

# Be A Part Of Something...Bigger

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Student Research

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Conference



Conference date: Friday, April 29th. 12:30-7:30pm



Henson Science Hall, and Wicomico Room, Guerrieri Center



Info at [salisbury.edu/SUSRC](http://salisbury.edu/SUSRC)



Intent to submit: March 15th, 2016

# 15<sup>th</sup> Annual Salisbury University Student Research Conference

Friday, April 29, 2016

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## Conference Outline

**Welcome**                                      **Henson Science Hall**  
**12:30 p.m. - 1:30 p.m.**      Registration

**Oral Presentation**      **Henson Science Hall**                                      **1:30 p.m. – 5:45 p.m.**

**Session 1:**      **1:30 p.m. – 2:45 p.m.**      **Oral Research Presentations**

<u>Panel</u>	<u>Room</u>	<u>Title</u>
Round Table	HS 111	Moral
1A	HS 109	Culture
1B	HS 115	Diversity
1C	HS 211	Imaging
1D	HS 103	Perception
1E	HS 243	Vertebrata

**Session 2:**      **3:00 p.m. – 4:15 p.m.**      **Oral Research Presentations**

<u>Panel</u>	<u>Room</u>	<u>Title</u>
2A	HS 103	Disease
2B	HS 243	Organismal
2C	HS 211	Media
2D	HS 115	Medical
2E	HS 109	Insight

**Session 3:**      **4:30 p.m. – 5:45 p.m.**      **Oral Research Presentations**

<u>Panel</u>	<u>Room</u>	<u>Title</u>
3A	HS 103	Exercise
3B	HS 211	Investigate
3C	HS 109	Payloads
3D	HS 243	Flora
3E	HS 115	Software

### **Poster Presentation Session with Refreshments**

**Wicomico Room, Guerrieri University Center**

**6:00 p.m. – 6:30 p.m.**      Welcome with Opening Remarks, performance by Squawkapella

**6:30 p.m. – 7:30 p.m.**      Research Poster Displays, Refreshments, and Outstanding  
Research Mentor Award

*The Registration & Information table will be open:*

*12:30 p.m. - 4:30 p.m.                      Henson Hall Lobby*

*5:00 p.m. - 6:00 p.m.                      Guerrieri Center, Wicomico Room entrance*

## I. Registration and Welcome Reception

**12:30 p.m.-1:30 p.m. Henson Science Hall Lobby**

### *Information Table Moderators:*

*Tylor Claggett, Department of Economics and Finance*  
*Louise Detwiler, Department of Modern Languages and Intercultural Studies*  
*Suzanne Osman, Department of Psychology*  
*Hong Yao, Department of Economics and Finance*  
*Meghan East, Medical Laboratory Science Program*

## II. Oral Presentation Session

**1:30 p.m. - 5:45 p.m. Henson Science Hall Lobby**

### *Information Table Moderators and Back-up Panel Moderators:*

*Larence Becker, Department of Psychology*  
*Rhyannon Bemis, Department of Psychology*  
*Carolina Bown, Department of Modern Languages and Intercultural Studies*  
*Susan Brazer, Blackwell Library*  
*Christina Camillo, Department of Health Sciences*  
*Thomas Cawthern, Department of Geography and Geosciences*  
*Jessica Clark, Department of Biological Sciences*  
*Randall Cone, Department of Mathematics and Computer Science*  
*Jennifer Cox, Department of Communication Arts*  
*Priscilla Davis, Academic Affairs*  
*Tammy Donaway, Franklin P Perdue School of Business*  
*Elizabeth Emmert, Department of Biological Sciences*  
*Seth Friese, Department of Chemistry*  
*Toran Hansen, Department of Conflict Analysis and Dispute Resolution*

*James Hatley, Department of Environmental Studies*  
*Aaron Hogue, Department of Biological Sciences*  
*Catherine Jackson, Academic Affairs*  
*Amy Jones, Blackwell Library*  
*Derya Kulavuz-Onal, Department of English*  
*Yuki Okubo, Department of Psychology*  
*Sang-Eon Park, Department of Mathematics and Computer Science*  
*Sally Perret, Department of Modern Languages and Intercultural Studies*  
*Jing Quan, Information and Decision Sciences*  
*Eric Rittinger, Department of Political Science*  
*Aur lie Van de Wiele, Modern Languages and Intercultural Studies*  
*Beth Walsh, Graduate Studies and Research*  
*Mark Walter, Department of Psychology*  
*George Whitehead, Department of Psychology*

### ▪ **Round Table Discussion Session 1:30 p.m. – 2:45 p.m.**

**Henson Hall 111**

1:30 – 2:45      *What Makes You Moral?: The Role of Situation, Reason, and Emotion in Moral Decision Making*

**Cara Griffiths, Hailey Gibbs, Chris Markiewicz**

\*Faculty Mentor - Grace Clement, Philosophy



1:50-2:05	<i>A Digitally Enabled Device</i> <b>Joseph Clayton</b>	*Faculty Mentor - Eugene Hahn, Information and Decision Sciences
2:10-2:25	<i>Police Body Cameras: The Eyes of Truth and Justice</i> <b>Daniel Kellar</b>	*Faculty Mentor - Lauren Hill, Honors
2:30-2:45	<i>3D Printing: The Future</i> <b>Nick Larsen</b>	*Faculty Mentor - Eugene Hahn, Information and Decision Sciences

