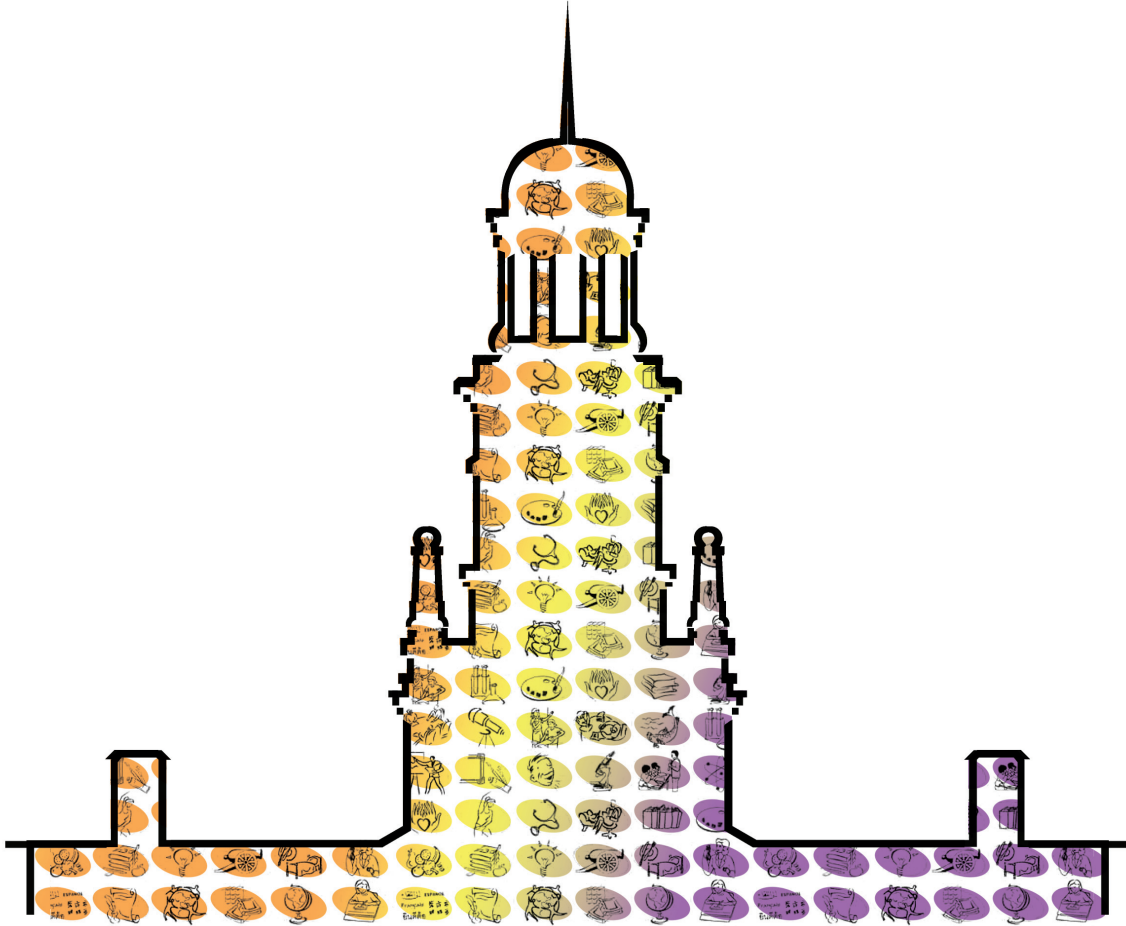


7

th Annual

FACULTY/STAFF

Research and Creativity Fall Forum



Buffalo State
State University of New York

OCTOBER 19, 2006 • HOUSTON GYM

FACULTY/STAFF Research and Creativity Fall Forum



th Annual

7th Annual

FACULTY/STAFF

Research and Creativity Fall Forum

OCTOBER 19, 2006 • HOUSTON GYM • BUFFALO STATE COLLEGE

DEANS

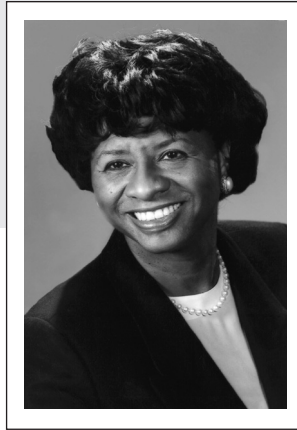
Lawrence G. Flood, *School of Natural and Social Sciences*
Gary W. Jones, *School of the Professions*
Richard J. Lee, *The Graduate School*
Dennis M. McCarthy, *School of Arts and Humanities*
Janet E. Ramsey, *University College*
Ronald S. Rochon, *School of Education*

RESEARCH AND CREATIVITY COUNCIL

Catherine Ansuini, *Chair and Professor, Health and Wellness*
Bruce Baum, *Professor, Exceptional Education*
Elisa Bergslien, *Assistant Professor, Earth Sciences and Science Education*
Mark Fulk, *Associate Professor, English*
Linda Gleckel, *Interim Associate Dean, School of Education*
Gina Game, *RCC Administrative Assistant, Research Foundation of SUNY, Buffalo State College*
Stephanie Goldberg, *Professor, Technology*
Lisa Hunter, *Assistant Professor, Music*
Gerri Hura, *Assistant Professor, Educational Foundations/Adult Education*
Scott Johnson, *Assistant Dean, First-Year and Academic Programs*
Richard Lee, *Interim Dean, The Graduate School*
Kerran Sanger, *Interim Associate Dean, School of Arts and Humanities*
Amy McMillan, *Assistant Professor, Biology*
Carolyn Ann Morris-Hunt, *Director, External Development, Institutional Advancement*
Karen O'Quin, *Associate Dean, School of Natural and Social Sciences*
Jill Singer, *Professor, Earth Sciences and Science Education and Director, Office of Undergraduate Research*
Ted Turkle, *Director, Research Foundation of SUNY, Buffalo State College*
Rita Zientek, *Interim Associate Dean, School of the Professions*
Kimberley Zittel-Palamara, *Assistant Professor, Social Work*

PLANNING COMMITTEE

Catherine Ansuini, *Chair and Professor, Health and Wellness*
Nancy Chicola, *Associate Professor and Acting Chair, Elementary Education and Reading*
Gina Game, *Executive Asst. to the Director, Research Foundation of SUNY, Buffalo State College*
Amy McMillan, *Assistant Professor, Biology*
Gerald Trentham, *Assistant Professor, Theater*
Rita Zientek, *Interim Associate Dean, School of the Professions*



Welcome to the Buffalo State College 2006 Faculty/Staff Research and Creativity Fall Forum! Here at Buffalo State College, we are proud to be home to a community of purposeful and intellectually vibrant scholars. I congratulate everyone who has worked to help this program continue and grow.

With the largest research component of any comprehensive college in SUNY, Buffalo State is able to offer remarkable research opportunities for our students, both at the graduate and undergraduate levels. These activities enrich our academic environment and contribute to the distinctiveness of a Buffalo State College education.

Thank you for your participation in the fall forum! By providing this occasion to share with our colleagues, we contribute to the intellectual and creative synergy that makes Buffalo State such a wonderful place to work and learn.

Sincerely,

A handwritten signature in cursive script that reads "Muriel A. Howard". The signature is written in dark ink and is positioned below the word "Sincerely,".

Muriel A. Howard, Ph.D.
President



The Faculty/Staff Research and Creativity Fall Forum is an affirmation of the vibrant intellectual environment at Buffalo State. I commend the Research and Creativity Council and the Research Foundation for arranging this important event.

Colleagues sharing research and creative accomplishments remind everyone of the richness and diversity of our scholarly endeavors. Outcomes shared in the forum originate from funded and unfunded initiatives, from individual and collaborative efforts, and often include participation of our students. Thank you for expanding the knowledge within your discipline and for allowing the Buffalo State community to share in your success.

