



**2018 Fall Undergraduate Research and Creative Activity Forum  
Thursday, November 15, 2018  
Clark Student Center**

**At a Glance**

Oral Presentations

Time	Session	Room
9:00 – 10:55 am	1A	Comanche Suites
10:00 -10:55am		Special Fain Elementary Presentations
9:00 – 10:15 am	1B	Kiowa
11:30 am – 1:30 pm	2A	Comanche Suites
11:00 am – 1:00 pm	2B	Kiowa
11:00 am – 12:40 pm	2C	Wichita I & II
1:00 – 2:30 pm	3B	Kiowa
1:30 – 3:30 pm	3A	Comanche Suites
2:45 – 3:15 pm	Break	Cheyenne

Poster Presentations  
Clark Student Center Atrium

Session	Time*	Poster No
I	9:00 -10:30 am	1-6
II	10:30-12:00 pm	7-12
III	12:00-1:30 pm	13-18
IV	1:30 - 3:00 pm	19-25
V	2:00 - 4:00 pm	26-33

\* Presenters must remain at their posters during evaluation session time.

Poster Hang times: Wednesday 3-7pm, Thursday 8:00-8:45

Presenters are responsible for hanging and removing their own poster. Presenters are asked to break down the poster stand when they remove their poster and put it away in the storage box in the UGR office as a courtesy.

Award Announcements  
5:00 pm  
Comanche Suites

## Oral Presentations

### **9:00-10:55 Session 1A Comanche Suites Moderator: Magaly Rincón**

**9:00- 9:25**

*The Effects of Childhood Trauma among College Students*

**Morelle McIntyre, Taylor Murphy, Cristina Muñoz and Shontay Tatum**

Mentor: Dr. Arumugham Packiaraj

### **Special Fain Elementary Presentations 10:00- 10:55**

**10:00**

*How to Enhance and Promote our “Fain-tastic” Neighborhood*

**Lawson Berend, Juliette Bindel, Georgia Humphreys and Cole Snodgrass**

2<sup>nd</sup> Grade, Fain Elementary. Mentor: Ms. Robbie Kelly

**10:15**

*Why is Wind Important as a Natural Resource?*

**Flora Berre, Reese Garner, Owen Davis, Alex Chase, Patrick Chavez, Aaiden Esquibel,**

**Onyx Reeder and Ian Harvey,** 3<sup>rd</sup> Grade, Fain Elementary. Mentor: Ms. Harley James

**10:30**

*Today a Reader, Tomorrow a Leader,*

**4<sup>th</sup> Grade, Fain Elementary.** Mentors: Ms. Lucy Alvarez, Ms. Jennifer Anderson, Ms. Tammie Tarver, and Ms. Laura Wetzell

