

iEXCEL, Future Kings collaborate to expand STEM education for teens

iEXCEL at the University of Nebraska Medical Center (UNMC) will bring virtual reality component to Future Kings's established STEM programs for underserved, secondary students.

UNMC's <u>iEXCEL</u> program is teaming with <u>Future Kings</u>, a Virginia-based not-for-profit, to boost technology, engineering and mathematics (STEM) education for elementary and high school-aged students from underserved communities in Omaha, Nebraska, and Northern Virginia.

iEXCEL will help expand virtual reality training and career exploration to Future Kings' established afterschool program, in which young participants explore exciting career opportunities in STEM. This partnership will serve as a potential national model as Future Kings and iEXCEL leverage the unique capabilities, stakeholders and skillsets of both institutions to enhance quality, reach and impact of respective and joint programming efforts.

"There is no greater gift we can give to our children than an exciting, efficient, effective and inspiring learning environment, said Arik King, EdD, executive director of Future Kings. "This collaboration is a step in that direction."

Pam Boyers, PhD, associate vice chancellor of iEXCEL, said UNMC was excited by the new collaboration, one of many the iEXCEL has put in place in the Omaha area, with organizations such as the Urban League of Nebraska and the Emerging Ladies Academy, to provide young men and women in the Omaha area greater access to STEM educational opportunities and career information.

"We fully support the extraordinary work being done by Future Kings," Dr. Boyers said. "We are fortunate to be able to join them in their quest to bring college-level training to students in secondary school. We believe that this partnership will help us make our educational content reachable to a broader audience."

The collaboration will:

- Expand STEM program opportunities and prepare girls and boys from underserved communities for post-high school careers;
- Strengthen existing and create new talent pipelines in STEM careers for both communities;
- Create new online health care curriculum utilizing visualization and virtual reality;
- Combine efforts to ensure rigorous, yet engaging educational content for learners;
- Research efficacy of outreach and STEM training methods in underserved communities;



- Promote diversity, equity and inclusion in health care, technology and STEM education; and
- Jointly seek funds to create a national model of using virtual reality to provide STEM opportunities to secondary students.

As part of the collaboration, iEXCEL will offer:

- In-person and virtual tours of the Davis Global Center highlighting health care education;
- Career exploration presentations with iEXCEL staff including simulation specialists, medical illustrators, computer programmers and more;
- 3D content creation tutorials;
- Virtual anatomy dissections, physiology pathways and workshops;
- Community fairs, career days and festivals with interactive activities; and
- Creation of virtual reality teaching modules that appeal to secondary level students.

As part of the collaboration, Future Kings will provide:

- Programs to teach college-level training in computer game design, cybersecurity, microbiology sciences, and unmanned aerial systems (UAS) engineering
- Virtual reality games for teaching microbiology topics
- Subject Matter Expertise (SME) in making college-level topics "reachable" to secondary students without reducing rigor or expected level of mastery

Future Kings joins a growing community of organizations iEXCEL has partnered with in Omaha and Nebraska dedicated to STEM education, including:

- AIM Institute removes barriers to tech education and careers (aiminstitute.org)
- Do Space community technology library (<u>dospace.org</u>)
- Emerging Ladies Academy empowering black girls in tech (emergingladiesacademy.org)
- Imagine Science inspiring the next generation of STEM leaders (imaginesci.org)
- Omaha STEM Ecosystem connecting education and business for workforce (<u>omahastem.com</u>)
- Prairie STEM accelerate STEM learning in underrepresented communities (prairiestem.org)
- University of Nebraska 4H empowering young people to be leaders (4h.unl.edu)
- Urban League of Nebraska social equality and economic independence (<u>urbanleagueneb.org</u>)

"Part of our mission at iEXCEL is to promote access to STEM education, especially to underserved communities," Dr. Boyers said. "Our work with Future Kings is another example of our outreach efforts as we work to help our partner organizations develop tomorrow's STEM innovators and leaders."

About FUTURE KINGS

Future Kings, Dumfries, Virginia, is a not-for-profit, IRS approved 501(c)(3) organization that has been serving boys of color from economically challenged communities since 2010. This is a unique, year-long afterschool educational program that guides young men in grades 6-12 from underserved communities to explore exciting career opportunities in science, technology, engineering, and mathematics (STEM). This includes a targeted focus on **cybersecurity**, **computer game design, biomedical sciences**, and **engineering.** Future Kings uses experiential learning and advanced STEM topics to teach creativity, leadership, community

service and entrepreneurship. Future Kings is an inclusive organization that also engages girls and boys from many backgrounds and nationalities.

About UNMC iEXCEL

iEXCEL at UNMC, Omaha, Nebraska, is a bold and visionary program at the University of Nebraska Medical Center purposefully designed to transform health professions education and offer unprecedented opportunities for research and development. The iEXCEL training model focuses on improving the outcomes of care by emphasizing interprofessional collaboration and experiential learning. iEXCEL offers a wide range of simulation technologies – including augmented and virtual reality (AR/VR). Since its inception, iEXCEL has become a key component of the region's tech-talent pipeline for workforce development. iEXCEL collaborates with countless local nonprofits, afterschool programs, school districts and educators at all levels to ensure students in the Omaha-metro area and greater Nebraska have a competitive edge to succeed in the careers of tomorrow.

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