Sincerely,

A handwritten signature in black ink, appearing to read "Dennis K. Ponton". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Dennis K. Ponton, Ph.D.
Provost and Vice President for Academic Affairs

PRESIDENT'S AWARD FOR EXCELLENCE IN TEACHING

Drew Kahn, *Associate Professor, Theater*

Gary Solar, *Assistant Professor, Earth Sciences and Science Education*

PRESIDENT'S AWARD FOR EXCELLENCE IN EQUITY AND CAMPUS DIVERSITY

Lori Quigley, *Associate Professor, Elementary Education and Reading*

PRESIDENT'S AWARD FOR EXCELLENCE IN RESEARCH, SCHOLARSHIP, AND CREATIVITY

Richard Herdlein, *Associate Professor, Student Personnel Administration*

PRESIDENT'S AWARD FOR EXCELLENCE IN SERVICE TO THE COLLEGE

Stephen Chris, *Senior Psychologist, Counseling Center*

Warren Hoffman, *Assistant Director, Financial Aid Office*

Samuel Lunetta, *Lieutenant, University Police*

CHANCELLOR'S AWARD FOR EXCELLENCE IN PROFESSIONAL SERVICE

Gail Maloney, *Senior Associate Director, Intercollegiate Athletics*

CHANCELLOR'S AWARD FOR EXCELLENCE IN TEACHING

Barbara Bontempo, *Professor, English*

CARNEGIE ACADEMY FOR THE SCHOLARSHIP OF TEACHING AND LEARNING (CASTL) FELLOWS 2005-2006

Thomas Renzi, *Coordinator, Academic Skills Center*

Diane McFarland, *Assistant Professor, Business*

John Draeger, *Assistant Professor, Philosophy and Humanities*

NEW FACULTY 2006-2007

Barish Ali, *Visiting Assistant Professor, English*

Mary Bailey, *Lecturer, Elementary Education and Reading*

Saziye Bayram, *Assistant Professor, Mathematics*

Holly Bewlay, *Lecturer, Music*

Laurie Buonanno, *Professor and Chair, Political Science*

John Cabra, *Assistant Professor, Creative Studies*

Christina Carter, *Lecturer, Mathematics*

Adrienne Costello, *Assistant Professor, English*

Michael Cretacci, *Assistant Professor, Criminal Justice*

Jane Cushman, *Assistant Professor, Mathematics*

Daniel DiLandro, *College Archivist, E. H. Butler Library*

Martin Ederer, *Assistant Professor, History*

Ann Emo, *Senior Staff Assistant/Costume Director/Shop Manager, Theater*

Ermine Ercan, *Assistant Professor, Technology*

Deborah Fletcher, *Assistant Professor, Speech-Language Pathology*

Kelly Garas-York, *Assistant Professor, Elementary Education and Reading*

Heather Glogowski, *Reference Librarian, E. H. Butler Library*

Satasha Green, *Assistant Professor, Exceptional Education*

Joy Guarino, *Lecturer, Theater*

Theresa Harris-Tigg, *Assistant Professor, English*

Stephen Highland, *Lecturer, Physics*

Carolyn Hilarski, *Associate Professor, Social Work*

Jeffrey Hirschberg, *Assistant Professor, Communication*

Tamara Horstman-Riphahn, *Staff Associate, School of Education*

Lisa Hunter, *Assistant Professor, Music*

Geraldine Hura, *Assistant Professor, Educational Foundations*

Theresa Janczak, *Assistant Professor, Exceptional Education*

Glenda Kelm, *Lecturer, Criminal Justice*

Marquerite Knowles, *Assistant Professor, Communication*

Steve Macho, *Assistant Professor, Technology*

Patrick McGovern, *Assistant Professor, Political Science*

Kevin Miller, *Assistant Professor, Exceptional Education*

Gerald Nosich, *Professor, Philosophy and Humanities*

Alicia Perez-Fuentetaja, *Assistant Professor, Biology*

Deborah Reed-Danahay, *Professor and Chair, Anthropology*

Suzanne Salzler, *Lecturer, Elementary Education and Reading*

Susan Schroeder, *Assistant Professor, English*

Christine Scott, *Lecturer, Speech-Language Pathology*

Aaron Shugar, *Assistant Professor, Art Conservation*

Vida Vanchan, *Lecturer, Geography and Planning*

Kevin Williams, *Assistant Professor, Earth Sciences and Science Education*

7th Annual
FACULTY/STAFF
Research and Creativity Fall Forum

Buffalo State

TABLE OF CONTENTS

Welcome ~ 10:30 a.m. 1

Poster Session ~ 10:30 a.m. – 2:00 p.m. 1

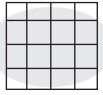
Presenter Indexxx

Mission Statement

The mission of the Buffalo State College Research and Creativity Network Spring and Fall Forums is to develop, encourage, and support Buffalo State College faculty and staff research and creativity and make collaborative research endeavors and grantsmanship more accessible.

Welcome

Ted Turkle, *Director, Research Foundation of SUNY, Buffalo State College*
Dennis K. Ponton, *Provost and Vice President for Academic Affairs*

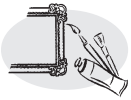


Anthropology

Revisiting the Martin Site: A PRELIMINARY REPORT OF THE 2006 EXCAVATIONS

Presenter: *Lisa Marie Anselmi*

Field work results will be presented for a multi-component archaeological site in Beaver Island State Park on Grand Island, New York. In the first exploration of the Martin Site since the late 1970s, the Anthropology Field School opened excavations during summer 2006. The presentation covers: the methodology followed in an attempt to find the original site location; the creation of a new datum point and spatial grid for the area; the artifacts recovered; and the preliminary interpretations of the spatial and artifactual data.



Art Education

Creating Life Activity Teaching Guides: A COMMUNITY SERVICE EXPERIENCE AT JOURNEY'S END REFUGEE SERVICES

Presenter: *Phyllis I. Thompson*

This presentation highlights a community service experience involving freshmen in AED 100, Essentials of Visual Art, who were also part of the Buffalo State College Learning Community, "Be A Hero, Be A Teacher: Teaching to Create Change in Urban Schools." The students worked with Journey's End Refugee Services to provide Life Activity Teaching Guides to Somalian refugee families to help them carry out everyday activities. Topics included bus travel, how to use a laundry mat, personal hygiene, and appropriate school dress. This presentation highlights the process through which students integrated learning from various learning community courses with their community service, made a significant contribution to members of the Buffalo community, and demonstrated a developing awareness of the value of civic engagement.



Riparian Zone Spiders as Mercury Sentinels

Presenter: *Christopher Pennuto*

Riparian communities can receive significant energy and material subsidies from adjacent aquatic donor habitats. Researchers investigated mercury flux from aquatic to terrestrial habitats via the emergence of aquatic insects and uptake by riparian spiders (*Larinioides sclopetarius*, Clerck 1757).

Spiders and midges were collected from: 1) a site within the Buffalo River Area of Concern (AOC) with known sediment mercury contamination and 2) an upstream site outside of the AOC. Spiders at both sites contained significantly more mercury than their midge prey and, surprisingly, spiders at the upstream site held roughly 2x more Hg than those within the AOC. There was a significant negative size: total mercury relationship in spiders ($P = 0.003$). The largest spiders had lower mercury concentrations than the smallest spiders, indicating that mercury depuration is rapid in these riparian predators. The highest Hg concentration observed was just over 0.4 ppm (ww).

Bioconcentration factors (BCF) differed between the sites, with the upstream site exhibiting a larger BCF (2.4 vs 1.5). These data indicate that spiders can be good mercury sentinels in urban environments and that emergent aquatic insects can be potential Hg contaminant vectors to riparian communities. Further research is needed to understand why the spiders upstream of the AOC showed higher Hg concentrations than spiders within the AOC.

Reproductive Histories of Remigrant Loggerhead Turtles from Wassaw National Wildlife Refuge, Georgia

Presenters: *Edward A. Standora, Kristina L. Williams, Michael G. Frick*

Several studies have quantified and reported the average reproductive effort or output of individual sea turtles over the course of a nesting season, based on clutch size and clutch frequency data. However, many studies were based on the reproductive parameters of a nesting population as a whole, not on data collected from individual turtles. Since 1973, the Caretta Research Project has involved saturation tagging at the Wassaw National Wildlife Refuge. This long-term database provides an opportunity to study the reproductive potential of individual turtles showing a high degree of site fidelity to Wassaw Island, Georgia, both within and among multiple nesting seasons. In this study, researchers examined the reproductive parameters of 13 turtles that have nested at least three times within a nesting season for at least three seasons on the island.

The Influence of Dietary Factors on Cold Tolerance in Freshwater Alewives

Presenter: *Randal J. Snyder*

During cold winters, freshwater alewives are prone to massive die-offs, the physiological causes of which are poorly understood. To examine the influence of diet on cold temperature tolerance in these fishes, alewives were fed two prepared frozen foods (*Artemia* and *Daphnia*), which differed in nutritional composition. When exposed to a laboratory cold challenge, the alewives fed *Artemia* exhibited significantly higher survival rates than those fed *Daphnia*. The next step involves examining the possible influence of dietary factors (such as fatty acid composition, energy content, and carnitine levels) on cold tolerance of alewives.



Burchfield-Penney Art Center

Breaking the Rules: CHARLES E. BURCHFIELD'S CONTRIBUTION TO WATERCOLOR

Presenter: *Nancy Weekly*

Charles E. Burchfield, one of America's greatest 20th century watercolor painters, emerged from a traditional painting background to create a unique style. Hoping to elevate watercolor painting to the same respected status afforded to oil painting, Burchfield literally broke all the rules by developing a distinctive, complex style that has never been duplicated. His methods, coupled with great vision, are now recognized as the means by which he communicated ideas about everyday life between the World Wars as well as a transcendental appreciation of nature.