**10:45**

*Launch into Learning*

**Paige Worley, Reagan Hicks, Shawn Chandler, Kyrie Ruiz and Violet Chavez**

5<sup>th</sup> Grade, Fain Elementary, Mentor: Mr. Frank Tarver

### **9:00 – 10:15 am Session 1B Kiowa Moderator: Melissa Nevins**

**9:00-9:25**

*Midwestern's O-Wa-Ki-Ya and the Feminist Rhetorical Perspective*

**Emma Labeledis,** English, Prothro-Yeager College of Humanities and Social Sciences

Mentor: Dr. Melissa Nivens

**9:30-9:50**

*Norton I, Emperor of the United States*

**Yujin Yoshimura.** Mentor: Dr. Whitney Snow

**9:55-10:15**

*A Synopsis of Ancient Africa*

**Kerdell Cuffy,** Mentor: Dr. Whitney Snow

**9:00 – 10:40 am Session 1C Wichita I & II. Moderator: Zeki Ilhan**

**9:05-9:25**

*A Pulley Based Movable Apparatus for the Biology Department*

**Johnny Cognasi, Jason Perkins, Joseph Randall and Melanie Ronoh**

Mentor: Drs. Jeong Tae Ok and Zeki Ilhan

**9:30-9:50**

*Study of Deflection in GPHE Products under Hydropressure*

**Chenai Sukume, Joseph Munholland, Brian Blair and Chengxiang Xiao**

Mentor: Dr. Salim Azzouz

**9:55-10:15**

*Arconic Engines - Dip Seal*

**Julie Goforth, Heather Goolsby, William Mendez and Khoa Tran**

Mentor: Dr. Salim Azzouz

**10:20-10:40**

*Multi-phase Flow Performance in the Wellbore*

**Abigail Reyes, Till Gebel, Tapiwa Gasseler and Abdulhadi Alsadi**

Mentor: Dr. Mahmoud Elsharafi

**11:30 am – 1:30 pm Session 2A Comanche Suites Moderator: George Liang**

**11:30-11:50**

*Design and Implementation of a Bionic Robot Arm*

**Nicholas Wolf, Michael Sweeting, Jomarie Leblanc and Omar Clarke,**

Mentor: Dr. Yu Guo

**11:55-12:15**

*PLC Operated Pick and Place Pneumatic Robotic Work Cell*

**Jenom Pyeng, Bryan Rutledge, Mi'kyle Percentie, Frankline Akech**

Mentor: Dr. Jan Brink

**12:20-12:40**

*Bionic Hand with Force Feedback*

**Kenneth Griffin, Constance Anih, Chance Craig, Dieonna George**

Mentor: Dr. Yu Guo

**12:45-1:05**

*Automated Pencil Sharpening Robotic Work Cell*

**Calvert Aaron, Parth Sagpariya, Jedeshkeran Chandrasegaran, Afolabi Adereti**

Mentor: Drs. Jan Brink and Yu Guo

**1:10-1:30**

*Mobile Wireless Surveillance System with Unpredictable Motion*

**Virgil Henry, Jewel Williams, Darrell Middlesworth, Mamgoree Sock**

Mentor: Dr. Sheldon Wang

**11:30 am – 12:40 pm      Kiowa      Session 2B      Moderator: Sally Henschel**

**11:30-11:50**

*Analysis of the Effect of Yeast Extract Content on Cell Surface Hydrophobicity of Candida albicans.*

**Melissa Rose**

Mentor: Dr. James Masuoka

**11:55-12:15**

*Reducing Chromosomal Antibiotic Resistance in Escherichia coli*

**Bethany Ann Russell,** Mentors: Drs. James Masuoka and Jon Scales

**12:20-12:40**

*Vegetation Analysis in Middle Holliday Creek Sub-watershed: Applications toward Lake Wichita Revitalization*

**Alex Nelson,** Mentor: Dr. Marcy Brown Marsden

**1:45 – 4:10 pm      Session 3A      Comanche Suites      Moderator: Claudia Montoya**

**1:45-2:05**

*Economic Impact of the SBDC at MSU on Regional Economic Growth*

**Simon Ospina,** Mentors: Drs. James Owen and John Martinez

**2:10-2:30**

*A Comparative Study of the Cashless Societies' Progress and their Efficiency*

**Shayne Matambanadzo,** Finance, Dillard College of Business Administration

Mentor: Dr. Qian Li

**2:35-2:55**

*An Empirical Analysis of the Effect of Remittances on Income Inequality, Education, and Health in Developing Countries*

**Hanna Gebel and Luka Gebel,** Mentor: Dr. Pablo Garcia-Fuentes

**3:00-3:20**

*What Are the Social Impacts of Technology on Middle School Students?*

**Jennifer Cope,** Mentor: Dr. Suzanne Lindt

**3:25-3:45**

*Meeting the Needs of Freshman in the Professional Programs of Education and Respiratory Care.* **Staci Morgan and Madison Dodd**/ Mentors: Drs. Suzanne Lindt and Jennifer Anderson

**3:50-4:10**

*Pre-Service Teachers Noticing of Struggling Students' Mathematical Thinking*  
**Connie Ginnings and Amanda Latham**. Mentors: Drs. Emily Rutherford and Dittika Gupta

### **Poster Presentations- Atrium**

Poster Hang times: Wednesday 3-7pm Thursday: 8:00-8:45 Frames are numbered and presenters are responsible for hanging and removing own poster.

Presenters must remain at their posters during their session.

Presenters will be required to break down the poster stand when removing poster.

#### **Session I 9:00 – 10:30 am**

- P1 *Periodic Motions in a Duffing Oscillatory Circuit*  
**Abigail Reyes and Tyler Cadette**, Mentor: Dr. Yu Guo
- P2 *Building a 2-DOF Duffing Oscillatory Circuit*  
**Rojitha Goonesekere and Abigail Reyes**, Mentor: Dr. Yu Guo
- P3 *Data Collection and Analysis from a Wind Turbine and a Photovoltaic Solar Panel*  
**Melanie Ronoh and Constance Anih**, Mentor Dr. Salim Azzouz
- P4 *UAV-based Autonomous Payload Delivery using Computer Vision*  
**Don Wijesinghe and Michael Sweeting**, Mentor: Dr. Yu Guo
- P5 *Building an Experiment Set-up to Analyze Different Types of Materials using a Portable Spectrometer.* **Brian Blair, Grantley Samuels**, Mentor: Dr. Salim Azzouz
- P6 *Energy from Saltwater Mud*  
**Kelton Vidal**, Mentor: Dr. Mahmoud Elsharafi

#### **Session II 10:30 am – 12:00 pm**

- P7 *Dynamic Filtration*  
**Jenom Pyeng, Tapiwa Gasseler, Jedeshkeran Chandrasegaran, Gayal Hewakuruppu**. Mentor: Dr. Mahmoud Elsharafi
- P8 *Comparison of Several Different Hydraulic Rapid/Traverse Feed Circuits*  
**Calvert Aaron**, Mentor: Dr. Jan Brink
- P9 *Robot Soccer Using Artificial Intelligence*  
**Joshua Washington and Carson Conrady**, Mentors: Drs. Yu Guo and Jeong Tae Ok