## 1D Perception

*Moderator: Timothy Werner, Department of Health and Sport Sciences*

1:30-1:45	<i>Does Fast or Slow Evaluation Foster Greater Certainty?</i> <b>LaCount Togens</b>	*Faculty Mentor - Larence Becker, Psychology
1:50-2:05	<i>Pre-traumatic Stress: A Critical Look at an Emerging Concept in Climate Change</i> <b>Ben Zito</b>	*Faculty Mentor - Karl Maier, Psychology
2:10-2:25	<i>SU to US: Is the Consensus on Climate Change Really What You Think It Is?</i> <b>Amber Lahay</b>	*Faculty Mentor - Karl Maier, Psychology

**1E    Vertebrata                      Henson Hall 243**

**Moderator: Jenny Toonstra, Department of Health and Sport Sciences**

1:30-1:45	<i>Using Microsatellites in Estimating Utility of Buccal Saliva Samples in Small Passerine Birds</i> <b>Andrew Caporaletti, Lauren Antal, Tami S. Ransom, Eric B. Liebgold</b> *Faculty Mentor - Eric Liebgold, Biological Sciences
1:50-2:05	<i>Genetic Diversity and Population Size of the Spotted Turtle (Clemmys guttata), on the Delmarva Peninsula</i> <b>Stephanie Lamb</b> *Faculty Mentor - Eric Liebgold, Biological Sciences
2:10-2:25	<i>Arboreal Ant Species Richness and Diversity of E.A. Vaughn Wildlife Management Area</i> <b>Emily Rowe</b> *Faculty Mentor - Dana Price, Biological Sciences
2:30-2:45	<i>How do Female Green Treefrogs (Hyla cinerea) Evaluate Advertisement Calls under Noisy Conditions?</i> <b>Matthew Murphy</b> *Faculty Mentor - Ryan Taylor, Biological Sciences

## ▪ Second Session 3:00 p.m. - 4:15 p.m.

### 2A Disease Henson Hall 103

*Moderator: Lincoln A. Gibbs, Department of Health and Sport Sciences*

- 3:00-3:15 *Avascular Necrosis of the Scaphoid Bone in a 19 Year Old Male Collegiate Baseball Player*  
**Deja Robinson**  
 \*Faculty Mentor - Jenny Toonstra, Health and Sport Sciences
- 3:20-3:35 *Postural Orthostatic Tachycardia Syndrome in an 18-year-old Female Volleyball Athlete*  
**Michael Szymanski**  
 \*Faculty Mentor - Jenny Toonstra, Health and Sport Sciences
- 3:40-3:55 *Mitochondrial Biogenesis and Exercise Mimetics*  
**Thomas Heinbockel**  
 \*Faculty Mentor - Scott Mazzetti, Health and Sport Sciences
- 4:00-4:15 *Genomic Screening for Exercise Rx Review: Potential Physiological and Psychological Impacts*  
**Zackary J. Valenti**  
 \*Faculty Mentor - Scott Mazzetti, Health and Sport Sciences

### 2B Organismal Henson Hall 243

*Moderator: Samuel Geleta, Department of Biological Sciences*

- 3:00-3:15 *Use of Genetic Markers to Detect Human and Gull Fecal Contamination in Local Environmental Water Samples*  
**Joshua LaMora**  
 \*Faculty Mentor - Mark Frana, Biological Sciences
- 3:20-3:35 *Guess Who's Coming to Dinner? Successional Patterns and Seasonal Diversity of Dung Beetles on Maryland's Eastern Shore*  
**Patrick Simons**  
 \*Faculty Mentor - Dana Price, Biological Sciences
- 3:40-3:55 *Antioxidant Effects of Nordihydroguaiaretic Acid on Oxidative Stress in *Caenorhabditis elegans**  
**Andrea Korell**  
 \*Faculty Mentor - Patti Erickson, Biological Sciences
- 4:00-4:15 *A Delicate Soundscape: Understanding Vessel Impact on the Behavior of Hawaiian Humpbacks*  
**Patrick Miller**  
 \*Faculty Mentor – Aaron Hogue, Biological Sciences

**2C Media Henson Hall 211****Moderator: Mou Chakraborty, Blackwell Library**

- 3:00-3:15 *Lights, Camera, Culture: Exploring Americans' Perception of French Cinema*  
**Caitlin Cleveland**  
 \*Faculty Mentor - Aurelie Van de Wiele, Modern Languages
- 3:20-3:35 *Smash, Street, Saracen: Portrayals of Adolescent Mentorship in the Show Friday Night Lights*  
**Amy Wible**  
 \*Faculty Mentor - Lance Garmon, Psychology
- 3:40-3:55 *Colors of India and Indian Cinema*  
**Krista Setera**  
 \*Faculty Mentor - Andrew Sharma, Communication Arts

**2D Medical Henson Hall 115****Moderator: Yoojin Choi, Department of Health and Sport Sciences**

- 3:00-3:15 *Lack of Available Dental Care on Campus*  
**Hussain Choudhary**  
 \*Faculty Mentor - Sarah Surak, Political Science
- 3:20-3:35 *Because Every Kid Deserves to Smile*  
**Anuradha Balaggan**  
 \*Faculty Mentor - Sarah Surak, Political Science
- 3:40-3:55 *Does MDMA-Assisted Psychotherapy Have A Place in Our Society?*  
**Lindsey Fultz**  
 \*Faculty Mentor - Claudia Morrison-Parker, Biological Sciences
- 4:00-4:15 *Physician Assisted Suicide: A National and Global Migration Redefining Patient, Physician, and Nursing Roles at the End-of-Life*  
**Kathleen Hogan**  
 \*Faculty Mentor - Katherine Hinderer, Nursing

