTUNITIES

By Chancellor Glen D. Johnson

Looking back on nearly 15 years as the chancellor of public higher education and four decades in public service, we can be proud of all we have accomplished together as a state system.

To expand college access, we worked with our governor and Legislature to secure full funding for concurrent enrollment for high school seniors and increased concurrent enrollment opportunities for juniors, serving over 14,000 students in the last academic year. We also worked to secure a dedicated funding source for the Oklahoma's Promise scholarship and to increase the family income limit to adjust for inflation and allow enrollment through 11th grade. Nearly 98,000 Oklahoma students have earned the scholarship to date.

To increase degrees and certificates earned in Oklahoma, we developed a nationallyrecognized plan in partnership with Complete

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College America. Graduation rates at every tier have risen significantly since we joined CCA, including a 43% increase in STEM degrees over the last decade. We also developed the Reach Higher adult degree completion initiative to meet the needs of nontraditional students. Reach Higher has awarded over 10,000 degrees since 2007.

Another key endeavor is our highly successful Endowed Chairs program, which provides state funds to match private donations for faculty chairs, professorships and lectureships in critical disciplines such as engineering, business, health care and computer science. Since 2007, we've worked with the governor and the Legislature to secure over \$464 million in state funds to match private investments in the Endowed Chairs.

Through the State Regents' Task Force on the Future of Higher Education, we conducted a comprehensive assessment of our state system of higher education, resulting in bold recommendations addressing academic models, online education, structure, fiscal services, operational efficiencies, workforce development and information technology.

We created the Online Education Task Force to eliminate barriers to online education, encourage innovation while maintaining academic rigor, provide professional development for faculty teaching online and facilitate access to open educational resources to reduce student costs.

We established the Campus Safety and Security Task Force in 2007 to develop best practices for the safety of students, faculty, staff and visitors at Oklahoma institutions and technology centers. At the onset of the COVID-19 pandemic, we assisted colleges and universities in keeping the students and communities they serve safe



while continuing to provide a top-quality higher education experience.

Looking ahead to opportunities for Oklahoma higher education, we thank Gov. Kevin Stitt and the Legislature for providing a \$42.4 million budget increase for higher education this year — our largest since 2008 — which is powering a workforce development agenda focused on innovation and college degree completion.

We are expanding engineering, nursing and teacher education initiatives and developing micro-credentials, which provide options to retrain or upskill workers quickly to meet evolving business demands and create pathways for colleges and universities to stack professional competencies that can count toward completion of a degree.

With projected enrollment declines in coming years, we're investing in predictive analytics, which offer institutions an opportunity to use real-time data to boost student retention and degree completion, inform enrollment management planning and enhance recruitment efforts.

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### UCO LAUNCHES NEW DIGITAL CREDENTIALING INITIATIVE WITH CREDLY

By Patti Neuhold-Ravikumar, President, University of Central Oklahoma

In our rapidly changing world, it's as important as ever to seek opportunities to advance your skill set and then "show what you know." At the University of Central Oklahoma, we're offering a way to both upskill and showcase achievements and professional capabilities with the launch of a new digital badging program.

These digital badges, issued using Credly, the digital credentialing leader, allow individuals to display their verified knowledge, technical skills or professional abilities once they have completed designated learning requirements. They can include the badges on resumés and social media, in email signatures and other digital communications.

By providing a secure, digital representation of certifications, UCO students can more easily manage, share and make use of the skills they've earned through their Central experience within their networks, across social media platforms and on their resumes.

For employers, digital badges make it easy to identify individuals with the needed skills to be effective contributors in their specific industries.

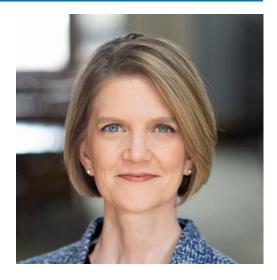
All of this provides our students, alumni and partners a state-of-the-art method for gaining the most value from their investment.