Center for Health and Social Research

The Development of a Web Interface for the Erie County Risk Indicator Database (RIDB)

Presenters: *Alan Delmerico, Sheldon Tetewsky, William Wiczorek*

For the past five years, the Center has been working with the Erie County Department of Mental Health to develop a risk indicator database used to plan and target substance abuse prevention and treatment services in Erie County. Rather than trying to measure specific behavioral outcomes (such as early drinking and adolescent drug use), social indicators provide a more economical and efficient way to assess the well-being of populations of interest. The indicators are based on the risk and protective factor model of substance abuse, delinquency and other problem behaviors developed by Hawkins and Catalano at the University of Washington. Of the nearly 100 indicators from the original Risk Indicator Database (RIDB), 17 that were previously validated and determined to be highly significant were updated with data from various sources (such as the Erie County Health Department, NYS Department of Criminal Justice Statistics, NYS Department of Education, and NYS Liquor Authority). Many of these data

required some manipulation in the form of spatial interpolation to the zip-code level and/or standardization of rates by population.

The RIDB is a critical tool for selecting population risk characteristics and locations as targets for prevention and treatment initiatives. Additionally, new statewide directives for needs assessments dictate the use of archival data such as those found in the RIDB. The Center has developed a Web-based interface for the RIDB to better facilitate access to and use by prevention and treatment service providers. Run off of Buffalo State's Web server, the system uses Active Server Pages (ASP) to dynamically display the requested planning information from the back-end Access database. The establishment of this Web-based infrastructure will more easily facilitate updates and additions to the RIDB as new data become available.

Risk Behaviors and Health in a DWI Population

Presenters: *William Wiczorek, Kelly Marczynski, Sheldon Tetewsky*

Drinking-and-driving (DWI) offenders constitute a large population of persons (about 1.4 million offenders each year) who have officially been censured because of their use of alcohol. Previous research has clearly identified that DWI offenders have high rates of alcohol-related diagnosis (20-60 percent for alcohol dependence). Although DWI itself and heavy alcohol consumption are health-risk behaviors, little research links these and other risky behaviors by DWI offenders to health outcomes. Furthermore, there are few studies of broad health risk behaviors by DWI offenders.

This study examines the association between health-related risk factors and morbidity in a DWI population. DWI offenders are being recruited at courts in Erie County, New York, with about 650 currently enrolled. Subjects participate in extensive (two-to-three hour) face-to-face interviews that utilize standard measures of a large variety of issues, such as: drinking and drug use, sexual behaviors, behaviors associated with risks for blood-borne illnesses, chronic diseases, current health functioning, criminal history, incarceration, traumatic injuries, and sexually transmitted diseases. Analysis found that high-risk behaviors are especially prevalent among DWI offenders in such areas as sex while under the influence of alcohol (80 percent), sex under the influence of drugs (40 percent), multiple body piercings (41 percent), and sharing razors with others (21 percent). They also had lower rates of reporting excellent or very good overall health and higher rates of certain chronic illnesses, such as asthma and liver disease. Linking specific health-risk behaviors, while controlling for drinking and smoking, to general health functioning and morbidity will provide key information on which to base future health prevention programs and messages. These results are likely to be relevant for the DWI population and more generally to those who participate in the specific risk behaviors.

Chronic Illness Prevalence in a DWI Population

Presenters: *Kelly Marczynski, William Wieczorek, Thomas Nochajski*

A population of DWI offenders is almost certain to exhibit non-negligible amounts of health problems. Yet, health status within a DWI population has been sparsely researched, if at all. This poster presents a preliminary analysis of available cases (N≈350) of DWI offenders recruited through courts in Erie County, New York, from 2002-2005. A two-and-a-half-hour face-to-face interview assessed drinking and driving behaviors, demographics, history of chronic illnesses, current health status, and alcohol and drug use. The researchers examine and discuss differences between the rates found among the study participants and those of national surveys (e.g., the National Health Interview Survey) as well as those of a validated health assessment tool, the SF-36. Specific rates compared include respiratory conditions, cancer, diabetes, arthritis, and the physical component score from the SF-36. Initial findings suggest that DWI offenders exhibit higher rates for a variety of chronic illnesses. Findings of higher rates of these health conditions among a specialized population (such as DWI offenders) could have substantial public health implications for prevention and intervention programs aimed at not only special populations, but also the general population.

Insights from Interviews with DWI Offenders in Erie County, New York

Presenters: *Tayna Carmosino, Robert Skutnik, Roberta Pawlowski*

Drinking-and-driving (DWI) offenders constitute a large population of persons (about 1.4 million offenders each year) who represent a variety of demographics. In a research sample consisting of a wide range of ages as well as a cross-racial population, the majority of offenders were male. DWI offenders were recruited at various courts in Erie County, with 823 offenders enrolled. Subjects participated in an extensive (two-to-three hour) face-to-face interview that utilized standard measures of a large variety of issues, such as general health functioning, trauma and injuries, drinking and drug use, sexual behaviors, criminal history, arrests and incarceration. Researchers observed that subjects tend to under-report alcohol consumption and rationalize the circumstances of their arrest. The presenters will examine these demographic data and discuss their insights into the subjects' reportings.



Chemistry

Are You Doing Drugs? FORENSIC DRUG ANALYSIS OF EVERYDAY ITEMS

Presenter: *M. Scott Goodman*

The researchers discuss their analyses of various drugs and controlled substances found in the world around us. In the first case, they describe a method for analyzing cocaine found on regular currency. In another example, morphine and codeine are extracted from ordinary poppy seeds used for cooking. Finally, L-methamphetamine is isolated from Vick's inhalers, demonstrating the difference between the illegal D form and the legal L form still found in a few decongestants.

Service Learning in the Chemistry Curriculum

Presenter: *Maria Pacheco*

Students in the general chemistry class were involved in the soil analysis of various public and private lots in Buffalo, NY. The project was a collaboration among Buffalo State's Volunteer and Service Learning Center, Buffalo's West Side Community Collaborative and the Geography and Planning Department. Data obtained were used to generate a socio-economic map of the city's West Side. This poster will present the logistics of the project, the impact on the students' attitudes towards service learning and chemistry, and future plans.

Transition Metal Complexes of a Carbaporphyrzine Macrocycle

Presenter: *William S. Durfee*

In 1957 Elvidge and Golden synthesized an N₃ macrocycle in which one of the phthalocyanine's isolindoline groups was replaced with a benzene ring. Although they and others reported the synthesis of transition metal adducts of this system, no structural details were given. For this project, the researchers reacted this macrocycle with various transition metals and obtained crystallographic evidence for metal ion binding. Two different Co(III) complexes, for example, were obtained. Both are six-coordinate di-pyridine adducts with a Co-C bond. In one case, however, the ligand has undergone hydroxylation at a carbon atom that is alpha to one of the coordinated nitrogen atoms. The researchers also will discuss the formation of other transition metal complexes with this ligand and the electrochemical characterization of these systems.

Development of Micro-arrays for Forensic Drug and DNA Analysis

Presenter: *Jamie Kim*

Parallelized high-density arrays of proteins and DNA have been of great significance in the development of biosensors. These arrays can be fabricated by two steps, site selective surface functionalization followed by immobilization of harvesting molecules (e.g., an antibody for a target drug compound, fragments of single strand DNA, etc.) on designated areas. In the laboratory, the researchers employed silicon wafers as raw templates where arrays are constructed. As a preliminary procedure, surface functionalization of silicon wafers is conducted by two independent approaches: (1) gold coating followed by self-assembling various alkane thiols and (2) direct formation of organic thin film of silanes via self-assembling. Currently, reaction conditions for the formation of these organic thin films is investigated by Fourier transform infrared spectroscopy with attenuated total reflectance mode (FTIR-ATR) and X-ray photoelectron spectroscopy (XPS).

Low Resolution Raman Spectroscopy in an Analytical Chemistry Laboratory

Presenter: *Alexander Y. Nazarenko*

A low-cost Raman instrument was introduced in an instrumental analysis laboratory. Several variants of Raman Spectroscopy experiment were tested: (1) Study of protonation reactions in solutions of polyatomic ions; (2) Quantitative determination of inorganic anions in solution; and (3) Identification and quantitative analysis of a multicomponent mixture. The peculiarities of data analysis and interpretation, as well as the limitations of low-resolution Raman spectroscopy, will be discussed. The laboratory set-up was tested with chemistry and forensic chemistry students at Buffalo State College in 2004 and 2005.

2-Phenylpyridine: An Extractable Electron Carrier Utilized in Active Copper Mediated Organic Synthesis

Presenter: *Gregory Ebert*

2-Phenylpyridine is a readily extractable compound that has been found to function admirably as an electron carrier to facilitate the formation of active copper. Activated copper, in turn, is used to produce functionalized organocopper reagents that are difficult or impossible to make by more traditional organocopper synthetic methods. When reactions using 2-phenylpyridine were compared with those utilizing more common electron carriers such as naphthalene and biphenyl, the yields and reaction conditions were found to be essentially the same. The ease with which 2-phenylpyridine can be extracted from the reaction mixture simplifies the workup and product isolation, and in many cases eliminates the need for a chromatographic separation.



