4th Annual
Graduate Research Conference

Friday, March 3, 2017
University Union
9:30am-10:30am Concurrent Sessions

Plants, Animals, and their Environment

*Board Room*

**Moderator:** Dr. Catherine Miller-Hunt

Ammar Al-Furaiji (Biology) “Differential Gene Expression of Tomato Fruitworm (Helicoverpa zea) in Response to Feeding on Different Types of Tomato (Solanum lycopersicum) Plant Tissues”

Md Imtiaz Khalil (Biology) “Gene Expression in Tomato Plants in Response to Arbuscular Mycorrhizal Symbioses and Caterpillar Herbivory”

Nicole Roseman (Biology) “Hybridization of Hyla versicolor and Hyla chrysoscelis using Microsatellite Analysis”

Perspectives on Sexual Orientation and Sexual Behavior

*Fox Room*

**Moderator:** Dr. Julie Herbstrith

Selina Mannion (English) “The Literary Struggle for Homosexual Acceptance in Moroccan Literature”


Sarah Elizabeth Nielsen (Psychology) “Out or Left Out? An Investigation into Biphobia”

Language, Literature, and Culture

*Cardinal/Oak Room*

**Moderator:** Dr. Rebekah Buchanan

Klaira Strickland (English) “Defining Fan Subculture in Dungeons and Dragons”

Erica Salmonson (English) “The Anti-Sidekick in British Fantasy: Gollum and Draco Malfoy”

Nancy Dixon (History) “The Silenced and Naked People: Representations of the Filipinos and Filipinos at The Quincy Museum”

Continued on the next page …

9:30am-10:30am Concurrent Sessions, Continued…

Psychology of Experiences and Behaviors

*Algonquin Room*

**Moderator:** Dr. Jonathan Hammersley

Heather Lucke (Experimental Psychology) “Marijuana Use among College Students with Mood and Anxiety Disorders”

Tyler Cieck (General Experimental Psychology) “Co-Occurring Cigarette Use and Prescription Stimulant Misuse and Related Factors”

Tiffany Botsford (Psychology CCMH) “Attention Bias and Trait Mood: Possible Clinical Uses of Stroop Task Performance”

Program continues on the next page …
10:45am – 12:15pm Poster Session (Heritage Room)

1. Ravi Kiran Lella (Chemistry) “Discovery of Internal Standard for the Determination of Limonene in Sweet Orange (Citrus Sinensis) Oil by Gas Chromatography”
2. Oluwasola Ayosanmi (Public Health) “Acceptance of HIV Screening Test among International Graduate Students at Western Illinois University”
3. Ammar Al-furaji (Biology) “Differential Gene Expression of Helicoverpa zea in Response to Rearing on Different Types of Tomato Plant Tissues”
4. Wei Chean Chuah (Chemistry) “Ionization of Polar Compounds by Nitrogen Direct Analysis in Real Time”
5. Therin Bradshaw (Biology) “Marsh Bird Use of Wetlands Manged for Waterfowl in Illinois”
6. Lukas K. Sotola (General Experimental Psychology) “The Effects of System Justification and Reminders of Ingroup Disadvantage on Just World Beliefs”
7. Kisha Kucharek (Kinesiology) “The Effects of High Intensity Interval Training in Highly Trained Athletes”
9. Sierra Semel (Biology) “Reducing Stereotypic Pacing in Polar Bears (Ursus Maritimus) and Brown Bears (U. Arctos) by Erecting Visual Barriers between Neighboring Individuals”
10. Samson Olaitan Omole (Biology) “Role of AXL Protein in the Infection of Innate Immune Cells by Dengue Virus”
11. Terri Tobias (Environmental Studies) “Aquatic Fungi Associated with a Low Order Stream in West Central Illinois”
14. Danielle Thompson (Kinesiology) “College Student’s Knowledge of Special Olympics and Paralympics: A Survey Study”
15. Md Imtiaz Khalil (Biology) “The Effect of Arbuscular Mycorrhizae on Defense related Gene Expression of Tobacco Plants when facing Herbivory Challenges”
16. Alana Cesarz (Kinesiology) “Sport Psychology Services for NCAA Student-Athletes”
17. Pairs Hamm (Biology) “Microbial Communities Associated with External Fur Surfaces of Bats and the Discovery of Novel Isolates with Antifungal Activity against Pseudogymnoascus Destructans”
18. Hali Strobel (Health Sciences (Public Health)) “Influenza and HIV: A Comparative Analysis”