UCO currently offers more than a dozen opportunities for individuals to earn digital badges through the university's micro-credential offerings—which are learning experiences focused on a specific skill, knowledge or ability. UCO's micro-credentials are available embedded in degrees or programs and as free-standing learning opportunities. Currently, UCO has two free-standing opportunities, which include the Learning Experience Design program and Workforce Advantage. Central already has plans to add dozens more microcredentials to the current lineup.

Micro-credentials also provide a unique and special way that UCO partners with business and industry to support workforce development needs. In summer 2021, UCO partnered with the Greater Oklahoma City Chamber to design the InternOKC 2021 micro-credential. Participants in the program demonstrated capabilities focused on critical thinking, essential professional skills, professional behaviors, professional relationships and strategic perspectives.

Through these micro-credential offerings, Central has opened many doors for our students and professionals to demonstrate specific knowledge, skills and abilities in ways that create a more complete picture of their capabilities. With the ever-changing workforce, specifically post-pandemic, UCO's microcredential program prepares students for success and enhances the future for Oklahoma.

For more information about micro-credentials at Central, visit www.uco.edu/academic-affairs/ microcredentials.





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Interest in online education has steadily grown over the last decade, and the pandemic has dramatically boosted participation, with more than 173,000 college students transitioned to a nearly completely virtual learning environment in March 2020. While this transition was successful, we remain focused on strengthening online education for students.

Collaborations and partnerships ensure continued institutional viability and keep college access points open to students. While Oklahoma higher education has been actively engaged in collaborating to improve efficiency and generate cost savings such as merging back-office administrative

functions — more pioneering partnerships will further enrich the academic enterprise, such as faculty sharing and joint degree programs to expand academic program offerings, engaging external partners to migrate existing programs to new delivery formats and developing early college programs that allow students to graduate from high school with an associate's degree. As our higher education business model continues to change, growth of these types of initiatives will be increasingly important.

It's been my privilege to serve as chancellor of our state system of higher education. These accomplishments and opportunities demonstrate that investment in higher education positions Oklahoma for a brighter, more diversified economy in the future.



#### **NEW CHANCELLOR NAMED BY STATE REGENTS**

After completing a comprehensive national search, the Oklahoma State Regents for Higher Education have announced the selection of national higher education and business leader Allison D. Garrett as the next chancellor of the Oklahoma State System of Higher Education. Garrett will take office as Oklahoma's ninth chancellor on Nov. 8, 2021, succeeding Chancellor Glen D. Johnson, who has served in the office since January 2007. She will be the first woman to hold the position of Chancellor.

Garrett brings a wealth of experience in both higher education and the corporate sector. She most recently served as president of Emporia State University (ESU) in Emporia, Kansas. She worked for more than a decade at the Walmart Inc. corporate offices, holding the positions of vice president and general counsel for the corporate division and vice president of benefits compliance and planning. She also served as vice chair of the NCAA Board of Governors and as chair of the NCAA Division II Presidents' Council.

Under Garrett's leadership, ESU developed momentum in several key areas, including completion of its largest capital campaign; transformation of the campus with new building projects; and development of new academic programs to address the needs of state and regional business and industry.

Significant advancements at ESU during Garrett's presidency include several all-time records, including highest retention rates, highest four- and six-year graduation rates, largest graduating classes, and highest graduate school enrollment. The Garrett years also included the top fundraising year on record and four of the top five in ESU history. The university's U.S. News rankings improved, and ESU is the only public university in Kansas to make the top 100 in social mobility, a measure of success in graduating Pell-eligible students. ESU has recorded the lowest student debt of all public

Kansas Board of Regents institutions for five consecutive years, and the university has a 96% (four-year average) score for career outcomes for its graduates.

Prior to serving as president of ESU, Garrett served as executive vice president of Abilene Christian University, senior vice president for academic affairs at Oklahoma Christian University, and as an associate professor of law at Faulkner University in Montgomery, Alabama. A native of Neosho, Missouri, Garrett holds a bachelor's degree in English from Oklahoma Christian University, a juris doctorate from the University of Tulsa College of Law and a Master of Laws in securities regulation from Georgetown University. Upon graduation from law school, she went into private practice before taking a position with the U.S. Securities and Exchange Commission.