College and Community Partnerships

Identifying, Showcasing and Connecting Partnerships on this Campus

Presenter: *Marian Deutschman*

How is a partnership defined on the Buffalo State campus? How does a collaborative relationship help to make the college distinctive? What is the relationship of partnerships to scholarly activity? What kinds of partnerships exist on this campus? What assistance is available for faculty and student involvement in partnerships? Is there a difference between outreach, public engagement, community engagement, and partnerships? What are the incentives for collaboration? This presentation is intended to answer questions that will enhance internal and external connections to help the college community build new and strengthened partnerships and collaborations that can leverage resources, support the Buffalo State mission and community, and enhance the college's reputation.



Communication

Intercultural Communication: A THEORY OF POINTS

Presenter: *Faizan Haq*

A pluralistic society acknowledges the co-existence of many cultures residing and mingling side-by-side. These cultures constantly provide opportunities to create points of interactions at places of cultural exchange, such as work, institutions of learning, market places, etc. These points of interactions, imagined to be located at the surface of spheres of cultural exchange, may be perceived as points of cultural transactions that eventually turn into points of resolution or points of conflict. There are notably many kinds and levels of resolutions and conflicts. This poster presentation advances the concept of this theory schematically. A presentation that discussed this theory in the context of public relations was also made at the AMSS (Association of Muslim Social Scientists) annual conference at Georgetown University in Washington D.C.



Computer Information Systems

Electronic Commerce: A COMPARATIVE STUDY OF SOME PRACTICES IN THE U.S. AND CHINA

Presenter: *William Lin*

Electronic Commerce (E-commerce, E-business) has grown very quickly in a short period of time. It pertains to the utilization of the Internet for business and personal transactions. Organizations with a Web presence can reach beyond immediate geographical areas into other regions, countries, and continents. At the same time, many issues have to be addressed, revolving around the societal, economic, legal, technological, and cultural environments in which participants reside. The U.S. is the unquestioned leader in the application and utilization of E-Commerce. Chinese users tend to rely on the Internet for communications and for accessing news, rather than for business transactions and E-commerce activities. Given the predicted growth of Internet usage in China, it is reasonable to assume that the nature of activities will become more diverse. This project aims to provide a better understanding of the potential benefits, and obstacles, to the application of E-commerce in this dynamic environment.

Internet Usage: A WITHIN RACE ANALYSIS

Presenters: *Sarbani Banerjee, Amitra Hodge*

The majority of North Americans have more access to the Internet today as compared to 10 years ago. Schools, libraries, homes, coffee houses, and workplaces are equipped with the technology needed to get people online. This research addresses a need to shift the focus from describing the digital divide (unequal access to the Internet) to describing the digital divide in usage. Research suggests that usage differences do exist between social categories, such as race/ethnicity, gender, education, income, region, and age. This research attempts to go beyond previous studies by exploring Internet usage by sex/gender, education, income, and age within the racial categories of white and non-white. Data is drawn from the Current Population Survey. Findings indicate that differences do exist within the categories of white and non-white. Furthermore, the study presents findings about the activities people engage in while on the Internet.



Design

Fire and Breath: CERAMIC FORM AND THE WORD

Presenter: *Carol Townsend*

A vocabulary of marks inspired by the patterns of the indigenous painted pottery of Crete, Mexico, and the pueblos of the American Southwest have often danced across the surfaces of this artist's ceramic forms. In recent years, attributed quotations have also appeared as part of the surface visual activity, written upon and into the clay. These inscriptions have referenced the act of writing, gardening, and the cycles of nature etc., depending upon the metaphoric quality of the form. As her interest in writing poetry has grown, she has explored the possibility of incorporating her own words on the skin of an appropriate form.



Dietetics and Nutrition

Childhood Obesity Screening Tools for Health Care Workers

Presenter: *Tejaswini Rao, Donna M. Hayes*

One in four children are now classified as being overweight or at risk — more than double the rate of a generation ago. Childhood obesity has multiple consequences, including increased incidence of type 2 diabetes mellitus; increased risk for adult obesity; hypertension and heart disease; social isolation; and decreased acceptance by peers and society. Given the multifaceted nature of obesity, utilization of screening tools addressing risk factors becomes critical to allow parents, educators, and health care workers to identify children at risk as early as possible. The presenters developed screening tools directed at the causes of obesity and growth measures to aid in identifying children at risk. These tools include body mass index, dietary, activity, and risk factor assessments.

Basis for Physiological Functioning of DHA/EPA/Omega-3 Fatty Acids

Presenter: *Suk Y. Oh*

The presentation illuminates the effects of DHA/Omega-3 fatty acids on human health and disease prevention/management. There has been a dramatic surge in publicity and the appearance of agri-foods enriched in omega-3 fatty acids, with a recent emphasis on DHA/omega-3. This trend is expected to rise exponentially in the near future, based on mounting clinical evidence for the key roles played by DHA/omega-3 fatty acids in human health (including brain/learning functioning, visual acuity), the prevention/management of cardiovascular disease, plus other chronic disorders (psychiatric/depression, etc.). Topics covered include:

- Role in the brain and retina (eye): DHA for mother and baby is an inseparable dyad.
- Role of omega-3 fatty acids in cardiovascular health is established.
- Emerging evidences of the effect of omega 3 fatty acids on psychiatric disorders including depression, Alzheimer's disease, schizophrenia, and violent behaviors.
- Other chronic disorders including auto-immune diseases.
- Estimated formation efficiency of DHA from alpha-linolenic acid in humans.
- Current intakes of DHA/Omega-3 fatty acids across the U.S. population in relation to recommended intakes for optimal health
- DHA/Omega-3 fatty acids from a U.S. regulatory perspective including food labeling, health claims, and future developments.
- DHA/Omega-3 fatty acids from a consumer and food industry perspective.



Earth Sciences and Science Education

The Buffalo River Area of Concern: COMBINING GEOLOGICAL AND ENGINEERING APPROACHES TO UNDERSTAND SEDIMENT DYNAMICS

Presenter: *Jill Singer*

The identification of remediation options and alternatives for the Buffalo River Area of Concern (AOC) requires an understanding of sedimentation processes in the river. To understand sediment dynamics, the researchers combined three independent approaches: Sediment Trend Analysis (STA), side-scan sonar mapping of river-bottom features, and three-dimensional hydrodynamic modeling. STA is based on a statistical examination of changes in grain-size characteristics between sample locations; for this study, more than 500 sediment samples were collected between the mouth of the Buffalo River and the upper limit of the AOC. The varied approaches are used in combination to elucidate sediment transport pathways and flow conditions in the river. All three independently confirm the significant role played by Lake Erie seiches in transporting sediment in an up-river direction, and each provides insights about short-term and longer-term processes controlling sedimentation within the river. This presentation highlights: results from each technique; benefits derived from using a combination of approaches to understand sediment dynamics in complex systems; and implications for management decisions. This project was funded by the USEPA-GLNPO program.

The Los Angeles and Buffalo Rivers: RESTORATION OF URBAN RIVER SYSTEMS

Presenter: *Jill Singer*

For the past 20 years, the Los Angeles River and the Buffalo River have been the focus of restoration efforts. While distinct differences exist between them, both rivers share common features that can serve as the basis for case studies to teach students about urban geology, engineering geology, and urban river restoration. Restoration efforts at both sites have been driven by citizen groups and have involved raising awareness of the existence and value of the rivers. Historically, both rivers have undergone extensive flood-control engineering and modification of their channels. However, due to recent habitat restoration projects within the riparian zone, people are beginning to see and value the rivers as more than simply providers of flood protection or conduits for industrial discharge. This presentation will provide an overview of the history and environmental issues, as well as the presenter's teaching and research activities, at both urban rivers. A Provost's Incentive Grant for Faculty Research, Scholarship, and Creativity provided partial support for this research.

Craters, Water, Ice, Volcanoes, and Wind: UNRAVELING THE GEOLOGIC HISTORY OF MARGARITIFER SINUS, MARS

Presenter: *Kevin Williams*

The main geologic process active on Mars today appears to be wind, but in the past, water and volcanic activity were likely widespread. In the Margaritifer Sinus region, several large river systems have cut through the surface. Although liquid water is not now stable on the surface of Mars, landscapes suggest that water in Margaritifer accumulated in low-lying basins and permeated into the subsurface, where it might have frozen as the climate changed to cooler temperatures. Several relatively young volcanic features exist at the convergence of three river systems. Related features suggest that this volcanic activity interacted with water or ice, contributing to a complex geologic story for the region. Using existing and new images and other data from Mars, Margaritifer Sinus is being mapped to understand the geologic history of water and volcanic activity in the region.

Science Education: WHAT CHANGED FROM 1900 TO 2006?

Presenter: *Don Birdd*

What can be learned about science education in the last century? What are the forces that drive curricular change? Who has jump-started "new" trends? How has the discovery of "new" scientific facts demonstrated the nature of science then, continuing through today? Tracing the history of science education curriculum development through inquiry from 1900 to the present provides evidence for analysis and interpretation. Have we moved forward?

