14th ANNUAL
STUDENT RESEARCH SYMPOSIUM
2012
Sponsored by
Glenn R. Sharfman
Vice President and Dean
for Academic Affairs
Manchester College
Manchester College
Student Research Symposium
April 13, 2012, 3:30 - 5 p.m.

SESSION I  Poster Session  Lahman Room, upper Union
Faculty Evaluators - Özlem Ersin and Arturo Yañez

Stokes Drift Due to Ocean Surface Waves Under Tropical Cyclone (Hurricane) Conditions
JOHN BRUCE ......................................................... Class of ’13
Hometown - North Manchester, Ind.
Major - Physics and Mathematics
Mentor - Ted Tao

The Effects of Music on Mood: An Exploration of Music’s Influences on Undergraduate Student Emotions
KAITY CLARK ....................................................... Class of ’13
Hometown - North Manchester, Ind.
Major - Psychology

SARAH KUBORN .................................................. Class of ’12
Hometown - Darien, Ill.
Major - Psychology
Mentor - Marcie Coulter-Kern

Dating Confidence in College Students Among Different Socioeconomic Statuses
MEREDITH CORS ................................................ Class of ’13
Hometown - Elkhart, Ind.
Major - Psychology
Mentor - Marcie Coulter-Kern

The Effects of a Learning Community on Classroom Participation and Self-Confidence
KAITYLYN DEWITT .............................................. Class of ’13
Hometown - Anderson, Ind.
Major - Psychology
Mentor - Marcie Coulter-Kern

Reducing Stress Through Laughter
ELOISE FULMER .................................................. Class of ’12
Hometown - Buford, Ga.
Major - Psychology
Mentor - Marcie Coulter-Kern

The Effect Accelerated Reader Participation Has on Students’ Recreational Reading
EMILY GOINS ...................................................... Class of ’14
Hometown - Madison, Ind.
Major - Psychology
DYLAN HINER ...................................................... Class of ’13
Hometown - Wabash, Ind.
Major - Psychology
Mentor - Marcie Coulter-Kern

Synthesis and Investigation of Conjugated Organic Dye Molecules
JOHN LASH .......................................................... Class of ’12
Hometown - Kendallville, Ind.
Major - Chemistry
Mentor - Susan Klein

Group Satisfaction Scale Development and Correlations to Perfectionism
AMY LUTHANEN .................................................... Class of ’12
Hometown - North Manchester, Ind.
Major - Psychology
Mentor - Marcie Coulter-Kern

SESSION II  Administration Building, Room 219
Faculty Evaluator - Steve Naragon

Holy Grail Found in Japan: Fate/Stay Night and the Legend of Arthur
SARAH CARMAN .................................................. Class of ’14
Hometown - Liberty, Ind.
Major - English and Mathematics
Mentor - Janina Traxler

The Quest for Tristan and Isolde
SARAH PLEW ...................................................... Class of ’12
Hometown - Westfield, Ind.
Major - French and English
Mentor - Janina Traxler
Tolkien’s Gem: Treasure-Seeking and Quest in The Silmarillion
SAMUEL OTT .............................................................. Class of ’13
Hometown - Churubusco, Ind.
Major - Religion
Mentor - Jonathan Watson

SESSION III Administration Building, Room 221
Faculty Evaluator - Justin Lasser

Burroughs: Language as Addiction
TYLER EVANS .............................................................. Class of ’14
Hometown - Anderson, Ind.
Major - English
Mentor - Jonathan Watson

What is the Samurai? A Fighter or Thinker?
BENJAMIN MADSEN ...................................................... Class of ’12
Hometown - South Bend, Ind.
Major - History
Mentor - Marjan Boogert

Landing Ship Tanks: Their Role in Amphibious Warfare
KRISTEN WILHITE .............................................................. Class of ’12
Hometown - Crawfordsville, Ind.
Major - History
Mentor - Katherine Tinsley

SESSION IV Clark Computer Center, Room 101
Faculty Evaluator - Frank Olive

Diversity and Knowledge Creation: An Empirical Investigation from U.S. Schools
STACIE KOCH .............................................................. Class of ’12
Hometown - Nappanee, Ind.
Major - Economics and Social Work
Mentor - Sreenath Majumder

Examining the Impact of Pre-Collegiate Factors and Course Difficulty on Collegiate Success
THOMAS BLAKE .............................................................. Class of ’13
Hometown - Plymouth, Ind.
Major - Accounting and Economics
Mentor - Sreenath Majumder