Garrett and her husband, former judge Chip Garrett, a Nowata native, continue to operate a cattle ranch in northeast Oklahoma. They have three children.

To fill the position of chancellor, the State Regents selected the firm Buffkin/Baker



from a competitive bid process to assist in conducting a national search. Working with Buffkin/Baker, the State Regents developed the position profile that outlined the qualifications sought in the next person to lead Oklahoma public higher education. Throughout the search, Garrett rose to the top due to her innovative leadership and her extensive higher education and business experiences, which have led to outstanding results for the institutions she has served.





#### CHANCELLOR JOHNSON HONORED WITH KEY CONTRIBUTOR AWARD

Chancellor Glen D. Johnson was recently honored by the Oklahoma Academy with a 2021 Oklahoma Key Contributor Award during the 28th Annual Oklahoma Academy Salute in Tulsa.

This award recognizes individuals who have given generously of themselves to support the organization's events, public policy recommendations and implementation efforts.

Johnson was named chancellor of the Oklahoma State System of Higher Education in January 2007 following a national search.

Before assuming the role of chancellor, he served as the 16th president of Southeastern Oklahoma State University in Durant for 10 years. He was also director of public policy and adjunct professor of law at the University of Oklahoma College of Law. Prior to his work at OU, he served in the Oklahoma House of Representatives from 1982 to 1996 and was speaker of the House from 1990 to 1996. At the time of his election as speaker, he was the youngest sitting speaker in the United States. Johnson is an honors graduate of OU with

an undergraduate degree in political science and a juris doctorate from the OU College of Law, and is a member of Phi Beta Kappa. He was inducted into the Oklahoma Hall of Fame in 2006 and the Oklahoma Higher Education Hall of Fame in 2016. Johnson received the State Higher Education Executive Officers' (SHEEO) Exceptional Leader Award honoring the outstanding Chancellor/system-head in the nation in July 2019. In September 2020, he received Leadership Oklahoma's 2020 Lifetime Achievement Award.

#### DISTINGUISHED SERVICE AWARDS

The State Regents and Council of College and University Presidents recently honored four legislators with Distinguished Service Awards for Higher Education, which recognize individuals who demonstrate distinguished leadership and support of higher education in Oklahoma during the legislative session.

Rep. Mark McBride was recognized with the 2021 Distinguished Service Award for his support of higher education in his role as Chair of the Appropriations and Budget Subcommittee on Education and as a member of the Appropriations and Budget, Business and Commerce, and Energy and Natural Resources committees; the Joint Committee on Appropriations and Budget; and the State and Federal Redistricting South Central Oklahoma Subcommittee. McBride is a strong voice for investing in public higher education, including the Endowed Chairs program, concurrent enrollment, and expanding workforce development initiatives.

Sen. Roger Thompson was recognized with consecutive Distinguished Service Awards for his support of higher education in his role as Chair of the Appropriations Committee, co-chair of the Committee on Pandemic Relief and as a member of the Finance and Rules committees. Thompson has steadfastly supported the state system's budget priorities,

including Endowed Chairs, concurrent enrollment and expanding support for engineering, STEM, and nursing and teacher education programs.

Rep. Chris Kannady was recognized with a 2020 Distinguished Service Award for his support of higher education in his role as Chair of the Judiciary Committee and as a member of the Appropriations and Budget, Appropriations and Budget Judiciary, and Rules committees, the Joint Committee on Appropriations and Budget, and the State and Federal Redistricting South Central Oklahoma Subcommittee. Kannady is a strong advocate for the state system of higher education's budget needs, including Endowed Chairs, scholarships, and concurrent enrollment.