Trace Element Loads in the Environment and in Ourselves: APPLICATIONS OF ENVIRONMENTAL GEOLOGY

Presenter: *Elisa Bergslien*

The major mineral component of bones and teeth is calcium phosphate, which is similar to the inorganic apatite group, and thus frequently called bio-apatite. The flexible crystalline structure of bioapatite can incorporate a variety of different trace elements; consequently, the local environment, and local geology, has a significant impact on the distribution of trace elements in mineralized tissues. By employing both powder x-ray diffraction (XRD), used for identification of crystalline materials, and x-ray fluorescence (XRF), used to determine elemental composition ($Z > 14$).

Forensically, this variability can be used to differentiate between cremated human remains and inorganic filler material. Anthropologically, trace element loads can be used to assess the health of a population, examine the transition from hunter-gatherer to agriculturally based societies, and examine trading patterns. Environmentally, trace element loads still affect our health, reflecting both geology (via groundwater ingestion and diet) and local pollutant levels.



Educational Foundations

Instructional Effectiveness Over Time

Presenter: *Frederick Howe*

This researcher looks at how students perceive the effectiveness of his courses (in Educational Psychology or Human Relations) three to four years after completion. A questionnaire and follow-up, on-line focus group were used to gain feedback from students about course objectives, assignments, assessment procedures, and usefulness of information learned, both personally and professionally. This procedure is explored as a model that faculty across disciplines can use to improve their teaching.



Educational Foundations / Adult Education

Gender Bias in Leader Effectiveness and Attributes

Presenter: *Gerri Hura*

This poster session reports the results of a 2005 study that assessed 204 male and female business leaders using two 360-degree leadership assessments: Leader Effectiveness Index (LEI) and Leader Attributes Inventory (LAI). Each leader was rated on leadership effectiveness and attributes by both a male and female observer (peers and direct reports). In addition, 73 percent of the leaders obtained feedback from their male and female supervisors. Results indicate that female leaders were rated higher by both male and female observers, while both male and female leaders were rated equally effective by their supervisors. Female leaders were rated higher on 17 out of 37 attributes by both male and female observers and on nine attributes by supervisors. For the remaining attributes, there was no difference in ratings by both the observers and supervisors.



E. H. Butler Library

Contributions of the Polish Community of Western New York

Presenter: *Wanda Slawinska*

Polish settlers came to Buffalo in increasing numbers after 1870. By 1873, they built their first church, St. Stanislaus, B. & M., and became recognized as a community. When that church proved too small, 28 more churches were built in rapid succession in Buffalo and surrounding towns. Several included schools which were to transform their pupils' lives, followed by convents, orphanages, colleges, publishing houses, the "Polish homes," and buildings to house community institutions as well as banks and business establishments. Besides church-related societies, people formed fraternal organizations, library and dramatic circles, singing societies, etc. Soon the community produced doctors, architects, jurists, social and charitable workers, mayors, congressmen, senators, and even war heroes. Three posters will show the growth and development of the greater Buffalo Polish community, beginning with their churches and schools, through their religious and fraternal organizations, to individual achievements in many fields of endeavor.

0 to 60 in a Flash: STEERING USERS TO RELIABLE ONLINE ARTICLES

Presenter: *Albert F. Riess*

Can a speedy, efficient hybrid satisfy every information consumer? Professors want students to use real periodical articles for research, while students demand the ease of Google. The presenter and his colleagues were driven to meet their needs! Reference and Electronic Database Librarian Al Riess developed the concept of two distinct databases in

conjunction with the EBSCO Publishing Company. Buffalo State librarians tested, tweaked and touted the databases: ArticlesOnlineFAST and Peer Reviewed Articles EZ were born! These mega-databases offer easy access to millions of online, full-text articles from magazines, newspapers, and peer-reviewed journals. Several EBSCO databases to which Butler Library subscribes are combined and featured in user-friendly interfaces. This poster session traces the evolution, development, and marketing of a winning collaboration.

From Acorn to Oak Tree

Presenter: *Marianne D. Muba*

Buffalo State College's E.H. Butler Library houses the Cecilia Bard Multicultural Library for Peace, an ongoing collection of books generously donated by Buffalo State professors Geraldine E. Bard and Betty J. Cappella. In addition to cataloging the books, now numbering more than 2,000, the library provides an online bibliography, previously time consuming and labor intensive to maintain. This poster examines the process developed to have new titles added automatically to the bibliography through the creative use of the Aleph Library Management System and some expert help from Andy Perry of SUNY's Office of Library and Information Services.



Elementary Education and Reading

Lessons from the Round Table: READING PROFESSIONALS FIND COMMON GROUND IN OXFORD

Presenter: *Wendy A. Paterson*

This presenter shares her experiences as an invited participant at the Oxford Round Table on the teaching of reading and the extension of literacy, held in July 2006. Her attendance was supported by a Provost's Incentive Grant, the Research Foundation and the Dean of the School of Education. Since the summer of 1989, hundreds of scholars and policymakers from around the world have come to Oxford to participate in focused "think tank" forums on issues of importance in educational policy. In a tense national climate where contrasting theories are referred to as the reading wars, it was remarkable to find common ground among the 34 participants in the Reading First discussions. From this extraordinary week of presentations, papers and discussions with reading professionals from across the United States, this presenter synthesized some common themes that she felt represent a consensus from a remarkably diverse group. This poster session displays highlights of those discussions.



Elementary Education and Reading / Physics

Physics Alternative Certification Candidates' Perceptions of Physics and Physics Teaching

Presenters: *Kathleen Falconer, Dan MacIsaac*

While alternative certification appears to increase and diversify the pool of teachers (Stevens & Dial, 1993), not a lot is known about alternative certification candidates' beliefs, attitudes, and values towards their subject discipline content and the teaching of the content, notably in physics. This is a report of a grounded theory study of the perceptions of physics alternative certification candidates (people holding bachelor's degrees in engineering or science who originally prepared for a technical career, but are now changing careers to become secondary school physics teachers).

Approximately half of the candidates in a physics alternative certification program were interviewed about their understandings of their content knowledge, and their attitudes and beliefs about physics and physics teaching. Results indicate that the candidates felt the program helped them develop a better understanding of their physics content through self-reflectively focusing on their own learning as well as on unfamiliar teaching methods. Candidates viewed their prior experiences as poor. They felt that science, especially physics, was a way of "making sense" and "understanding the world," so science and physics courses were very important, and so everybody could and should participate in them. Candidates constructed a new understanding of the science teacher's role as very different from the traditional teacher-centric role.



English

Transatlantic Stevenson: A CONFERENCE ON R. L. STEVENSON AT SARANAC LAKE, NY

Presenter: *Ann C. Colley*

Experience highlights of the Robert Louis Stevenson Conference, held in summer 2006 at Saranac Lake, NY, through pictures, documents, and a discussion of the conference topics. Also, learn about Robert Louis Stevenson's connection to Saranac Lake and why he spent the winter of 1887-1888 there. This presenter organized the conference, which was attended by more than 90 people from around the world.



Interference of Phenolic Fraction of Tobacco Smoke with PAH-induced Signaling

Presenter: *Jagat J. Mukherjee*

Polynuclear aromatic hydrocarbons (PAHs) present in tobacco smoke condensate (TSC) cannot account for the observed carcinogenicity of the TSC. The phenolic fraction of TSC (PFTSC), which is devoid of PAHs, exhibits strong tumor-promoting activity with PAHs. The mechanism of tumor promotion by PFTSC is unknown. The researchers fractionated PFTSC from TSC by differential solubilization. They observed that PFTSC significantly attenuates (\pm)-anti-BP-7,8-diol-9,10-epoxide (BPDE)-induced p53 accumulation. Since p53 is a tumor suppressor protein, the researchers hypothesize that the interference of BPDE-induced p53 signaling events may represent a possible mechanism of tumor promotion by PFTSC. They observed that PFTSC strongly inhibits BPDE-induced NF-kappaB activation without any effect on AP1 activation. PFTSC has no effect on BPDE-induced ERKs and p38 MAPK. PFTSC activates PKC and down-regulates BPDE-induced phosphorylation of PKC substrates. Inhibition of PKC delta by rottlerin attenuates BPDE-induced p53 accumulation. The possible role of PKC in PFTSC-mediated down-regulation of p53 and NF-kappaB has been suggested.

Mutagenicity in Salmonella of Sulfur-containing Polycyclic Aromatic Heterocycles and their Dihydrodiol Derivatives

Presenter: *Subodh Kumar*

Sulfur analog of Polycyclic aromatic hydrocarbons (thia-PAHs) present in cigarette smoke are not as extensively studied as PAHs for their mechanism of carcinogenic action. Earlier, the researchers reported the synthesis of dihydrodiol and sulfone derivatives of weakly mutagenic benzo[c]phenanthrene (B[c]Ph) and two sulfur analogs phenanthro[3,4-b]thiophene and phenanthro[4,3-b]thiophene. Here, they report their mutagenicity in strains TA98 and TA100 of *Salmonella typhimurium* to investigate any correlation of mutagenicity with their potential metabolic activation pathways. Data indicate that the 3,4-dihydrodiols of B[c]P and phenanthro[4,3-b]thiophene are 10- to 34-fold more active than their parent compounds, whereas 3,4-dihydrodiol of highly mutagenic phenanthro[3,4-b]thiophene was ~7-fold less mutagenic than its parent compound. Interestingly, phenanthro[3,4-b]thiophene sulfone, which showed exceptionally high mutagenic activity in both TA98 and TA100 strains, was twice as mutagenic as phenanthro[3,4-b]thiophene in TA100. These data suggest that, unlike phenanthro[4,3-b]thiophene and B[c]P, the mutagenic phenanthro[3,4-b]thiophene, which may contribute significantly to the mutagenicity of tobacco smoke, is most likely to be activated via sulfone rather than via dihydrodiol pathway. [This study was partially supported by Philip Morris USA, Inc.]