Intellectual Property and Access to Knowledge
POOJA SHRESTHA .............................................................. Class of ’12
Hometown - Kathmandu, Nepal
Major - Accounting and Finance
Mentor - Sreenath Majumder

SESSION V Clark Computer Center, Room 102
Faculty Evaluator - Matt Burlingame

The Effects of Physical Exhaustion on Cognitive Functioning
JOSEPH HUNTER .............................................................. Class of ’14
Hometown - Rushville, Ind.
Major - Psychology
Mentor - Marcie Coulter-Kern

Validating Learning Styles and Visual Performance Tests
ZABRIAN MILLS .............................................................. Class of ’14
Hometown - Alexandria, Ind.
Major - Psychology
Mentor - Marcie Coulter-Kern

SESSION VI Science Center, Room 101
Faculty Evaluator - Jenny Simmers

Comparison of Ventilatory Equivalents for O2 and CO2 between Sedentary and Active Individuals
ANDY BRISBIN .............................................................. Class of ’13
Hometown - Wabash, Ind.
Major - Exercise Science
Mentor - Mark Huntington

TAYLOR DAGGETT .............................................................. Class of ’13
Hometown - Cincinnati, Ohio
Major - Exercise Science
Mentor - Mark Huntington
Comparing VO2max of Male Distance Runners and Sprinters

CALVIN COOK

Hometown - Plymouth, Ind.
Major - Exercise Science

DANIELLE HOWELL

Hometown - Denver, Ind.
Major - Exercise Science
Mentor - Mark Huntington

Blood Lactate Concentration and Memory - A Correlational Analysis in Anaerobic Exercise

NICHOLAS SALUPO

Hometown - Indianapolis, Ind.
Major - Biology-Chemistry and Athletic Training
Mentor - Mark Huntington

SESSION VII  Science Center, Room 104
Faculty Evaluator - John Planer

Emotional and Behavioral Effects of Poverty on Schoolchildren Living in a Small Town

KATY DUNLAP

Hometown - Saint John, Ind.
Major - Psychology
Mentor - Rusty Coulter-Kern

What (Wo)Men Want: Testing the Evolutionary Psychology Perspective on Mate Selection at Manchester College in 2012

LESLEY SAMMONS

Hometown - Bargersville, Ind.
Major - Psychology and Sociology
Mentor - Ashleigh Maxcey

Understanding the Interest of States in Protecting the Sanctity of Invaluable Human Lives: Understanding the Political and Moral Significance of Pro-Life State Legislation in 2011

VERONICA SCHILB

Hometown - Fort Wayne, Ind.
Major - Political Science
Mentor - John Deal

SESSION VIII  Science Center, Room 122
Faculty Evaluator - Tim Brauch

Raising Children in a Gendered Society: Heightism as Sexism

AMY LUTHANEN

Hometown - North Manchester, Ind.
Major - Psychology
Mentor - Katharine Ings

Life Once Lived: A Writer’s Journey

BRIANA BASS

Hometown - Manassas, Va.
Major - English
Mentor - Beate Gilliar

Feminism in Female Archetypes in Harry Potter

NICOLE GLASSLEY

Hometown - Westville, Ind.
Major - English
Mentor - Stacy Erickson

SESSION IX  Science Center, Room 124
Faculty Evaluator - Asha Suryanarayanan

Toxicological and Environmental Effects of Glyphosate, Aspartame, and Bisphenol A

JOHN TOPSOGLOU

Hometown - Fort Wayne, Ind.
Major - Environmental Science
Mentor - Jerry Sweeten

The Effect of Retention Ponds and Riparian Vegetation on Nutrient Concentrations in a Golf Course Stream in Millbrook, New York

MATT TRENTMAN

Hometown - Delphos, Ohio
Major - Environmental Studies
Mentor - Jerry Sweeten
Analysis of Escherichia coli and Enterococcus faecium Using Membrane Filtration and Microbial Source Tracking Methods Within the Middle Eel River Watershed, Indiana
CARRIE WAITS .................................................................................. Class of ’12
Hometown - Goshen, Ind.
Major - Environmental Studies
Mentor - Dave Kreps

SESSION X   Science Center, Room 141
Faculty Evaluators - Thelma Rohrer and Ningning Yang