Rep. Kyle Hilbert was recognized with consecutive Distinguished Service Awards for his support of higher education in his role as Vice Chair of the Appropriations and Budget Committee and the Joint Committee on Appropriations and Budget; as a member of the Joint Committee on Pandemic Relief Funding and co-chair of the Joint Committee on Pandemic Relief Funding - Health and Human Services Working Group; as a member of the Alcohol, Tobacco and Controlled Substances, Banking, Financial Services and Pensions, and Common Education Committees; and as a member of the Legislative Office of Fiscal Transparency, Special Conference Committee on Common Education, and State and Federal Redistricting North Central Oklahoma Subcommittee. Hilbert is an avid proponent of higher education's budget needs, including workforce development efforts, concurrent enrollment, scholarships, and Endowed Chairs.



Rep. Mark McBride



Sen. Roger Thompson



Rep. Chris Kannady



Rep. Kyle Hilbert



### REMEDIATION RATES CONTINUE TO DECREASE

Assessment and course placement reforms in Oklahoma public higher education are moving the needle to decrease remediation rates in our state.

Of the fall 2019 first-time freshmen, 26.8% enrolled in one or more developmental courses — a 7.8 percentage point decrease from the previous year and a 15.7 percentage point decrease from 2011-12. Remediation rates in three of four individual subject areas have decreased from the previous year, with a 6.3 percentage point drop in math, 2.0 in English, and 2.5 in reading.

Assessing students' college readiness and placing students with skills below the college level into sequential developmental reading, writing and math courses has been standard practice at broad access two-year colleges and four-year universities for decades. Since 2015, Oklahoma's colleges and universities have incorporated additional college readiness measures, such as students' high school grade point average (GPA) and secondary placement testing, rather than

depending solely on national standardized test scores.

Students with developmental needs can now enroll directly in college-level courses with supplemental supports instead of taking multiple semesters of prerequisite remedial courses. Co-requisite course interventions place students directly into a gateway collegelevel course with additional academic support. Additionally, some colleges have created co-requisite English courses or integrated reading and writing courses that combine two traditionally separate courses into one.

In addition to revising assessment and placement policies and practices, Oklahoma's public colleges and universities have created gateway college-level mathematics courses that align to specific degrees of study. These diversified math pathways are aligned with students' intended majors; a student's major or career field is considered in course placement decisions. Students are placed into different college-level mathematics courses based upon what is required or used in their

future careers. Gateway college-level courses include Quantitative Reasoning, Functions and Modeling, Statistics, and Pre-Calculus (formerly known as College Algebra) for Science, Technology, Engineering, and Mathematics (STEM).

In November 2015, the Charles A. Dana Center of the University of Texas invited Oklahoma to join five other states to receive support and consultation in pursuing math pathways for the state system through the Math Pathways to Completion grant project. With a designated Dana Center liaison and structured assistance, the Oklahoma Math Pathways Task Force reviewed state data, trends and opportunities related to math pathways. Oklahoma completed the project in November 2018 with the development of four gateway mathematics courses, co-requisite course models, reformation of assessment and placement policies, and initial steps toward the development of coherent mathematics pathways across postsecondary institutions.

#### OKLAHOMA EPSCOR NAMES NEW DIRECTOR

The Oklahoma Established Program to Stimulate Competitive Research (EPSCoR) has named Dr. Raman P. Singh as director of the program beginning Oct. 1, 2021. Singh replaced Dr. Jerry Malayer, who served as director since 2010 and recently retired.

Singh serves as the associate dean for engineering at Oklahoma State University-Tulsa and as a faculty member in the School of Materials Science and Engineering and the School of Mechanical and Aerospace Engineering in the College of Engineering, Architecture and Technology at OSU. He also serves as the director of the Helmerich Advanced Technology Research Center on the OSU-Tulsa campus and is appointed as the Helmerich Family Endowed Chair Professor of Engineering.

Singh's research interests are in experimental mechanics, multifunctional materials and fracture mechanics. His academic interests are in recruiting, mentorship and retention of non-traditional and underrepresented student groups. His research has been funded by the National Science Foundation, NASA, the U.S. Army Research Office, the Department of Energy, the Office of Naval Research, the Oklahoma Center for the Advancement of Science & Technology, the Oklahoma Transportation Commission and industry. He is the author or co-author of several archival journal publications and conference proceedings and holds three patents. He serves as the vice president for the executive board for the Society of Experimental Mechanics (SEM) and as an associate technical editor for the journal Experimental Mechanics.