Exceptional Education

The Effects of Cultural Based Software on the Academic Motivation and Engagement of African American Learners

Presenter: *Satasha L. Green*

There is a need to respond to the reading disparities of African American English (AAE) speakers. Without interventions that address their unique needs, disparities are likely to continue. Therefore, the question remains, what can be done to improve the reading performance of AAE speakers? Poor performance in reading is symptomatic of disinterest. If this disinterest could be reversed, African American students' performance could improve. This may require providing instruction that is culturally and linguistically responsive. This study examined the use of a computer program, CARR, on AAE speakers' motivation and academic engagement in reading. Participants were AAE speakers in SPED or at-risk for SPED placement reading below grade level. In a 12-week open-trial, students were exposed to CARR with measures collecting their engagement, plus an additional component of interviews. Results suggest that CARR may be effective in reading motivation and engagement for this population.

Taking Back America's Children: A GUIDE FOR DISCIPLINE AND COMMUNICATION IN 21ST CENTURY AMERICA

Presenter: *Raquel Schmidt*

This presentation summarizes "Taking Back America's Children: Positive Corrective Discipline in the Classroom, Home, and Community," a manuscript being submitted for publication. The goal is to provide a template for parents, teachers, and community members to communicate and work with youth who are most at risk for school failure. The majority of students who are most at risk are members of a minority ethnic group and/or classified with a disability. This session will provide hands-on strategies for working with individuals from a different cultural or socioeconomic background. The focus is on successful interactions across age, gender, social class, and race.

White Teachers, Brown Students

Presenter: *Raquel Schmidt*

In a summary of a manuscript being prepared for publication, this presentation focuses on racial inequalities in today's school population, as defined by race and social class. The majority of schoolteachers in the United States are white females, and most have not been adequately prepared to deal with the level of ethnic diversity in today's urban and suburban classrooms. These issues are examined, along with strategies for successful cross-cultural interactions in the school and community.

Infusing Magic in Instruction

Presenter: *Bruce Baum*

Magic can be included in instruction for several purposes:

- to stimulate students' cognition and imaginations;
- to reinforce or provide an example of selected content;
- to provide a brief mental break when students have been attending for some time.

A number of magic tricks require little special equipment or expense and can be learned with minimal time and effort. These include card tricks and tricks with objects that can be found around the office or house. A number of tricks cost \$5 or less and can be learned and performed with little difficulty. In this session, learn one or more magic tricks to apply in instruction. A handout reviews principles of magic, and outlines the procedure for conducting one or more tricks.

What Works to Shift Perspectives about Difference?

Presenter: *Barbara J. Dray*

This presentation reveals findings about what works to shift perspectives about difference. Findings come from a larger study of white, female special education graduate students exploring the interrelationships between their life experiences and their exposure to diversity-related coursework toward developing a critical consciousness about difference in education (e.g., race, class, language dominance, ability). Collaborative Inquiry was used to both gather the life histories and make meaning of the data. Implications for teacher education will be discussed.



Geography and Planning

Preliminary Analysis of Ground-based Laser Scan Remote Sensing on Organic Pollution in the Bai Yang Dian Lake, Northern China

Presenters: *Tao Tang, Wenji Zhao, Huili Gong*

Bai Yong Dian is the largest natural lake in the Northern China Plain, with a total area of 366 square km. Eutrophication of the lake water is intensive due to long-term human activities (agricultural and aquaculture productions) in the lake region. The objective of this research is to explore a fast means of quantifying and visualizing eutrophication using laser scan remote sensing. A Riegl LMS-Z420 laser scanner was employed for the field survey. 3D images of chlorophyll a particle distributions were obtained. Hydro-lab measuring of chlorophyll a was also conducted concurrent to the laser scan for comparison of the results. Results indicated that there is a positive and significant relation between solid particles detected and chlorophyll a content in the lake. The study suggests that Lidar scan can be applied to detect 3D spatial distributions of chlorophyll a in the water body.

SUNY Internationalization Program: A FIELD EXPERIENCE IN CAMBODIA

Presenters: *Kim Irvine, Stephen Vermette, Tao Tang*

With funding from a Chancellor's Award for Internationalization, the Department of Geography and Planning sponsored a three-week field experience in Cambodia and Thailand for 10 students in summer, 2006. These competitive grants, initiated in response to SUNY's long-range goal for increased internationalization, provide SUNY students with academic experiences in countries that are less commonly visited. The Buffalo State students were a multidisciplinary group, with majors ranging from Environmental Planning to Theatre, but the central theme of the field experience was sustainable development in a developing country. This poster summarizes the student experiences as they traveled from Bangkok to Phnom Penh, and subsequently to a village with no electricity or running water, the underdeveloped beach area of Kampong Som, and the magnificent temples of the Angkor Empire near Siem Reap that are experiencing increased pressure from a growing tourist population.

Residential Mobility: A NEW LOOK USING THE AMERICAN COMMUNITY SURVEY

Presenter: *Wende Mix*

The American Community Survey (ACS) conducted by the U.S. Census Bureau is a continuous measurement survey that provides annual statistics at various levels of geography on residential mobility and many other socio-economic characteristics. Recently, researchers have been studying variable distributions from the ACS in relation to comparable data collected in the Decennial Census. The focus of these studies has been to assess the new survey methodology and provide guidance on data issues arising from its implementation. This presenter's research focuses on comparing data distributions associated with mover profiles for 21 cities and their surrounding counties over four years. She investigates the question of differences in mover profiles among urban areas as well as between cities and their surrounding counties. The principal opportunity presented by the ACS is the provision of statistical summaries of movers' characteristics based on a single year (as opposed to five years). However, issues based on sample size and geo-coding/location responses are evident.

Storms of Tropical Origin: A CLIMATOLOGY FOR NEW YORK STATE, USA (1851-2005)

Presenter: *Stephen Vermette*

Seventy-six storms of tropical origin, including 14 classified hurricanes, have passed over New York State between 1851 and 2005. Long Island experiences a disproportional number of hurricanes and tropical storms. At \$1,901.6 billion, New York ranks second (just behind top-ranked Florida's \$1,937.4 billion) in insured coastal properties. On average, hurricanes occur once every 11 years and storms of tropical origin (all types) occur once every two years. September is the month of greatest frequency for storms of tropical origin. Storm activity was greatest in both the late 19th- and 20th centuries. During periods of increased storm frequency and intensity, storms reached New York State at progressively later dates. While the number and timing of storms of tropical origin is likely to increase, this appears to be attributed to a multi-decadal cycle, as opposed to a trend in global warming.



Great Lakes Center

The Effect of Soil Freezing on N Cycling: COMPARISON OF TWO HEADWATER SUBCATCHMENTS WITH VARYING SNOWPACK, HOKKAIDO, JAPAN

Presenter: *Sheila Christopher*

In Hokkaido, Japan, snowpack depth decreases from west to east. This snowpack depth gradient provided a unique opportunity to test the effects of variable snow pack and soil freezing on N cycling. The UN catchment in eastern Hokkaido had a mean annual NO₃⁻ concentration of 2 mg N L⁻¹ and had deciduous trees, while the M3 catchment in western Hokkaido had a mean annual NO₃⁻ concentration of 0.1 mg N L⁻¹ and contained mixed deciduous and coniferous tree species. Uryu litter had a higher C:N ratio, lignin:N ratios, and lignin concentrations. These differences in litter quality resulted in higher NO₃⁻ concentrations in the drainage waters of Shibecha versus Uryu. Shibecha sites, experiencing severe soil freezing, had relatively high rates of soil N cycling compared to sites that had little soil freezing. Variability in NO₃⁻ concentration in Shibecha versus Uryu streams were attributed to differences in tree species composition as well as the magnitude of soil freezing.