**2E Insights Henson Hall 109****Moderator: Lori Carmack, Department of Mathematics and Computer Science**

- 3:00-3:15 *Perceptions of Mondrian*  
**Brooke Benz**  
 \*Faculty Mentor - J. Craig Clarke, Psychology

## ▪ Third Session **4:30 p.m. - 5:45 p.m.**

### **3A Exercise Henson Hall 103**

*Moderator: Karen Rayne, Department of English*

- 4:30-4:45      *Vestibular Rehabilitation in a 20y.o Female Volleyball Player*  
**Alison Mitchell**  
 \*Faculty Mentor - Jenny Toonstra, Health and Sport Sciences
- 4:50-5:05      *Titin: Structural or Contractile Protein?*  
**Samantha Guarnera**  
 \*Faculty Mentor - Scott Mazzetti, Health and Sport Sciences
- 5:10-5:25      *Inverse Relationship between C-reactive protein and Cardiorespiratory fitness level: influence of exercise intensity versus mode*  
**Nicholas Carlini**  
 \*Faculty Mentor - Scott Mazzetti, Health and Sport Sciences
- 5:30-5:45      *Legg-Calve-Perthes Disease*  
**Emily Bandier**  
 \*Faculty Mentor - Timothy Werner, Health and Sport Sciences

### **3B Investigate Henson Hall 211**

*Moderator: John LaManca, Department of Health and Sport Sciences*

- 4:30-4:45      *Comparison of Neural Network and Decision Tree Programs for Medical Diagnostics*  
**Emma Fare**  
 \*Faculty Mentor - Lori Carmack, Math and Computer Science
- 4:50-5:05      *Advanced Data Fusion: Optimized Stacked Moving Window Regression Analysis of Complex Infrared Spectra*  
**Richard Pearch, Tener Jenkins**  
 \*Faculty Mentor - Robert Luttrell, Chemistry
- 5:10-5:25      *A Review of Non-Small Cell Lung Cancer Post-Treatment Follow-up Imaging Procedures with PET/CT Scans Versus CT scans and the Effect on Patient Survival*  
**Samantha Maillie**  
 \*Faculty Mentor - Veera Holdai, Math and Computer Science
- 5:30-5:45      *De novo motif Finding to Identify a Consensus Binding Sequence for MYB and NFI*  
**Robert Phillips**  
 \*Faculty Mentor - Philip Anderson, Biological Sciences

### **3C Payloads Henson Hall 109**

*Moderator: Gaylord Robb, Blackwell Library*

- 4:30-4:45      *Balls Bouncing on Ramps and Curved Surfaces*  
**Iffat Sarfraz**  
 \*Faculty Mentor - Steven Hetzler, Math and Computer Science

- 4:50-5:05      *Transfer Payloads*  
**Chelsey Clement, Emily Marinucci**  
                                  \*Faculty Mentor - Randall Cone, Math and Computer Science
- 5:10-5:25      *A Special Case of the Converse to The Mean Value Theorem*  
**Graylon Wright**  
                                  \*Faculty Mentor - Kathleen Shannon, Math and Computer Science
- 5:30-5:45      *Packing Disks Optimally*  
**Sarah Confrancisco**  
                                  \*Faculty Mentor - Jeffrey Emmert, Physics

### **3D      Flora                                  Henson Hall 243**

***Moderator: Thomas Anderson, Department of Theater and Dance***

- 4:30-4:45      *Methods in Using Bdellovibrio bacteriovorus to Control Soft Rot in Carrots Caused by Erwinia carotovora*  
**Jennifer Krieck**  
                                  \*Faculty Mentor - Elizabeth Emmert, Biological Sciences
- 4:50-5:05      *A Functional Analysis of DUF1 in the Yeast Saccharomyces cerevisiae*  
**Rachel Keuls**  
                                  \*Faculty Mentor - Les Erickson, Biological Sciences
- 5:10-5:25      *A Two way street? Arabidopsis WDR20 Activates UBP3 and Interacts with Two E3 Ligases*  
**Andrew Baskerville**  
                                  \*Faculty Mentor - Les Erickson, Biological Sciences
- 5:30-5:45      *Enhancement of Folate Levels in Plants via a Methylo-trophic Symbiont*  
**April Demell**  
                                  \*Faculty Mentor - Mark Holland, Biological Sciences

### **3E      Software                                  Henson Hall 115**

***Moderator: Lance Garmon, Department of Psychology***

- 4:30-4:45      *Cellular Automata Software*  
**Lena Ferreira**  
                                  \*Faculty Mentor - Michael Bardzell, Math and Computer Science
- 4:50-5:05      *Analysis of Clusters Formed by Diffusion-Limited Aggregation*  
**Louise Coltharp**  
                                  \*Faculty Mentor - Jeffrey Emmert, Physics
- 5:10-5:25      *Building a Cloud Chamber Using Modern Methods*  
**Rainor Connor**  
                                  \*Faculty Mentor - Jeffrey Emmert, Physics