Singh holds M.S. and Ph.D. degrees in Mechanical Engineering and Applied Mechanics from the University of Rhode Island and a B.Tech. degree in Mechanical Engineering from the Indian Institute of Technology-Kanpur, India.

EPSCoR, originally developed by the NSF, is designed to expand research opportunities in states that have traditionally received less funding in federal support for university research. Oklahoma EPSCoR is a partnership among colleges and universities, industry, and research institutions. Its mission is to make Oklahoma researchers more successful in competing for research funding. Specific goals, objectives and strategies are developed for each federal EPSCoR program, based on federal and state needs.



### STATE REGENTS FACILITATE PARTNERSHIP WITH COURSERA

The State Regents have approved a statewide contract with Coursera, one of the largest online learning platforms in the world, to provide students, faculty and staff, and employers more opportunities for workforce and professional development at an affordable rate. Through the partnership, participating colleges and universities will have access to Coursera's comprehensive catalog of thousands of job-relevant courses across business, technology and data science, among other fields.

Engaging the Coursera learning platform on behalf of 15 Oklahoma public and private universities and colleges provides the opportunity to add value not only for Oklahoma higher education students pursuing degrees, but also for degree-holders to obtain micro-credentials, which increases employability and marketability, leading to increased personal income for Oklahomans. This partnership with the Oklahoma Department of Commerce and Oklahoma business and industry will meet state workforce

needs and bring even more value to pursuing an Oklahoma higher education.

The State Regents' collaboration with Coursera, which ties directly to recommendations from the State Regents' 2018 Task Force on the Future of Higher Education, will provide ongoing learning opportunities through a singular subscription at an affordable rate, including courses focused on high-demand digital skills, interactive learning experiences through Coursera's global community, and self-paced courses to complement campus-based coursework. Students will have options to earn industry-recognized credentials that institutions can combine with their course curricula to offer credit toward completion of a degree.

Institutions participating in the Coursera for Campus partnership are the University of Oklahoma, Cameron University, Langston University, University of Science and Arts of Oklahoma, Carl Albert State College, Connors State College, Eastern Oklahoma State College, Murray State College, Northeastern Oklahoma A&M College, Northern Oklahoma College, Redlands Community College, Rose State College, Seminole State College, Tulsa Community College, and Oklahoma Christian University.

Coursera was launched in 2012 by two Stanford Computer Science professors, Andrew Ng and Daphne Koller, with a mission to provide universal access to world-class learning. It is now one of the largest online learning platforms in the world, with 87 million registered learners as of June 30, 2021. Coursera partners with over 200 leading university and industry partners to offer a broad catalog of content and credentials, including courses, Specializations, Professional Certificates, Guided Projects, and bachelor's and master's degrees. Institutions around the world use Coursera to upskill and reskill their employees, citizens, and students in fields such as data science, technology, and business. Coursera became a B Corp in February 2021.

#### 2021 COLLEGE APPLICATION WEEK

Oklahoma College Application Week (CAW) is an annual opportunity for high school seniors to receive hands-on assistance from knowledgeable volunteers in completing their college applications. So far this year, over 100 schools, libraries and higher ed institutions in Oklahoma have registered for CAW 2021, representing over 12,000 high school seniors.

Even during an incredibly challenging fall semester, 90 Oklahoma high schools participated in CAW 2020, with more than 2,500 students completing over 3,000 college applications. While most of these applications went to colleges in Oklahoma, 36 states were represented in the final results.

