



Research and creative activities featured at Undergraduate Scholars Showcase

by Megan Wieser
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EDWARDSVILLE - Outstanding research and creative activities were featured during Southern Illinois University Edwardsville's Undergraduate Scholars Showcase held Thursday, April 27, in the Morris University Center. The event highlighted the depth and variety of learning experiences offered through the University's Senior Assignment and Undergraduate Research and Creative Activities (URCA) programs.

More than 110 students, representing nearly 25 different programs, presented their work through live performances and displays, readings, and multimedia and poster presentations.

"This event offers a great opportunity for students to showcase the projects they've been working on through the semester, year, and in many instances, for several years," said Erin Behnen, assistant provost for academic innovation and effectiveness. "The Senior Assignment and URCA programs are high-impact practices that allow students to use their foundational academic knowledge to conduct active, applicable research projects and engage in creative activities. I am in awe of what our students have accomplished."

A team of electrical and computer engineering students featured their Senior Assignment, which was the creation of the LED Learning Guitar.

"The LED Learning Guitar helps ease the experience of learning to play guitar," said Nicholas Carter, of St. Charles, Mo. "Users can download a MIDI (musical instrument digital interface) file and import it, and then LEDs light up the next note or chord position for the song. The lights cover the first five frets, because those are generally where beginners start."

The research team from the School of Engineering comprised Carter, Dan Ashbaugh, of Altamont, Henry Rybolt, of Edwardsville, and Pete Weigel, of Belleville. They were inspired to create the Guitar Hero-style learning instrument through personal interest in guitar and a class they took on micro-controllers.

"All of us had taken that class where we learned to program things like this," explained Ashbaugh. "But, we hadn't yet been able to apply that skill in a real-world situation. This project created a bridge between our academic foundation and professional application."

Sarah O'Brien, an URCA Associate and senior in the College of Arts and Sciences' Department of Art and Design, showcased her intricate metalsmithing handiwork.

“A visiting artist inspired me a few years ago when she emphasized that the most important thing as an artist is to get good at something, so I decided to research inlay techniques,” O’Brien, a native of Flora, said. “Inlay is essentially embedding metal into metal, and I’ve learned seven different techniques.”

Her favorite technique is called “marriage of metals,” an extremely difficult and precise technique where she cuts a design out of one metal and inlays a perfectly matched cut from a different metal.

“The meticulous nature of metalsmithing appeals to me,” she said. “I’m incredibly excited to see where I go from here. I’ve been fortunate to have received strong mentorship from my professor, Aimee Howard. She has brought me to this level of work.”

Each participant in the Undergraduate Scholars Showcase received a certificate of achievement.

Southern Illinois University Edwardsville provides students with a high quality, affordable education that prepares them for successful careers and lives of purpose to shape a changing world. Built on the foundation of a broad-based liberal education, and enhanced by hands-on research and real-world experiences, the academic preparation SIUE students receive equips them to thrive in the global marketplace and make our communities better places to live. Situated on 2,660 acres of beautiful woodland atop the bluffs overlooking the natural beauty of the Mississippi River’s rich bottomland and only a short drive from downtown St. Louis, the SIUE campus is home to a diverse student body of more than 14,000.