5:30-5:45 *Fractals Hidden in the Dynamics of the Compound Double Pendulum*  
**May Palace**

\*Faculty Mentor - Jeffrey Emmert, Physics

### III. Poster Presentation Session

**6:00-7:30pm Wicomico Room, Guerrieri University Center**

#### ***Poster Room Set-up Volunteers***

*Vicky Adeniran, University Dining Services*  
*Rachel Buchanan, Department of Social Work*  
*Haleigh LaChance, Graduate Studies and Research*  
*James Parrigin, Blackwell Library*  
*Jessica Scott, Graduate Studies and Research*  
*Carrie Tingle, University Analysis, Reporting, and Assessment*

#### ***Information Table Moderators***

*Cecilia Acocella, Department of Psychology*  
*Jim Forte, Department of Social Work*  
*Echo Leaver, Department of Psychology*  
*Megan Mahedy, Salisbury University Flyer*

1. *Camera Trap Effectiveness Correlated with Human Activity at the Asa Wright Nature Centre (Trinidad & Tobago W.I.)*

**Michael Flack, Elspeth Schalk, Nick Odachowski**

\* Faculty Mentors - Reema Persad-Clem, Biological Sciences  
 Tami Ransom, Biological Sciences

2. *The Relationship between Healthy Behaviors, Stress, and Academic Success in Undergraduate Nursing Students*

**Allison Hiken, Ali Zentgraf, Cassandra D. Sowah, Jenniffer C. Castro, Lacey I. Monahan**

\* Faculty Mentor - Katherine Hinderer, Nursing

3. *LGBTQ(IA) and Victimization*

**Grace Mburu, Jon Kidd**

\* Faculty Mentor - Diane Illig, Sociology

4. *The Effects of Divorce on Children and Family Structure*

**Kendra Bailey**

\* Faculty Mentor - Diane Illig, Sociology

5. *Optimal Investment Strategy*

**Christy Bertolaccini**

\* Faculty Mentor - Robert Tardiff, Math and Computer Science

6. *Are your Attitudes based on Political Preferences or Facts?*

**Melissa Adkins, Mark Walter**

\* Faculty Mentor - Mark Walter, Psychology

7. *Spatial Analysis of Land use and Water Chemistry in the Chesapeake Bay Watershed*

**Carl Flint**

\* Faculty Mentor - Arthur Lembo, Geography and Geosciences

8. *Developing Students' Conceptual Understanding of Place Value and Decimals*  
**Gilberte Hitchens**  
 \* Faculty Mentor - Claudia Burgess, Teacher Education
9. *Clustering Algorithms for Large-Scale Graphs Using MapReduce*  
**Stephen Krucelyak**  
 \* Faculty Mentor - Enyue Lu, Math and Computer Science
10. *Jewels of the Arthropod World*  
**Caitlin Nicodemi, Brittany Knight**  
 \* Faculty Mentor - Dana Price, Biological Sciences
11. *Genetic Diversity of the Endangered Tiger Salamander (*Ambystoma tigrinum*) in Maryland*  
**Madeline Joyner, Jessica Tague**  
 \* Faculty Mentor - Eric Liebgold, Biological Sciences
12. *The Syrian-Iraqi Diaspora: Transnationalism in Refugee Communities*  
**Gale Farquhar**  
 \* Faculty Mentor - Elizabeth Ragan, History
13. *The Rules and Challenges of Classroom Management for Secondary Student Interns*  
**Sarah Bentivenga**  
 \* Faculty Mentor - Ron Siers, Education Specialties
14. *Differences in Invertebrates between Nesting and Non-Nesting Habitats of Ovenbirds and Worm-eating Warblers*  
**Eaqan Chaudhry**  
 \* Faculty Mentor - Eric Liebgold, Biological Sciences
15. *Incarceration & Addiction: The Drug Court Perspective*  
**Meredith Kushner**  
 \* Faculty Mentor - Timothy Dunn, Sociology
16. *Using Facial Recognition Software to Identify Individual Lumholtz's Tree Kangaroos (*Dendrolagus lumholtzi*) (LTK)*  
**Chase Douglas**  
 \* Faculty Mentor - Tami Ransom, Environmental Studies
17. *Rape Acknowledgement Status and Timing Predicting Body Shame*  
**Carolyne Merwin, Suzanne Osman**  
 \* Faculty Mentor - Suzanne Osman, Psychology
18. *Camera Trap Surveying of Nocturnal Species and Species Richness in Costa Rica*  
**Sierra Crist**  
 \* Faculty Mentor - Eric Liebgold, Biological Sciences
19. *A GIS Multi-Criteria Model to Identify Optimal Locations for a Farm-Based Centralized Anaerobic Digester System for Distributed Power Generation*  
**Margaret Cummings**  
 \* Faculty Mentor - Arthur Lembo, Geography and Geosciences
20. *A Qualitative Synthesis of Teaching of Psychology Scholarship of Teaching and Learning: What Do Students Say They Gain from Classroom Activities?*  
**Celeste Welch, Lisa Dixon, Thomas J. Tomcho**  
 \* Faculty Mentor - Thomas Tomcho, Psychology