Oklahoma GEAR UP piloted CAW in its 24 school districts in 2012 and 2013. In 2014, all high schools across the state were

invited to participate. In 2015, the Oklahoma College Assistance Program (OCAP) and the Oklahoma College Access Network (OK-CAN) joined GEAR UP in promoting CAW, which officially took place in November each year. Most CAW host sites will be holding their events September 20-24 this year, but they can choose any week, September through November, to fit into their activity calendars more easily. GEAR UP and OCAP offer free promotional materials and have used webinars, conference calls and Zoom meetings to introduce CAW to event coordinators and walk them through the program materials and resources.

College Application Week is part of a national initiative sponsored by The Kresge Foundation, the Lumina Foundation and

the Bill and Melinda Gates Foundation for the American Council on Education. At the state level, the project is endorsed by higher education Chancellor Emeritus Glen D. Johnson, the Oklahoma State Department of Education and the Oklahoma State Chamber.

For more information about Oklahoma College Application Week, visit <a href="OKCollegeAppWeek.org">OKCollegeAppWeek.org</a>.





### THE FAFSA IS NOW AVAILABLE

College planning has many steps and applying for financial aid can sometimes be an intimidating process. That's why the Oklahoma College Assistance Program (OCAP) offers StartWithFAFSA.org, a website created to help students and parents gain a better understanding of financial aid and the Free Application for Federal Student Aid (FAFSA) process.

StartWithFASFA.org content covers all aspects of financial aid, with categories that include FAFSA completion, Federal Student Aid (FSA) ID, grants and scholarships, student loans, helpful resources and more. StartWithFASFA.org also includes sections for frequently asked questions, FAFSA video tutorials in both English and Spanish and links to FAFSA publications and tools.

The FAFSA is used to determine how much federal and state financial aid a student may be able to receive to help pay for college. The 2022-23 FAFSA became available Oct. 1.

# startwithfafsa.org

Even for those who don't think they qualify, it's important to complete the FAFSA anyway. Many scholarship applications now require a completed FAFSA. Submitting a FAFSA does not automatically sign the applicant up for student loans or commit them to a college, it simply gives the college(s) the student is interested in attending an opportunity to discuss financial aid options. High school seniors and current college students who will need financial aid next fall should complete the FAFSA as soon as possible!

There are many misconceptions about the FAFSA. Some students don't submit the FAFSA because they believe their families make too much money to qualify for financial aid. However, most people qualify for some

type of aid, and it's best to know all options available. Parents who submitted the paper version of the FAFSA in previous years are often concerned the process is tedious and complicated. With the online and mobile FAFSA, however, submitting the application has never been easier. Help is available every step of the way.

Join OCAP's mailing list at ocap.org/news/ subscribe to receive the most important FAFSA updates and visit StartWithFAFSA.org, the allin-one resource for completing the FAFSA.

### 2021 READING CONFERENCE

The Oklahoma Teacher Connection recently hosted the 14th Annual (Virtual) Reading Conference, entitled Teaching Small for Big Learning: Effective, Current Practices in Literacy. The conference was attended by higher education faculty, teachers, administrators and other stakeholders throughout Oklahoma.

Each year the State Regents, in conjunction with higher education institutions, offer an annual reading conference with the purpose of providing substantive reading professional development and curriculum alignment with a variety of crucial and timely topics that affect both conventional and emergent readers.

Keynote speaker Jennifer Serravallo, New York Times bestselling author of The Reading Strategies Book and The Writing

Strategies Book, led the conference with "Reading Strategies and Small Group Instruction." Drawing from Serravallo's popular resources on the teaching of reading, this presentation showed how to become adept at assessing and teaching to support student growth in reading through conferences and small group instruction.

During the first afternoon session, participants listened to Dr. Sheri Vasinda, Associate Professor of Literacy Education at Oklahoma State University, who presented "Teaching Small: Modeling, Mentors and Microprogressions that Lead to Student Success." This session focused on creating small, visible steps toward big learning goals so that students can see where they are, what end goals look like, and progress in between.