Continued on the next page …

10:45am – 12:15pm Poster Session, Continued…

19. Wei Siang Tan (Physics) “H2CS Absorption in the High Mass Star Forming Region G34.26+0.15”
21. Osamah Al-Mohammed Baqer (Chemistry) “C-H bond Chalcogenation and Oxidation of Indole”
22. Ibrahim A Al-Dulaimi (Chemistry) “Determination of Sulfur and Mercaptane in Crude Oil by using Gas Chromatography”
23. Taiwo Esan (Chemistry) “Synthesis of an Analog of 2-iodoxybenzoic Acid”
25. Mary Shrvanthi Kakumanu (Chemistry) “Synthesis of 1,2,3-Triazole Derivatives”
26. Alex Walker (Economics) “Impacts on Prices Paid to Colombian Coffee Growers”
27. Lindsey Poore (Biology) “Nematode Parasitism of Orthopterans in Sand Prairies vs. Tallgrass Prairies”
28. Staci Shank (Health Sciences) “Application of the Constructs of the Transactional Model of Stress and Coping to Grieving”
29. Andrew Bouton (Biology) “Using Canvasbacks (Aythya valisineria) as a Bioindicator of Wetland Quality in the Upper Midwest”
31. Tyler Cieck (General Experimental Psychology) “Sexually Abusive Relationships, Alcohol Use, and Suicidal Ideation”
32. Drew Whippie (Chemistry) “Synthesis and Chemiluminescence Study of Lumino Derivatives”
33. Rachel Crews (Chemistry) “Analysis of Total Antioxidant Concentration in Brewed Teas”
34. Rashid Alatalah Aljohani (Computer Science) “Diagnosis System Thyroid Disease”
35. Rehab A Yaizey (Physics) “Optical Band Gap Measurements in Bismuth Boro-tellurite Glasses Doped with Sm3+ and Eu3+ Ions”
36. Andrew Gilbert (Biology) “Detection Probability and Disturbance of Waterfowl During Aerial Surveys”
37. Beth Scheining (Biology) “Prevalence of Ectoparasites and Strongyloides Robustus in Southern Flying Squirrels (Glaucomys Volans) in West-Central Illinois”
38. Lauren L. Brozman (Sport Management) “The Examination of Time on Task Behaviors of Students with Disabilities in a Motor Clinic as a Result of the ExerciseBuddy Application”

Continued on the next page …
10:45am – 12:15pm Poster Session, Continued…

40. Faisal Alanazi (Physics) “Electron Paramagnetic Resonance Spectra of Vanadium Ions”
41. Megan Corbett (Computer Science) “Utilizing Apache Hadoop MapReduce to Analyze Trends in High School Students Performance and Postsecondary Decisions”
42. Holly Hall (Kinesiology) “The Inclusion of Disability in Athletic Training Curriculums and Clinical Experiences”
43. Oluwabukola Ajasa (Biological Sciences) “Gene Expression of Corn Earworm in Response to Infection by Serratia Marcescens and Pseudomonas Aeruginosa”
44. Oluwatosin Adetolani Omoniyi (Public Health) “Prevention and Reduction of Childhood Obesity Using Social Cognitive Theory”
45. Lauren Isaacson (Clinical Mental Health Counseling) “Web-based Interventions Serving Foster Families”
46. Susan Ovbude (Chemistry) “Gene Knockout of a Secondary Alcohol Dehydrogenase using CRISPR/Cas9 Technology”
47. Hekmat AL-Hmadi (Chemistry) “Overexpression of a Putative Oleate Hydratase Isozyme from Nocardia Cholesterolicum NRRL 5767”
49. Margaret Kenna (Biology) “True Metabolizable Energy of Submersed Aquatic Vegetation for Mallard”
50. Margaret Kenna (Biology) “True Metabolizable Energy of Submersed Aquatic Vegetation for Dabbling Ducks”
51. Majed Almashnowi (Chemistry) “Solid State Synthesis of Cu2Sn2S6”
52. Grija Kumar Thapa (Physics) “Photoluminescence Spectral Measurements of Lead Borate Glass Doped with Samarium Ions and Lead Germanium Borate Glass Doped with Terbium Ions”
53. Tanjina Nasreen Ahmed (Physics) “Optical Properties of Samarium(Sm) and Dysprosium (Dy) Doped Lead Boro-Tellurite Glasses”
54. Joshua Fitzgerald (Communication) “Hyperpersonal Relationships Transitioning to Real Life”
55. Nathasha Chandrasekharan (Biology) “Analysis of Habitat Use by Three Species of Penguins (King, Gentoo and Rockhopper) at St. Louis Zoo in Response to Noise and Visitation Levels”
56. Antoinett Lane (Sociology) “Objectifying Women: A Content Analysis”
57. David Alton (Economics) “The Effect of Trade and Innovation on Poverty”