Developing a Geospatial Datum to Understand Lacustrine Dynamics in Lake Erie

Presenters: *Gordon Fraser, John Freidhoff, Caleb Basiliko*

The Great Lakes Center at Buffalo State College uses automated electronic data loggers, Arc View GIS, and EVS-PRO three-dimensional visualization software to develop spatial models of the physico-chemical parameters in eastern Lake Erie. Seabird data loggers are deployed during monitoring cruises to measure temperature, pressure, O₂, PAR, Eh, pH, chlorophyll A, and turbidity. Stations are occupied at a maximum grid spacing of 10 kms in order to provide the data density needed to develop valid spatial statistical models. The data is entered into EVS PRO software for 3-dimensional krigging and model development. The models can include fully bounded and color-mapped 3D isovolumes and 3D colored isolines, exploded layers of selected value intervals, interactively positioned horizontal and vertical slice planes, configurable 3D labeled axes, and rectilinear or offset convex hull-bounded griddings. Still views and animations can be provided to show rotations and translations of selected parameters in order to achieve optimum viewing perspectives. Two-dimensional maps showing spatial variations in the depth to the thermocline also can be developed in ArcView GIS to serve as a datum to which other parameters can then be related. Spatial variations in the shape and thickness of the thermocline also can provide information on hydrodynamic parameters in the lake.

Environmental Conditions Associated With Botulism Outbreaks in Eastern Lake Erie

Presenters: *Alicia Perez-Fuentetaja, Mark Clapsadl*

Avian and fish botulism outbreaks have taken place since 1999 in eastern Lake Erie. These outbreaks were caused by *Clostridium botulinum* type E, a toxin-producing bacteria that thrives in anoxic substrates rich in organic material. Researchers studied the environmental conditions associated with the 2002 botulism outbreaks and the presence of *C. botulinum* type E cells and spores in the lake sediments. Samples were taken at three stations from each of two sites of different depths in the Dunkirk (New York, USA) area. Depth influenced physico-chemical and biological processes in the sediments. Principal components analysis (PCA) showed that shallower areas exhibited marked changes in dissolved oxygen, pH, redox potential and specific conductance during botulism outbreaks. The quantitative polymerase chain reaction (Q-PCR) was used to quantify the levels of the *C. botulinum* type E bacterium in the samples. Sediment samples contained a patchy distribution of type E spore concentrations (from not detectable to 5,520 DNA copies/mg). Samples of benthic invertebrates tested positive for *C. botulinum* type E spores in tissues. Results show that *C. botulinum* type E is present in sediments at different depths and at different times through the ice-free season. Environmental conditions that induce mixing seem to precede botulism outbreaks and contribute to the pathogen's dispersion to other areas.



Health and Wellness

Educational and Policy Concerns of the Academic Athlete: WELLNESS

ADVOCACY AND THE COLLEGIATE COMPETITOR

Presenters: *Catherine G Ansuini, Thomas M. Ansuini, Jon Lindner*

This study was designed to assess the educational and policy concerns of experienced collegiate athletes. A quantitative (significance criterion $p < .0001$) design was employed with data compiled from 14 collegiate institutions in the northeastern United States.

Researchers contacted and administered a self-report questionnaire over one year (April 2004-2005), surveying collegiate athletes ($N=594$) with at least one year of varsity experience. Male and female (302/292) competitors represented Division I (94/87), Division III (130/176) and private (68/39) institutions. Females scored higher than males on all academic performance measures [($p < .0001$) mean difference in grade point average = .26 (t -value=4.41) academic probation placement difference = 10.5 (t -value =3.8)]. No other significant differences were found.

Respondents universally supported additional tutorial assistance, on-campus employment, food vouchers, equipment, uniforms, health/wellness training, transportation, and financial support.

Lowered behavioral standards, ethical conduct, academic rigor, and mandatory curfew were not supported.

Competitor stress was attributed more to fan influence (corporate dollars, zealous parents, and community supporters) than institutional size. Chi square group analyses were not significant.

Reports regarding the educational and ethical priorities of academic athletes frequently distort and misrepresent their expressed desire to achieve overall excellence. Future research, including input from the academic athlete, appears warranted.

Prevalence of Protective Factor Wellness Resources

Presenter: *Catherine Ansuini*

This investigation sought to ascertain the prevalence of Web-based resources crafted to advance the well-being of case workers, parents and children in the foster care system. Researchers performed a comprehensive review of evidence-based literature and compiled findings at a large, public college within a state university system in the northeastern United States.

Five researchers (one professor, one social service program administrator, and four graduate students) examined related information over seven months (September through March, 2005). Online searches were performed for articles published through March 2005 which cross-referenced foster care, social services, and: (1) wellness, (2) protective factors, (3) health, (4) stress, (5) nutrition, (6) fitness, and/or (7) risk factors. Articles were assessed for evidence of instruction related to risk identification, risk reduction, protective/proactive advice, prevention behaviors, or wellness development.

While findings estimate that 25 percent of foster care children are homeless by age 19 with 20 to 50 percent unwell and victims of abuse, the literature review revealed a complete void in protective factor wellness resources for this population. Additionally, tangent populations of youth at risk were identified, all reflecting the same lack of protective information available for their access. The absence of protective resources, coupled with the current climate of affordable and accessible Web-based information, make it timely and prudent to explore the efficacy of utilizing technology as a mechanism for delivering proactive wellness information to individuals throughout the foster care system.

Individuals with Diagnosed Eating Disorders Evaluate the Wellness Outcomes of Group Intervention

Presenter: *Catherine Ansuini*

This study assessed the effectiveness of group intervention techniques intended to improve well-being among individuals with diagnosed eating disorders. Information was collected and analyzed via a qualitative research design using convenience sample survey data collected over five years (2000-2005).

Confidential interviews were conducted at a large, public college within a state university system in the northeastern United States. The study was announced to all members of the participating campus community. Respondents self-

identifying with eating disorders, who completed individual counseling and actively attended group sessions to promote well-being, were selected to participate. Standard questionnaires were administered to assess client appraisals of outcome expectancy, treatment impact, self status, goal achievement and health sustainability.

Responses included 142 inquiries and 32 appointments, with 26 completed interviews. All subjects (22 females and 4 males) identified limited access, expense, and societal insensitivity as research participation and treatment barriers. Respondents identified low self status (52 percent), inability to achieve (67 percent) or sustain (68 percent) well-being, and the Thin is Phat! cultural mixed-message, as negatively impacting group session outcomes (93 percent). These factors were also identified as major contributors to failed voluntary treatment once (100 percent), twice (54 percent), three or more times (33 percent); involuntary treatment referral (12 percent); falsifying behavior to counselor (82 percent); and suicide attempts (3 percent).

It was concluded that effective treatment programming for eating disorders requires the creation of new intervention strategies. Client insights are critical to identify barriers and unforeseen negative influences, and to promote strategies to better insure wellness outcomes.

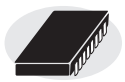


History and Social Studies Education

Are We Fighting the Same War?: POSTCARDS AND POPULAR PROPAGANDA IN THE GREAT WAR

Presenter: *Andrew Nicholls*

This presentation will discuss contemporary views and images of the Great War (1914-1918) as represented through the medium of postcards. During the early 20th century, postcards were a ubiquitous form of mass communication, and in the crucible of war, the images they featured often reflected popular tastes and opinions. While it is generally assumed that governments and elites were the sources of wartime propaganda, these cards and their messages demonstrate a much broader phenomenon known as ‘propaganda from below.’



Instructional Resources

How Technology Can Be Used to Help You

Presenters: *Kaylene Waite, Bruce Fox, Ken Giangreco, Paul Smith, Meghan Pereira*

Instructional Resources provides a wide range of services to the faculty and academic departments at Buffalo State College. Our staff is available to provide graphics, multimedia, and technical support for academic research and presentation in and out of the classroom.

Computer Graphics is available to consult, advise and help the faculty and staff to produce visuals and multimedia programs for research support as well as instructional use. Whether it's a quick question on computer graphics, the production of a multimedia program, the creation of posters or brochures for conferences, or the creation of visuals for an entire course, our staff is here to help.

Photography provides services such as studio and location photography, digital photographic printing, copy work and slide duplication, scanning, and E-6 film processing. Want to convert all those old slides to digital? Our staff can help you with that.

Multimedia Production provides cutting edge tools for the faculty and staff of Buffalo State College. Our staff provides new media technologies such as podcasting and online video presentation as well as traditional television production capabilities. If you need web or pod casting services, our staff can support you with high quality video and sound recordings.

Electronic Learning provides support for the design and development of online and hybrid courses. The office coordinates training and support for the current campus-supported course management system, ANGEL. Electronic Learning can assist faculty in identifying appropriate online resources, along with providing best practices for the creation and use of electronic materials to support instruction within ANGEL.



Mathematics

Survival of an AIDS Cohort in Thailand (2000-2005)

Presenter: *Chaitali Ghosh*

Researchers determined survival from the time of AIDS diagnosis to death in a retrospective cohort of 5,197 men and 6,542 women between the ages of 15 and 24. All received medical care at public and private hospitals in Thailand after being diagnosed with symptomatic HIV-positive or AIDS between 2000 and 2005. Risk ratios and 95 percent confidence intervals were estimated by the Cox proportional hazards model, adjusting for age, gender, marital status, occupation, region of residence and year of diagnosis.

Significant increased risk of mortality was observed for patients with AIDS as compared to those with symptomatic HIV-positive, the risk being approximately twofold for men and patients from the northern region, and threefold for women and patients in the other regions of Thailand. Stage of disease at diagnosis was the best prognostic factor associated with survival — a result that warrants increased attention to the early diagnosis and treatment of these patients.



