LANSING COMMUNITY COLLEGE
Where Success Begins

StarScapes

2014

Student Innovation and Creativity

Program

and

Project Descriptions

StarScapes:

LCC Student Innovation and Creativity Showcase
April 23-24, 2014

StarScapes is a showcase of creative, imaginative, novel, innovative, and interesting work produced by LCC students and provides an opportunity for students to share the exciting work that they are doing with the LCC community. Presentations include creative and research work produced for LCC classes, but also involve work developed through students' own independent study and research. This is an opportunity to share research, capstone presentations, honor's option projects or other creative, imaginative or interesting work that students have produced. Any student or group of students who pursued a research or creative project was invited to participate. Faculty sponsors were required.

Where possible, posters will be available for viewing throughout Wednesday and Thursday. Films and PowerPoint presentations will be played on a continuous rotating basis.

Thank you to all students and faculty that participated in this inaugural StarScapes event.

The StarScapes Steering Committee:

Molly Cryderman-Weber
Jeff Janowick
David Shane
Mindy Wilson
Tom Donaldson

Wednesday 10 am – 6 PM
Arts and Sciences room 111

10 am – 6 pm

Grant Winslow: The unknown: Scrap steel from the students steel dumpster, welded into imagination! *Sculpture display all day*

10 am – 12 noon

Nichole Coleman, Elizabeth Thompson, Rob Thomas, Jeff Cho, Zach Sokolowski: Lansing Community College Shigematsu Memorial Garden Plant DNA Barcoding: DNA analysis of plants from the Shigematsu Memorial Garden on LCC campus. The results we compared to a DNA subway database to see if we could verify exact identification of our species. *Poster*

Elizabeth Thompson, Nichole Coleman, Jeff Cho, Robert Thomas, Zachary Sokolowski: DNA Barcoding of Medical Marijuana: The purpose of this project was to determine whether different strains of medical marijuana currently being sold in Michigan could be differentiated using DNA barcoding. *Poster*

12 noon

Biance' Tolliver: Hopeless: An original piece of music written by myself. This song is very heart felt and so many people can relate. I was inspired to write this song after being happily in love for two years. Everything about this song "Hopeless" is amazing. *Vocal performance 12 noon and 3 pm*

12 noon – 1 pm

Frank Vaca and Gay Straight Alliance: Out at Work: What is the stigma associated with being lesbian, bisexual, transgender, and gay? What can be done to relieve the anxiety and emotional stress? Can you have a positive attitude about being open and affirming? My presentation will show how Role models are doing, what are some road traps on the way of successful you, and need for change. *Presentation*

1 pm – 2 pm

David Smalldon, Michael Lahner; Kevin Treman, and Luke Brown: TIME MACHINE is a film that we (LOST BACKPACK PRODUCTIONS) entered into the Capital City Film Festival in 2013. It placed in the top 10. Further, David will be presenting his own personal project that he created in PRODUCERS class. It is a silent film called THE DIRECTOR. *Film presentation, will then be shown throughout the rest of the program.*

2:30 pm – 3 pm

Zoe Webking, Sydney Kester and Jennifer Kanouse: The Motor City Project: A power-point presentation that depicts our class's work in the City of Detroit. As a group, we dedicated two days in March to do volunteer work with the non-profit organization, The Motor City Blight Busters. We also collected donations of clothing, seeds, gardening supplies and books. *Presentation*

3 pm – 4 pm

Brandon Johnson: Recent Applications of Nuclear Magnetic Spectroscopy for Chemistry Instruction at Lansing Community College. Preliminary results obtained using a newly acquired proton nuclear magnetic resonance spectrometer at Lansing Community College will be presented accompanied by an explanation of the underlying physical principles that form the basis of magnetic resonance experiments. Included will be a step-by-step

explanation of the usage of this NMR instrument, from inputting the sample to the final analysis of NMR spectrum. *Poster*

4 pm – 5 pm

Derek Gonyon, Alex Senita, and Thuyen Dang: DC Motors: How DC motors work and how changing there components affects the motor's performance. *Poster*

Joseph Gazall: Wave Interference: Our presentation will be a demonstration of how waves interfere with each other using a mock-up display of how airports use wave interference to land aircraft with low visibility. 2 Vernier vibrators are placed in a tub of water to simulate 2 sources of waves, and displays will point out and explain how they interfere with each other and how they apply to a real-life situation. *Demonstration*

Hilary Shepard, Koji Foreman, William Guthrie, Robbie Tarleton: Laser Refraction: Using a prism and three different laser lights, using refraction of the different light wavelengths to identify liquids and their concentrations. *Poster*

Joseph Brooks and Manuel Fores: How Does a Theremin Kit Work: We have a theremin kit. We will try to explain the physics behind it. *Poster*

Aaron Beavers: Augmented version of the Pelton Water Wheel: We will be showing how a Pelton Water Wheel incorporates the Physics Principle of Conservation of Energy. *Poster*