Nietzsche’s Perspectivism
ALICE BAYINGANA............................................................................ Class of ’12
Hometown - Kigali, Rwanda
Major - Biology-Chemistry
Mentor - Leonard Williams

The Spectrum of Premillennialism
TODD EASTIS .................................................................................. Class of ’14
Hometown - Warsaw, Ind.
Major - Sociology
Mentor - Kate Eisenbise

The Psycho-Social Pathology of Juvenile Delinquency
MEGAN BIRKY .................................................................................. Class of ’13
Hometown - Kouts, Ind.
Major - Social Work and Sociology
Mentor - Brad Yoder

SESSION XI   Science Center, Room 202
Faculty Evaluator - Swati Betharia

A Descriptive Limnological Analysis of the Biological and Physical Parameters of a Dimictic Northern Indiana Natural Lake
ANDREA BAKER .................................................................................. Class of ’12
Hometown - Pierceton, Ind.
Major - Environmental Studies
Mentor - Jerry Sweeten

A Simulated Galaxy Redshift Distribution
BRITTANY BATMAN............................................................................. Class of ’12
Hometown - Brownsburg, Ind.
Major - Physics and Spanish
Mentor - Ted Tao

Influence of Vitamin A on Macrophage Phagocytosis When Challenged with Bacterial Lipopolysaccharide and Latex Beads
TODD BYRKET .................................................................................. Class of ’12
Hometown - Wakarusa, Ind.
Major - Biology
Mentor - Rachel Polando

SESSION XII   Video Session   Flory Auditorium, Science Center
Faculty Evaluator - Mike Martynowicz

American Voices: The Right to Protest
LINDSEY FRANKS.............................................................................. Class of ’13
Hometown - Warsaw, Ind.
Major - Communication Studies and Business

KELSEY GOWER .................................................................................. Class of ’14
Hometown - Columbus, Ind.
Major - Communication Studies and Social Work

REBECCA PENDERGRASS ........................................................................ Class of ’12
Hometown - Fairborn, Ohio
Major - Communication Studies

KIMBERLEE WEAVER .............................................................................. Class of ’13
Hometown - Mishawaka, Ind.
Major - Communication Studies
Mentor - Judd Case

The War on Drugs: Issues at Winsec
JESS RINEHART .................................................................................. Class of ’13
Hometown - Granger, Ind.
Major - Communication Studies

JOSEPH STUART .................................................................................. Class of ’12
Hometown - Mount Vernon, Ohio
Major - Peace Studies
Mentor - Judd Case
SESSION XIII  Science Center 204
Faculty Evaluator - Ryan Hedstrom

A Study of Salt Preference in Gray Squirrels (Sciurus carolinensis) Within Tall Oaks Located in Northern Indiana
COURTNEY SUTER ................................................................. Class of ’12
Hometown - South Bend, Ind.
Major - Environmental Studies
Mentor - Jerry Sweeten

The Impact of Increased Turbidity, as a Result of Global Climate Change, on the Stress and Alarm Signaling in the Crayfish, Orconectes virilis
MATTHEW LINN ................................................................. Class of ’12
Hometown - Columbia City, Ind.
Major - Biology and Environmental Studies
Mentor - Aron Costello

Population Trends of the Catostomidae Family Within the Eel River Between North Manchester, Indiana and Mexico, Indiana During Three Consecutive Summers of 2009, 2010, and 2011
CARMEN PYLES ................................................................. Class of ’12
Hometown - Racine, Wis.
Major - Environmental Studies
Mentor - Jerry Sweeten

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Bass, Briana
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Bayingana, Alice
Birky, Megan
Blake, Thomas
Brisbin, Andy
Bruce, John
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Carmen, Sarah
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Reeves, Kevin
Rinehart, Jess
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Sammons, Lesley
Schilb, Veronica
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Stuart, Joseph
Suter, Courtney
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Weaver, Kimberlee
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Wilson, Stephanie

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RECEPTION & AWARDS
5:15 - 6 p.m.
Hoff and Lahman Rooms
College Union
All are welcome.

Faculty Advisor
Lynne F. Margolies

Our sincere thanks to all of the people who worked hard to make this year’s Manchester College Student Research Symposium a success, including the student conveners, the faculty evaluators, the faculty mentors, Chartwells, and anyone else we may have missed!

We recognize and appreciate your dedication to the students of Manchester College.