21. *A GIS Based Multi-Criteria Model to Identify Potential Annual Marine Sanctuaries in the Chesapeake Bay for Migrating Trichechus manatus latirostris (Florida Manatee)*  
**Christopher Kephart**  
 \* Faculty Mentor - Arthur Lembo, Geography and Geosciences
22. *Herpetological Study of Poplar Island*  
**Matthew Houlihan, Natalie Cieri, Jillian Kane, Megan Sedon, Stephen Wrzosek**  
 \* Faculty Mentor - Tami Ransom, Environmental Studies
23. *An Analysis of the Role Informal Education in Shaping the Geographic and Environmental Perceptions of First-Year College Students*  
**Anuradha Joshi, Austin Barefoot**  
 \* Faculty Mentor - Mara Chen, Geography and Geosciences  
 Gina Bloodworth, Geography and Geosciences
24. *High-throughput, Fluorescent Analysis of Reactive Oxygen Species in C. elegans after Knockdown of Mrck-1*  
**Callista Brown, Ruth C. Heying**  
 \* Faculty Mentor - Patti Erickson, Biological Sciences
25. *Generating Electricity via Changes in Humidity Using Bacillus Subtilis Spores*  
**Kevin Ettz, Robert McFarland, Joshua Phillips**  
 \* Faculty Mentor - Matthew Bailey, Physics
26. *A GIS Based Approach for Assessing the Effect of Wildfires on Water Quality In California*  
**Caitlin Curry**  
 \* Faculty Mentor - Arthur Lembo, Geography and Geosciences
27. *GIS and Regression Analysis to Determine the Influence of Land Cover/Land Use on Nutrient Loading within a watershed on Maryland's Eastern Shore*  
**Jordan Roose**  
 \* Faculty Mentor - Judith Stribling, Biological Sciences
28. *The Geography of War: Modern Applications of Drone Technology*  
**Tyler Wilson**  
 \* Faculty Mentor - Keota Silaphone, Geography and Geosciences
29. *Interventions in Clinical Psychology: A Meta-analysis*  
**Gabrielle McClelland, Leigh Anne Flounlacker, Ashley Zitter, Rachel Silverstein, Thomas J. Tomcho**  
 \* Faculty Mentor - Thomas Tomcho, Psychology
30. *Spatial Autocorrelation of Human Development Patterns Across Brazilian Governmental Administrative Divisions, 1991-2010*  
**Connor Kaempfer**  
 \* Faculty Mentor - Gina Bloodworth, Geography and Geosciences
31. *Covariate Use in Psychological Intervention Research: A Content Analytically Derived Taxonomy*  
**Rachael Hockenbery, Jessica Lilly**  
 \* Faculty Mentor - Thomas Tomcho, Psychology
32. *The Effects of Deforestation on Bird Species in Charles County, Maryland from 2002-2010*  
**Jessica Almaraz**  
 \* Faculty Mentor - Arthur Lembo, Geography and Geosciences

33. *Evaluating the Impact of Forest Cover Change and Pasture Development on Dry Season Stream Discharge Rates in Rondonia, Brazil 1985 - 2013*  
**Jeffrey Scarmazzi**  
\* Faculty Mentor - Arthur Lembo, Geography and Geosciences
34. *Using a GIS Based Multi-Criteria Model to Identify Optimal Habitats in Oregon for the Spotted Owl*  
**Jessica Molnar**  
\* Faculty Mentor - Arthur Lembo, Geography and Geosciences
35. *Utilization of Radial Line of Sight Analysis in Conjunction with GeoPDF to Provide Optimal Site and Waypoint Selection in Military Route Planning*  
**Austin Barefoot**  
\* Faculty Mentor - Arthur Lembo, Geography and Geosciences
36. *Historical and Synoptic Precipitation Climatology of Maryland from 1950-2014*  
**Walker Skeeter**  
\* Faculty Mentor - Darren Parnell, Geography and Geosciences
37. *Spatial Analysis of Tornado Tracks in Mississippi, 1955-2014*  
**Sergey Mazz**  
\* Faculty Mentor - Arthur Lembo, Geography and Geosciences
38. *Why You Should Care?: Making a Change through Voter Education*  
**Jana Wallen, Emily Rittenour**  
\* Faculty Mentor - Alexander Pope IV, Teacher Education
39. *Stress Reduction based on a Musical Intervention*  
**Brenna Hearn, Rebecca Warfield, Echo E. Leaver, Veronica Fallon**  
\* Faculty Mentor - Echo Leaver, Psychology
40. *Undergraduate Research Offices at 580 Master's level Universities: Prevalence Rates, Common Content, and Best Practices*  
**Rachel Lingenfelter, Cara Griffiths**  
\* Faculty Mentor - Thomas Tomcho, Psychology
41. *Exploring the Gap in Research on Writing Center Consultants*  
**Nicole Demme**  
\* Faculty Mentor - Nicole Munday, English
42. *Bdellovibrio bacteriovorus as a Biocontrol Agent against Blackleg Disease in Potatoes*  
**Rebecca Paulis**  
\* Faculty Mentor - Elizabeth Emmert, Biological Sciences
43. *Analysis of Trichloroethylene in Groundwater*  
**Christine Timko, Roxana Chin Fo Sieeuw**  
\* Faculty Mentor - Anita Brown, Chemistry
44. *Visual Storytelling as Scientific Communication in Psychology: Posters*  
**Jessica Lilly, Kenneth Rhoads, Melissa Adkins, Gregory Bisset, Selaina Hopkins**  
\* Faculty Mentor - Thomas Tomcho, Psychology
45. *Cultivating Civic Engagement: Implementing a Service Learning Curriculum at Salisbury University*  
**Katherine Potvin**  
\* Faculty Mentor - Alexander Pope IV, Teacher Education