The second afternoon session, "Moving Forward with Reading in Oklahoma... Tying It All Together," was presented by Melissa Ahlgrim, director of reading sufficiency at the Oklahoma State Department of Education. In Oklahoma, there are several initiatives that address early literacy, including updates to the Oklahoma Academic Standards, new laws adressing dyslexia, and the Reading Sufficiency Act. Beyond Oklahoma, early literacy is a topic of national and international interest, prompting conversations about the science of how children learn to read. This presentation provided an overview of how the different initiatives in Oklahoma align with current research and work together to provide opportunities to increase positive reading outcomes for all students across the state.



### SEOSU LEVERAGES VIRTUAL REALITY FOR IMMERSIVE LEARNING

Southeastern Oklahoma State University (SEOSU) is partnering with OneNet to develop 50 virtual reality (VR) and responsive learning modules that will be introduced to all higher education in the state of Oklahoma. This project grew out of a collaboration between the State Regents' Council for Online Learning Excellence (COLE), OneNet and SEOSU.

SEOSU and OneNet's goal is to introduce VR technology into classrooms across Oklahoma, aligning with COLE's mission to empower excellence in online and hybrid learning experiences through a framework that grows knowledge networks and advances collaborative initiatives. The council works to enhance learning and build success for institutions, students and faculty.

Christala Smith, the director for SEOSU's Center for Instructional Development and Technology, met OneNet's executive director Von Royal at a technology meeting, where Ammon Smith with Smith Instructional Design and Technology LLC (Smith IDT) also participated in the discussion about new technologies. Through this engagement, Christala Smith developed her idea to utilize VR technology and 360-degree photography to develop interactive learning modules.

"Von and Ammon both shared presentations on Augmented Reality (AR) and VR for the Oklahoma Blackboard User Group, which sparked interest in how higher education might be impacted by that technology," Smith said. "Ammon showed me the updates to Adobe Captivate that allowed 360 images and videos to be incorporated into modules."

The VR and responsive learning modules cover subjects such as chemistry, computing, physical sciences, biology, occupational health and safety, music, criminal justice and communications. The virtual modules will allow students to experience learning environments such as chemistry labs from anywhere. Whether students are participating

in online learning or have accessibility needs, the modules will allow them to experience the classroom in a new way.

The blueprint of this project is that student workers are primarily handling the module development by applying skills in 360-degree photography, graphic design, instructional design, accessibility and Adobe Captivate.

"The students love that they are learning something new that is challenging and creative," Smith said. "They have done a great job at learning very quickly and have enjoyed sharing their work with others and telling people about what they are doing."

The students produced a video to share their experience and promote the project. <u>Watch</u> the video here.

By utilizing students and faculty, SEOSU's project design is saving higher education thousands of dollars in development costs. If the university utilized a commercial developer to fully develop these projects, the cost would be in the hundreds of thousands of dollars.

Faculty have also played a key role in developing the instructional component. Their participation has reduced the number of hours needed from a commercial development provider. Faculty have shown a high level of interest and passion in making progress toward these advanced technologies.

In addition to creating the modules, SEOSU is working with COLE to establish an instructional guide that explains how to use the 360-degree camera and Adobe Captivate to develop VR and responsive learning modules. This guide will empower other higher education institutions to replicate the process and seamlessly create their own learning modules. Smith envisions the modules being implemented at institutions across the state.

OneNet will help accomplish that vision. OneNet is providing storage for all of

the module source files and facilitating collaborative meetings among institutions. Other higher education institutions will have access to these files to create their own learning modules.

"We plan to help other institutions develop similar modules. In addition, I'd love to see higher education across Oklahoma flooded with these types of modules, for both face-to-face and online students," said Smith. "I hope that this technology is used to bring more interactive, immersive, and engaging learning experiences to classes and help students feel closer to the university and more involved in the learning experiences."

This project fuels a passion for new technologies for Royal, as well.

"OneNet is helping Oklahoma's higher education institutions take advantage of new technological resources and improve learning opportunities for our state's students," Royal said. "Advancing technology is OneNet's mission, and this project has been a perfect fit in furthering our vision for educational technologies in Oklahoma."