Map of the poster-room layout on the next page
12:15pm – 1:45pm Concurrent Sessions

Diseases, Vectors, and Microorganisms

*Board Room*

**Moderator:** Dr. Brian Davies

Emma Trone (Biology) “Evaluating Gene Expression in Chronic Wasting Disease Infected White-Tailed Deer”

Soumya Saha (Biology) “Neisseria Gonorrhoeae Biofilm Interactions with the Human Immune System”

Adeyemi Olanrewaju (Biology) “Detection of Thermophilic Fungi in Corn-based Food Products and Determination of Their Optimal Growth Temperature”

Jason Hunt (Environmental Studies) “Aedes Mosquito Surveillance in Western Illinois”

Tim C. Swearingen (Biology) “Evaluating home range size of bobcats (Lynx rufus) in an agriculturally dominated landscape of west-central Illinois”

The Physical World: Quantum, Nano, Every day, and Astronomical

*Fox Room*

**Moderator:** Dr. Saisudha Mallur

Steven Akwabli (Physics) “Quantum Tic-Tac-Toe Game”

Sylvester Amoah (Physics) “Towards High Precision Metrology via Quantum Interferometry with Entangled States of Atoms”

Suman Rijal (Physics) “Study of Optical Absorption, Fluorescence, and Chromaticity of Sm-doped Bismuth Telluro-borate Glasses”

Dhanunjay Kumar Donipudi (Engineering Technology Leadership) “Plastic Waste as the Partial Replacement of Coarse Aggregates in Asphalt Mixes”

Onic Islam Shuvo (Physics) “Investigating the Association of Formaldehyde Emission with a Hot Molecular Core”

Youth Issues: Education, Health, and Voting

*Cardinal/Oak Room*

**Moderator:** Dr. Amanda Silberer

Chukwuebuka Ogwo (Public Health) “Effectiveness of School Oral Health Education in the Reduction of Dental Caries among School Children in Enugu, Nigeria”

Carol L. Kilver (Educational Leadership) “The Impact of Student Teaching on the Preservice Teacher”

Oluwasola Ayosanmi (Public Health) “Perception of HIV/AIDS Vulnerability and the Screening Tests among Youths”

Jose Maldonado (Experimental Psychology) “Distinguishing Behavioral Performance of Fatigue and Malingering”

Session continues on the next page …

12:15pm – 1:45pm Concurrent Sessions, Continued…

Economy, Politics, and Technology

*Algonquin Room*

**Moderator:** Dr. Chandra Amaravadi

Fahim Ashhab (Political Science) “SAARC: Aids and Impediments, A theoretical case study”

Hashim Al-Rikabi (Political Science) “The Determinants of Partitioning in the Arab World”

Susmita Raut (Economics) “Brexit: The Economic Impact of Immigration on the European Union”

Chantel Kitchen (Political Science) “Is WIU Democratic: How Did Ideology Affect a Student’s 2016 Presidential Choice?”