46. *The Wehmueller Conjecture***Moriah Goodnow**

\* Faculty Mentor - Lee May, Math and Computer Science

47. *A GIS Analysis of the Impacts of Climate Change on Flood Risks for Communities in Anne Arundel County, Maryland***Suzanne Ketcham**

\* Faculty Mentor - Michael Scott, Geography and Geosciences

48. *The Effect of Induced Hyperglycemia on Dorsal Root Ganglia and Sensory Nerves in Zebrafish***Hannah Ennerfelt**

\* Faculty Mentor - Jessica Clark, Biological Sciences

49. *Developing Fourth Grade Students' Multiplicative Thinking***Michelle Ott**

\* Faculty Mentor - Jennifer Bergner, Math and Computer Science

50. *Neural Specializations in Birds Based on Embryological Brain Development***Megan Miller, Jana Wallen**

\* Faculty Mentor - Jeremy Corfield, Biological Sciences

51. *Philosophy: A Catalyst for Self-Authorship?***Christopher Markiewicz**

\* Faculty Mentor - Larence Becker, Psychology

52. *Genetic Identification of Brewing and Wild Yeast***Lauren DeLong, Joe Perucci**

\* Faculty Mentor - Les Erickson, Biological Sciences

53. *Updated Records and Species Re-description of Capsaloides cornutus, a Monogenoid Parasite of Atlantic Billfishes***Logan Grant**

\* Faculty Mentor - Ann Barse, Biological Sciences

54. *Food Deserts in Maryland***Kellsey Plude, Robert Allard**

\* Faculty Mentor - Diane Illig, Sociology

55. *Raising Awareness on Campus Energy Consumption***Maya Alexander, Karina Norwood**

\* Faculty Mentor - Alexander Pope IV, Teacher Education

56. *Philosophy, Art and Education Posters from the John Dewey Society***Denel Robin**

\* Faculty Mentor - Timothy Stock, Philosophy

57. *Molecular and Morphological Identification of Larval Echinostomes in the Mud Snail, Ilyanassa obsoleta, and Ribbed Mussel, Geukensia demissa, in a Delaware Salt Marsh***Marissa Moran, Reva Scheibner**

\* Faculty Mentor - Ann Barse, Biological Sciences

58. *Oral Health is Necessary in Salisbury's 'Fit Well' General Education Class***Julia Morrison, Anuradha Balaggan, Hussain Choudhary**

\* Faculty Mentor - Sarah Surak, Political Science

59. *Leaf Cutter Ants of Trinidad*

**Daniel Keller**

\* Faculty Mentor - Tami Ransom, Environmental Studies

60. *3D Printed Project Using Arduino*

**Justin Coles, Tasdiq Chowdhury, Caitlin Hamlet**

\* Faculty Mentor - Eugene Hahn, Information and Decision Sciences

61. *Experimental Rigor in Psychology Scholarship of Teaching and Learning: A Content Analysis*

**Nicole Confer, Isaiah Crisp, Elana Greene, Shannon Maio**

\* Faculty Mentor - Thomas Tomcho, Psychology

62. *Design and Synthesis of Selective Ligands for Dopamine D5 Receptors*

**Payam Shoureshi, Aristotelis Zografos**

\* Faculty Mentor - Jose Juncosa, Chemistry

63. *Implementing Extrusion Based Technology to 4D Print Thermally Activated Hinges*

**Alina Vartan**

\* Faculty Mentor - Joseph Howard, Physics

64. *Differential Movements and Home Ranges in Two Color Morphs of the Red-backed Salamander*

**Alexa Grant**

\* Faculty Mentor - Eric Liebgold, Biological Sciences

65. *Applications of Machine Learning Algorithms in Two-Player Perfect Information Board Games*

**Colleen Rogers**

\* Faculty Mentor - Steven Lauterburg, Math and Computer Science

66. *Associations of Mindfulness with Resilience and Rumination in a U.S. Adult Sample*

**Henry Vinyard**

\* Faculty Mentor - Karl Maier, Psychology

67. *Music Therapy: Mood as a Symptom of Depression*

**Ashley Nash**

\* Faculty Mentor - William Folger, Music

68. *Graphs in Psychological Statistic Textbooks: A Content Analysis*

**Ginetta Ricci, James Whitney, Greg Bisset**

\* Faculty Mentor - J. Craig Clarke, Psychology

69. *Philosophy in Schools: Engaging with Salisbury's Youth*

**Alaina Gostomski, Morgen Howell**

\* Faculty Mentor - Cristina Cammarano, Philosophy

70. *Phenotypic Characterization of LRS1-2 Mutants in Arabidopsis thaliana*

**Brittney Lozzi**

\* Faculty Mentor - Patti Erickson, Biological Sciences

71. *Scale-dependent Responses to Forest Structure in Two Ground-nesting Warblers*