- P10 *Targeting the mdtE Gene of E. coli Via Cas9/CRISPR to Investigate its Role in Erythromycin Resistance*  
**Natalie Ragland and Anahi Palacios.** Mentor: Dr. Jon Scales
- P11 *Characterization of Escherichia coli Population Diversity in Locally Resident Canada Geese*  
**Tarrah Miller and Shanice Toussaint.** Mentor: Dr. James Masuoka
- P12 *A Study of the Effects of Ground Thyme on the Growth of Escherichia coli (E. coli)*  
**Venus Shirazy, Ila Y. Kamath, Mesonma A. Anwasi and Mikayla R. Bailey,** Hirschi HS. Mentors: Drs. Magaly Rincón-Zachary and James Masuoka

### **Session III 12:00-1:30 pm**

- P13 *Alteration of Mount Scott Granite as Determined by X-Ray Powder Diffraction*  
**Sonasha Gehashi Perera,** Mentor: Dr. Jonathan Price
- P14 *Hydration on Grand Anse Beach.* **Julianne Plambeck.** Mentors: Drs. Jennifer Anderson, Tammy Kurszewski and Michael Mills
- P15 *Programming Your Heart*  
**Julianne Plambeck and May Trinh,** Mentor: Dr. Tina Johnson
- P16 *Evaluation of Computer Performance*  
**Tyler Roop and Ravishka Rathnasuriya,** Mentor: Dr. Nelson Passos
- P17 *Deciphering the Mechanism of Protein Targeting Machinery in Chloroplasts*  
**Kameron Shrum and Tyler Jones,** Mentor: Dr. Fu-Cheng Liang
- P18 *Advanced Via Individual Determination (AVID) Program: High School Students' Perceptions.* **Hailey Hall.** Mentor: Dr. Packiaraj Arumugham

### **Session IV 1:30 – 3:00 pm**

- P19 *Mental Illness and the Right to Die*  
**James Lue and Mikaela Cloyd,** Mentors: Drs. Teresa Tempelmeyer and Beverly Stiles
- P20 *Physical Disability and Support for Right-to-Die: Selfishness and Religiosity as Predictors*  
**Andrew Coyne and Maggie Wyatt.** Mentor: Dr. Beverly Stiles
- P21 *Stress and Anxiety among College Students*  
**Caytlin Bronaugh, Colleen Browning, Amor Carrillo and Lauren Bagley**  
Mentor: Dr. Packiaraj Arumugham

- P22 *Conceal/Reveal*  
**Autumn Bellar, Tanner Slavens, Gwyndalyn Gonzalez, Samantha Mitchell and Patrick Rowland**  
 Mentor: Drs. Mandy Sedden, Kimberly Onstott, Catherine Prose and Morgan Page
- P23 *The Effects of a Bus on Social Lives*  
**Amanda Threlkeld, Alexandra Lewis and Brian Lang**  
 Mentors: Drs. Jennifer Anderson, Tammy Kurszewski and Michael Mills
- P24 *Nursing Students Attitude Towards Inter-professional Teams and Team Approach to Care.* **Tina Nguyen.** Mentor: Dr. Kathleen Williamson
- P25 *Empowering Patients to Reduce Lumbar Puncture Associated Spinal Headaches*  
**Stephanie Lindsay.** Mentors: Drs. Stephanie Baker and Robin Lockhart

**Session V--2:30 – 4:00 pm**

- P26 *Analysis of Consumption Patterns in Grenada*  
**Bailey Smoot, Rachel Morgan, Austin Martin**  
 Mentors: Drs. Anderson, Tammy Kurszewski and Dr. Michael Mills
- P27 *The Socio-emotional Contagion Effects in the Spread of Feminist Digilantism (The case of a Texas university): Literature review and Netnography.* **Justice Munroe**  
 Mentors: Drs. Niyati Kataria and Beverly Stiles
- P28 *Reverse Title IX*  
**Rebecca Goodman and Robert Kitchen.** Mentor: Dr. Sandra Shawver
- P29 *How Best to Learn World Languages Vocabulary: Comparing Published Research and Student Surveys*  
**Frida Arredondo.** Mentor: Dr. Jeffrey Oxford
- P30 *Movement in the Classroom- impact on Reading Fluency*  
**Gabrielle Browning.** Mentor: Dr. Emily Rutherford
- P31 *Annotated Translation of Zamyatin's We with Scholarly Apparatus*  
**Lane Riggs.** Mentor: Dr. Kirsten Lodge
- P32 *Classroom Management: Engaging Today's Students in the Elementary Classroom*  
**Mackenzie Barnard.** Mentor: Dr. Phillip J. Blacklock
- P33 *Three Phase Teacher Success Strategy Training Program: Persona Development, Entrepreneur Skills, and Organizational Administrative Skills*  
**Carl J. Alfert.** Mentors: Dr. C. Janise McIntyre, Daphney L. Curry and Emily K. Reeves