A new project with COLE grew out this partnership. Through COLE, OneNet is now offering VR technology toolkits that include a 360-degree camera, Captivate licenses and other equipment to higher education institutions to power the development of learning modules. Southwestern Oklahoma State University, Rogers State University, and the University of Central Oklahoma are already taking advantage of the VR toolkits to create new and exciting learning experiences. Oklahoma's entire higher education system will have the opportunity to benefit from the SEOSU and OneNet engagement.





## GRANT AWARD CONNECTS TWO ADDITIONAL CAMPUSES TO OKLAHOMA'S RESEARCH NETWORK

The National Science Foundation (NSF) has awarded the Oklahoma State Regents for Higher Education and OneNet a \$414,595 Campus Cyberinfrastructure (CC\*) grant to connect two more campuses to the OneOklahoma Friction Free Network (OFFN).

Administered by NSF's Office of Advanced Cyberinfrastructure, the CC\* grant program invests in campus-level cyberinfrastructure improvements for science applications and research projects.

The two-year grant award will connect Cameron University's Fires Innovation Science and Technology Accelerator (CU-FISTA) campus and Oklahoma City University (OCU) to the OFFN network.

"The State Regents are pleased to add these two Oklahoma campuses to the OFFN network," said Chancellor Glen D. Johnson. "These connections will expand research and education initiatives for faculty at these campuses. The grant also has a significant educational impact for a diverse student population, including first-generation college students."

OFFN is a 10 and 100 Gbps research network that provides higher education institutions with a dedicated route to internet and research networks that is much faster than traditional internet highways. This alternate pathway allows researchers to bypass slower traditional networks and transmit data at higher speeds. Previous NSF grant awards connected 17 research and regional universities to OFFN. This new award specifically targeted smaller institutions to expand their research and education initiatives.

"Cameron University is thrilled to partner with OneNet to join the OneOklahoma Friction Free Network to improve our cyberinfrastructure," said CU President John McArthur. "This opportunity will expand educational access for our students and faculty while increasing support for area defense industry partners."

"We are excited to join OFFN and for the potential it offers to our university for research and collaboration with other universities in the region," said Gerry Hunt, OCU's chief information officer. "The infrastructure from this grant provides exciting opportunities with many of our programs on campus. We are developing virtual reality projects in our Game Design and Animation program and elaborate data analytics projects in our business school, all of which require the transmission and sharing of enormous amounts of data. This network provides us the resources to pursue these projects and others in the future."

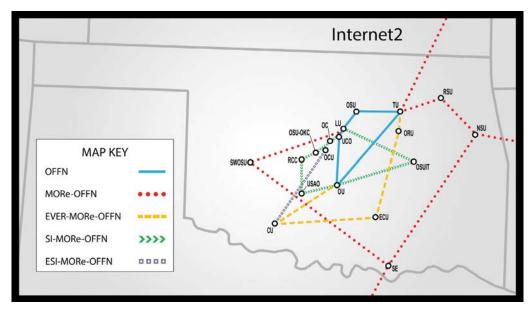
The award will be managed by OneNet, the comprehensive digital communications initiative of the state system of higher education. Vonley Royal, OneNet executive director and State Regents' chief information officer, will serve as principal investigator. Kelly McClure of CU will lead campus technology, and Jeff Price of OCU will lead research and education application

adoption. Brian Burkhart and Sky Pettett of OneNet will manage network technology implementation and training.

The project will make advanced cyberinfrastructure tools and services available to the two campuses and support a wide range of scientific disciplines, including engineering, economics, machine learning, game design and animation. The grant award also will fund optical fiber builds to both campuses, providing CU-FISTA with a 100 Gbps connection and OCU with a 10 Gbps connection to OneNet and the OFFN network.

"With this new funding from NSF, OneNet is bringing cyberinfrastructure resources to two more Oklahoma institutions to support scientific discovery and innovation," said Royal. "The high-speed connections, supercomputing resources and data transfer capabilities of the OFFN network will be a game-changer for researchers and students at these two campuses."





### **Oklahoma State Regents for Higher Education**



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