**Ravyn Saunders**

\* Faculty Mentor - Eric Liebgold, Biological Sciences

72. *Glowstick Attraction of Tiger Salamanders*

**Ian Harrison**

\* Faculty Mentor - Eric Liebgold, Biological Sciences

73. *John Dewy, in Schools.*

**Alaina Gostomski, Darian Mullikin**

\* Faculty Mentor - Cristina Cammarano, Philosophy

74. *Using Public Input to Design Science Exhibits that Excite and Promote Public Understanding of Invasive Species*

**Madeline Kelsey**

\* Faculty Mentor - Sarah Surak, Political Science

## IV. Outstanding Research Mentor Award

The Salisbury University Student Research Conference Committee is pleased to announce the Outstanding Research Mentor Award at the poster session to be held from 6:00-7:30pm in the Wicomico Room (Guerrieri Center). This award celebrates faculty mentors who have proven excellent supervisors of student research or creative work. **The 2016 Outstanding Research Mentor Award Nominees are:**

Carolina Bown – Modern Languages

Chrys Egan – Communication Arts

Les Erickson – Biology

Stuart Hamilton – Geography

Veera Holdai – Math & Computer Science

Scott Mazzetti – Health and Sport Sciences

Brandye Nobiling – Health and Sport Sciences

Tom Tomcho – Psychology

Hong Yao – Economics and Finance

## V. Outstanding Student Research

Salisbury University's commitment to student research is evident in both the number and quality of the presentations at our annual student research conference. However, many of our students are being recognized for their work in off-campus settings. The following are highlights from Salisbury University students during the last year.

### Student Publications

Emma Albright, Kyle Bowen and Diane Davis published "'OneScreen' Drug Test Devices: Adulterant Effects and Untrained Subject Use" in *Clinical Laboratory Science* 29(1) pp 9-15 Winter 2016.

Kristen Kent and Ebony Hitch published "Journey to Centers in the Core" in *Mathematics Teaching in the Middle School*, December 2015.

Ruby Orth published "Perpetration Experience and Gender Predicting Empathy with a Stranger or Acquaintance Rapist" in *Modern Psychological Studies*, 2015.

### Student Presentations

Ben Van Bloom presented "Marcuse and the Gwangju Uprising" at the 2015 International Herbert Marcuse Society Conference. Salisbury, MD. November 12-14, 2015.

Matthew Bowler, Randi Manchak, and John Z. Thomas presented "Development of an Improved Synthesis of the Anti-migraine Drug Olcegepant" at the National Organic Chemistry Symposium, University of Maryland-College Park, June 28 2015.

- Tyler Buchanan presented "Geological M'APP'ing Maryland's Road Outcrops" at the Fall Meeting of The Geological Society of America, Baltimore, MD, November 2015.
- Jaime Butler and Delmar Nelson presented "Seventh-grade students' learning of probability and statistics" at the Annual Conference of the National Association of Professional Development Schools, Washington, D.C., March 2016.
- Caitlin Cleveland presented "Lights, Camera, Culture: Exploring Americans' Perception of French Cinema" at National Conference on Undergraduate Research, Asheville, NC, April 2016.
- Louise Coltharp presented "Effect of Starting Location on Clusters Formed by Diffusion-Limited Aggregation" at National Conference on Undergraduate Research, Asheville, NC, April 2016.
- Mariama Diallo and AH Dewald presented "Investigating Anomalies in Outer Membrane Protein Folding: Folde Aggregate and Phantom OmpA" at the Undergraduate Research Symposium in the Chemical and Biological Sciences, UMBC, Baltimore, MD, October 2015.
- Noel Dunfrene presented "An Analysis of Repression of Upward Mobility Today and its Connection to Feminism: Through the Eyes of Marcuse" at the 2015 International Herbert Marcuse Society Conference. Salisbury, MD. November 12-14, 2015.
- Veronica Fallon presented "EEG and EDA Measures of Stress Reduction in Response to Music." at the Society for Psychophysiological Research annual meeting, Seattle, WA. September 2015.
- Silviya Gallo presented a poster "Fourth-grade students' learning of multiplication" at the National Conference on Undergraduate Research, Asheville, NC, April 2016.
- Hailey Gibbs (along with faculty mentors Echo Leaver, Rhyannon Bemis, and Cristina Cammarano) presented "Does Frequent Relocation in Childhood Influence Personality Development?" at the Eastern Psychological Association annual meeting, New York, NY, March 2016.
- Stephanos Gozali, Mark Culver, and AH Dewald presented a poster "Aggregate, Associate, or Fold? Assessing OMP Fates in Various Liposome Environments" at the Membrane Protein Folding Gordon Research Conference (GRC) in Chatham, MA, June 2015.
- Jill Hitchens presented "Fifth-grade students' learning of number and operation in base 10" at the Annual Conference of the National Association of Professional Development Schools, Washington, D.C., March 2016.
- Stephen Krucelyak presented a poster "Clustering Algorithms for Large-Scale Graphs Using MapReduce" at National Conference on Undergraduate Research, Asheville, NC, April 2016.
- Megan Mahedy presented a poster "Food-Based Interventions: Improving Childhood Nutrition and Deficiency Rates in Uganda" at National Conference on Undergraduate Research, Asheville, NC, April 2016.
- Jenny McFadden and Christine Taylor (along with faculty mentor Judith Franzak) presented "Investigating Reading Capital in Rural Literacy Learning Contexts" at the Conference on English Education (CEE), through the International Federation of English Teachers (IFTE) in the Bronx, NY, July 2015.
- James McGall presented a poster "The MaGIXS Sub-Grating Diffraction Experiment and its Implications for Instrument Integration and Alignment" at the American Geophysical Union Conference in San Francisco, PA, December, 2015.
- Karina Norwood presented "Marcuse and Education Today" at the 2015 International Herbert Marcuse Society Conference. Salisbury, MD. November 12-14, 2015.
- Sarah Ober presented a poster "Known Structure/Unknown: Characterization of 3GBH" at National Conference on Undergraduate Research, Asheville, NC, April 2016.
- Jacob O'Neil presented "Is Going 'Green' Enough?: An Analysis of Environmental Discourse within the 'Green' Ideology" at the 2015 International Herbert Marcuse Society Conference. Salisbury, MD. November 12-14, 2015.