Barrett Compton, Sagar Dangal: Superposition of Waves App: We have created an application that demonstrates the constructive/destructive interference of sound waves. The app is a mathematical "calculator" that takes input data about two sound sources and listening position, visualizes the data and outputs the mathematical results. This should allow users to manipulate data and see the effects in a responsive way. *Presentation*

Jonathan Tyler, James Kramer, and Mark Tompkins: Magnetic Accelerator: We will demonstrate the use of solenoids to propel a ferromagnetic object down a tube. *Poster*

Thomas Emede, Nate Felldpausch: Polarization Stress Analysis: Poster to explain how to use the device and the physics behind it. Using polaroid sheets we will be able to see through refracted wavelengths of light how stress effects an object. *Poster*

Chris Harrington, Bobby Berry, Dakotah Baldwin: Sound Waves and Shutter Speeds: Using physics to explain the effect produced from running water through a hose attached to a speaker producing a certain frequency sine wave and filming it with a certain shutter speed. *Video with Poster*

Thursday 9 am – 5 PM
Arts and Sciences room 111

9 am – 5 pm

Grant Winslow: The unknown: Scrap steel from the students steel dumpster, welded into imagination! *Sculpture display all day*

Alyssa Dershem: Making Bonds, Giving Back to Motor City: LCC students in African American History, Political Science and World Religion courses participated in a service learning project to Detroit with Motor City Blight Busters. On two Saturdays in March, students volunteered their time and effort in cleaning up abandoned houses and vacant lots along with donating clothes, books and garden seeds to the local community. The

experience brought students together and opened their eyes to the needs of their local community. brought students together and opened their eyes to the needs of their local community. *Poster display only*

10 am – 11 am

Frank Vaca and Gay Straight Alliance: Out at Work: What is the stigma associated with being lesbian, bisexual, transgender, and gay? What can be done to relieve the anxiety and emotional stress? Can you have a positive attitude about being open and affirming? My presentation will show how Role models are doing, what are some road traps on the way of successful you, and need for change. *Presentation*

Hananiel Setiawan: **Nuclear Magnetic Resonance.** Nuclear magnetic resonance occurs when certain nuclei are confined in a static magnetic field. Nuclei that have the correct ratio of protons and neutrons precess about an axis aligned with the stronger external field at an angular frequency referred to as their Larmor frequency and they can absorb electromagnetic radiation pulses in the radiofrequency region with similar frequency. The precise absorption frequencies of these nuclei depend significantly on the electron environment surrounding them and thus, these frequencies can be correlated to molecular structure. This is the basis for the widely used technique of nuclear magnetic resonance spectroscopy. *Poster*

11 am – 12 noon

Michael Steibel: Toy Story: The performance recorded was during the fall 2013 Experimental Music Ensemble concert. Description: A musical piece that incorporates a narration and a toy instrument demonstration. Writing a piece of music for the LCC Experimental Ensemble based around the idea of Toy instruments developed during my Fall 2013 semester. The piece was inspired from a Music History Course, a LCC Radio Play, and a preexisting composition on a Ukulele. The music starts with the melody written on the ukulele. Then a narrator describes a series of toys and their history; the jaw harp, spoons, kazoo. After each description a demonstration of that toy was performed by one of the EME members. *Recording, musical performance*

12 noon – 2 pm

Darrol Hunt: MR. JELLYFISH is a music project featuring sci-fi themed lyrics, menacing vocals, and riff-laden distorted guitar, to create genre-fusing electric rock wrapped in a comic book veneer. Current endeavors for Mr. Jellyfish involve local LIVE performances of his 2011 album DEFENDER OF THE EARTH; writing and illustrating two graphic novels; music video productions; and pre-production for "canonizing" a previous album from 2005. *Performance*

Remi Devereaux, Lisa Andrews, Moriah Bender, Ciaron Hamilton, Kamine Nick-Hodges, Cedar Smith, Alex Malloy, and Devontaye Pruitt: Music Cultures Songs: This is a collection of short, original songs. Each song is based on a style or genre we learned about in Musical Cultures class, and the lyrics teach the audience about the style or genre represented. We will be singing about the following: plainchant, talking drums, and chorales. *Performance*

Erik Kupsis, Michelle Feckovic, Joshua Taylor, and Sara Wood: Innovative Instruments: For this project, we built new, innovative, and playable instruments to represent the main categories of the Hornbostel-Sachs taxonomy. The instrument categories represented include: idiophone, aerophone, membranophone, chordophone, and electrophone. *Demonstration*

3:30 pm

Elizabeth Bloom: Pursuing Answers: Stalking of Faculty by Students: This will be a version of the presentation that I did for the LAND conference in February. It is a PowerPoint presentation of the research paper (title above) I originally wrote for my Abnormal Psychology class (Fall, 2013). *PowerPoint presentation*

Faculty Innovation Sponsors:

Edwin Bryant

Molly Cryderman-Weber

Chris Edick

Anne Heutsche

Cesar Potés

Jane Repko

David Shane

John Stratton

Bonnie Sumbler

Marc Thomas

Delia Thrasher

Mindy Wilson

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