Ranjith Kumar Gannamani (Computer Science) “The Internet of Things: Issues and Challenges”

Program continues on the next page …
2:00pm – 3:15pm Performance Presentations

Cello and Acting
_Sandburg Theatre_
Moderator: Dr. Anita Hardeman

Jason Shores (Acting) and Monica Tate (Acting), “Composing Theatrical Stories Informed from the Reduced and Essential Elements of Source Material ‘Metropolis’”

Klaudia Jarosz (Music: Cello Performance) “The Sound of Music: The Performer’s Journey through J. S. Bach’s Cello Suite no. 5”

Jeff Allen Young (Theatre Performance/Acting) and Brett John Olson (MFA Theatre) “Holistic Acting Training, and its Application to the Irene Ryan Acting Scholarship”

Program continues on the next page …

3:30pm Keynote (Sandburg Theatre)

“You Don’t Have to be a Mad Scientist: Issues in Deciding What Kind of Researcher You Want to Be”

Dr. Christopher Carpenter, Communication

Welcome Dr. Amy Patrick Mossman, Professor of English and Acting Director, University Writing Center, and Chair of the Inaugural Graduate Research Conference (2014) Planning Committee

Remarks Dr. Kathy Neumann, Interim Provost and Academic Vice President

Introduction Dr. Nancy Parsons, Associate Provost and Director of Graduate Studies

Keynote Dr. Christopher J. Carpenter, Communication

Professor Christopher J. Carpenter is currently an Associate Professor in the Department of Communication at Western Illinois University. He is an internationally recognized expert in computer-mediated communication and persuasion. Dr. Carpenter’s work on Facebook and narcissism was discussed by news outlets around the globe and he continues to be sought after by reporters to comment on social media issues. He was invited to participate in a debate at the Oxford University Union in 2012 on the value of social media and activism. He has over 40 publications and was twice the recipient of the Wayne N. Thompson research professorship. His work has been cited over 800 times by other scholars. He is the 2016 recipient of the Provost Award of Excellence in Scholarly/Creative/Performance Activity.

4:30pm – 5:30pm Awards Reception (Sandburg Lounge)

Sponsored by
The College of Arts and Sciences,
Department of Biological Sciences,
Department of Psychology,
Department of Chemistry, and
The Phi Kappa Phi Honor Society.
The WIU Chapter of the Honor Society of Phi Kappa Phi, the nation's oldest, largest, and most selective all-discipline honor society, is a proud sponsor of the Fourth Annual Western Illinois University Graduate Research Conference. The chapter congratulates all student participants.

Admission to the Honor Society of Phi Kappa Phi is by invitation only to the top 10 percent of graduate students. Members are often preferred candidates for grants, scholarships, and fellowships, and membership is widely accepted by potential employers as an indicator of academic ability and motivation. The benefits of membership in this highly selective honor society include:

* Academic Recognition
* Career Assistance and the JobTarget Career Center
* Eligibility to Compete for Awards and Scholarships
* Advantages from Corporate Partnerships and Services
* Networking, Training, and Leadership Opportunities

For more information about the WIU Chapter of Phi Kappa Phi, find us online at http://www.wiu.edu/PhiKappaPhi/, on Facebook https://www.facebook.com/pages/Phi-Kappa-Phi-of-Western-Illinois-University/324696356029?ref=ts, or contact the current chapter President Dr. Michael Romano: M-Romano@wiu.edu

The Western Illinois University School of Graduate Studies would like to thank the following for their generous support of this year's Graduate Research Conference:

- College of Arts and Sciences
- College of Education and Human Services
- Department of Physics
- Department of Psychology
- Department of Biological Sciences
- Department of Chemistry
- Phi Kappa Phi Honor Society

Dr. Nancy Parsons, Associate Provost and Director of Graduate Studies
Graduate Research Conference Planning Committee


Conference Day Volunteers


Judges


Moderators

Chandra S. Amaravadi, Rebekah Buchanan, Brian Davies, Jonathan Hammersley, Anita Hardeman, Julie Herbstrith, Saisudha Mallur, Catherine Miller-Hunt, and Amanda Silberer.

Thank You!