- Ruby Orth presented "Predicting Empathy with a Rapist Based on Type of Sexual Perpetration Experience" at the Eastern Psychological Association annual meeting, New York, NY, March, 2016.
- Michelle Ott presented "Developing fourth-grade students' multiplicative thinking" at the Council on Undergraduate Research: Research Experiences for Undergraduates Symposium, Arlington, VA, October 2015.
- Michelle Ott presented "Fourth-grade students' learning of operations and algebraic thinking" at the Annual Conference of the National Association of Professional Development Schools, Washington, D.C., March 2016.
- Michelle Ott presented "Developing fourth-grade students' multiplicative thinking" at the National Conference on Undergraduate Research, Asheville, NC, April 2016.
- Carolynne Paige Merwin presented "Rape Acknowledgement Status and Timing Predicting Body Shame" at the Eastern Psychological Association annual meeting, New York, NY, March 2016.
- Marguerite Pedersen presented "Songs Protest and Comfort: The Response of Japanese Female Workers to Dehumanization in Textile Mills" at National Conference on Undergraduate Research, Asheville, NC, April 2016.
- Marguerite Pedersen presented "I'll Drink to That! : German Beer Gardens and the Transformation of the Beer Culture in America" at National Conference on Undergraduate Research, Asheville, NC, April 2016.
- Heather Porter, Courtney Harned and Christine Taylor (along with faculty mentor Judith Franzak) presented "Investigating Reading Capital in Rural Literacy Learning Contexts" at the American Education Research Association (AERA) in Washington, DC, April of 2016.
- Felicia De Peña presented "The Tale of the Hidden Assemblage: Native American Tools and Debitage at the Makemie Monument Park Colonial Excavations" at the Middle Atlantic Archaeological Conference annual meeting, Ocean City, MD, March 2016.
- Anthony Reeves presented "Capitalism and Reform: The Occupy Movement" at the 2015 International Herbert Marcuse Society Conference. Salisbury, MD. November 12-14, 2015.
- Colleen Rogers presented a poster "Parallel Computing for Simultaneous Iterative MIMO Tomographic Image Reconstruction by GPUs" at National Conference on Undergraduate Research, Asheville, NC, April 2016.
- Walker Skeeter presented a poster "Synoptic Analysis of Intense Precipitation Events in Maryland from 1950-2014" and won 2nd place in the student poster competition at the Annual Meeting of the Pennsylvania Geographic Society, West Chester, PA, November 2015.
- Kaitlin Traube presented a poster "Developing Students' Understanding of Fraction Addition" at National Conference on Undergraduate Research, Asheville, NC, April 2016.
- Madison Weinberg presented "A Marcusean Perspective on Retirement Rates After the Financial Crisis of 2008" at the 2015 International Herbert Marcuse Society Conference. Salisbury, MD. November 12-14, 2015.

### **Student Awards, Honors, and other Activities of Distinction**

- Ryan Dennis, "Are There Any Significant Snowfall Differences Throughout Harford County, Maryland?" won 1st place in the student paper competition at the 2015 Annual Meeting of the Pennsylvania Geographic Society, West Chester, PA, November 2015.
- May Palace completed a summer REU project investigating vortex oscillations in superfluid helium at the University of California, Davis, 2015.

## VI. Acknowledgements

- **Posters, T-Shirts, & Program Cover:**  
Aiyana Scarborough, Allison Seth, Paul Flexner
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Vinita Agarwal (*Communication Arts*), Yvonne Downie (*Perdue School of Business*), Scott Mazzetti (*Health and Sport Sciences*), Dana Price (*Biological Sciences*), Dean Ravizza (*Health and Sport Sciences*), Kimberly Van Vulpen (*Social Work*), Christy Weer (*Perdue School of Business*)
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Diane Allen, *Provost*  
Jason McCartney, *Interim Associate Provost*  
Clifton Griffin, *Dean of Graduate Studies and Research*  
Karen Olmstead, *Dean of the Richard A. Henson School of Science and Technology*  
Christy Weer, *Dean of the Franklin P. Perdue School of Business*  
Maarten Pereboom, *Dean of the Charles R. and Martha N. Fulton School of Liberal Arts*  
Kelly Fiala, *Interim Dean of the Samuel W. and Marilyn C. Seidel School of Education and Professional Studies*  
Beatriz Hardy, *Dean of the Blackwell Library*

**Thank you to all our presenters, mentors, volunteers, support folks, and committee members! See you at the 16<sup>th</sup> Annual Salisbury University Student Research Conference in April, 2017!!!**