Modern and Classical Languages

Biblical CSI: DISSECTING A TIMELY POEM

Presenter: *Michael Johnson*

The famous poem on time (Ecclesiastes 3:1-8) is presented as a riddle game. The poem delineates a wide range of human activities and a full spectrum of physical faculties. It serves as an implicit catalog of visibly important parts of the human body: the parts are encrypted in the acts of which they are distinctively capable and for which they are necessary. The passage gives poetic support to the teleological rationale for the human physique. Over 30 form-function links can be made on the interactive poster game board display.



Physics

Magnetism and Superconductivity in Rare Earth Ruthenium Intermetallics

Presenter: *Dermot Coffey*

Magnetism and superconductivity are usually thought to be mutually antagonistic phenomena. However, there are systems in which magnetic properties seem to exist with, and are even thought to be responsible for, superconductivity. The hiTc materials, for example, order antiferromagnetically when undoped. The problem of ferromagnetism coexisting with superconductivity is more controversial. The intermetallic $Ce_{1-x}Gd_xRu_2$ compounds have been investigated because they are superconducting for $x < 0.12$ and were thought to be ferromagnetic for $x > 0.2$. However Mossbauer spectra show that they do not order at low temperatures in spite of strong indications in high temperature susceptibility data that they should at about 90K. The question of interest is: How do these materials avoid order and is this mechanism connected to superconductivity?

Phase Transition in $SrRu_{1-x}Mn_xO_3$

Presenters: *Michael DeMarco, Dermot Coffey, Neil Miller, Griffin Harmon, Bryan Graves*

$SrRuO_3$ is a ferromagnet. $SrMnO_3$ is an antiferromagnet. Doping $SrRuO_3$ with Mn produces a compound $SrRu_{1-x}Mn_xO_3$ with manganese substituting on the Ru sites. This hybrid compound starts to undergo a phase transition at $x = 0.3$ from the ferromagnet to the antiferromagnet. Measurements using the Ru^{99} Mossbauer effect show that the internal magnetic field at the nucleus undergoes a change from 30T to 50T while the Ru ion state changes from +4 to +5 as the Mn is doped into the compound. It is interesting that the phase transition shows a change in ion state to +5. This implies a mixed valence state for Mn in the hybrid compound in order to accommodate charge neutrality in the compound.



Physics / Mathematics

A Cellular Automaton with Interesting Fractal and Combinatorial Properties

Presenters: *David Etestad, Joaquin Carbonara*

Cellular Automata (CA) has played a significant role in Mathematical Modeling and Game Theory (e.g. Conway's game of life). Wolfram's controversial book *A New Kind of Science* is a good reference to the potential and breath of CA. In their current work, the presenters relate a Cellular Automaton first proposed by Barry Cipra, which was inspired in a Statistical Mechanics problem, to Combinatorial and Fractal Theory. The CA is easy to describe as follows: Arrange n cups in a circle, each containing one stone, and a cup denoted as special. This is configuration 1. If the cups are in configuration n , configuration $n+1$ can be obtained by picking up all the stones in the special cup and distributing them clockwise, one stone per cup. The cup that the last stone goes in is the new special cup. The configurations can be represented as a matrix. The researchers derive a number of unexpected properties of this matrix, including a formula for the total number of rows, its fractal dimension, and how it is related to Pascal's triangle, a fundamental structure in finite mathematics. The authors published two papers on this problem.



Psychology

The Impact of Commuter Stress on Subsequent Visual Motor Performance

Presenter: *Dwight Hennessy*

Following their commute to Buffalo State, participants completed a questionnaire battery (in their vehicle) regarding their state driving experience (including state driver stress levels). They then reported to a laboratory where they were randomly assigned to complete a series of "easy" or "insolvable" visual spatial tasks in five minutes. The insolvable tasks were designed to create task frustration, as participants could not complete even a single task, whereas participants in the easy group could complete all tasks within five minutes. Each participant then completed the same series of "moderate" tasks and were evaluated on accuracy and time spent. As anticipated, errors and time increased only with the interaction of commuter stress X task frustration. Specifically, errors and time were greatest among those with both elevated commuter stress and subsequent frustration, which confirms the potential for carryover of negative driving experiences to subsequent environments.

Frequent Change of Academic Major: A SIGN OF TROUBLE?

Presenters: *Jill M. Norvilitis, Howard M. Reid*

Although research has identified a connection between career uncertainty and negative effects on academic achievement (Orndorff & Herr, 1996), the relationship with psychological well-being is less clear. The present study examined the relationship between the number of times students changed academic majors and measures of well-being in 283 college students. Those who change majors more frequently are more likely to report low self-esteem, high levels of self-reliance, and greater ADHD symptomatology [$R = .36$, $R^2 = .13$, Adj. $R^2 = .11$; $F(3, 198) = 9.57$, $p < .001$].

The Associations between Prenatal Poly-drug Exposure and Autonomic Regulation at One Month of Age

Presenter: *Pamela Schuetze*

This study tested a conceptual model examining concurrent associations between autonomic regulation and maternal behavior during interactions as a function of prenatal poly-drug exposure and fetal growth. One hundred sixty-three mother-infant dyads (91 poly drug exposed, 72 comparison) were recruited for a longitudinal study of cocaine exposure and child development. Infant autonomic regulation, measured at 4 weeks of age during 15 minutes of sleep, included heart rate and respiratory sinus arrhythmia (RSA). Maternal behavior was assessed during a 10-minute feeding interaction which was coded using the Mother-Infant Feeding Scale (Chatoor, 1986). Path analysis was used to examine associations between prenatal substance exposure, maternal behavior and fetal growth. Infants who were prenatally exposed to more cigarettes, alcohol and cocaine had lower birth-weights. Infants exposed to more cocaine and cigarettes also had a significantly shorter gestation. Infants with a smaller birth-weight had significantly higher heart rates. Increased heart rates also were associated with higher levels of maternal insensitivity.

Renewing First Responders' Relationships

Presenter: *Robert Delprino*

The occupations of first responders (fire fighter, police officers, EMTs) can place a great deal of stress on marital and family relationships. This presentation describes a proactive program aimed at assisting first responder couples in developing coping and resiliency skills to better understand each other's perspective, open communication channels, and minimize the negative effects of the job on family relationships.



School of Natural and Social Sciences

The Academic Wiki: COLLABORATIVE WEBSITES IN COURSE DEVELOPMENT AND IN THE CLASSROOM

Presenters: *Karen O'Quin, Lydia Fish, Howard Reid, Kevin Hayes*

This presentation introduces potential uses of wikis, collaborative Web sites, in an academic setting. A well-known example of a wiki is Wikipedia (<http://www.en.wikipedia.org>), the world's largest encyclopedia, which is constantly being updated by its users. The presenters will review the use of wikis from three perspectives: a faculty member in a classroom, the chair of a campus-wide course development effort, and an academic administrator. In addition, a fourth member of the team will provide insights into the steps needed to set up and use a wiki.

Dr. Lydia Fish will explain how students in her honors seminar and folklore course have used wikis to complete a fieldwork project that includes an analytical essay. The wiki enables students to turn these into collaborative projects, as they work not only with their classmates, but with students in other classes exploring the same topic. Dr. Howard Reid has been involved in developing the new BSC 101 course for first-year students. A wiki was set up during spring 2006 for the diverse group of faculty teaching the course. The wiki potentially permits these faculty to propose mini-themes, define the content, and identify supporting materials, all with a minimum of administrative oversight. A major advantage is that faculty members maintain control of course development. This may well be the first use of a wiki within SUNY for course development. Pros and cons will be discussed.

Dr. Karen O'Quin, Associate Dean of Natural and Social Sciences, will discuss the advantages of wikis from an administrator's perspective. Mr. Kevin Hayes will demonstrate the ease with which a wiki is created and edited. He will show how users are able, asynchronously, to contribute and revise material freely. For instance, formatting is kept simple and it is easy to "roll back" a page to a previous version.



Social Work

Collaborating with Community Agencies to Develop Innovative Programs for Foster Youth

Presenter: *Louis A. Colca, Trina Fowler*

Public and private not-for-profit agencies have experienced a decrease in funding for youth in foster care, severely limiting their ability to provide quality services for this disadvantaged population. Conversely, the needs of youth in foster care have increased. This has resulted in adverse affects for foster youth, including disrupted placements. Also, youth are not being prepared to return to their biological homes, move out on their own, or address issues related to being adopted.

Buffalo State is in a unique position to provide the leadership to develop and implement programs and services that can dramatically affect the lives of youth in foster care. The talents, resources and expertise of faculty and students are key components in helping to bridge the gap between the services traditionally offered by agencies and the needs of foster care youth. The programs have provided many foster youth with services that have led to a reduction in delinquency rates and an increase in the number of youths graduating from high school and attending college. This presentation will focus on programs developed for foster youth during the past eight years, and the methods used to design and implement them. These initiatives have provided leadership and acted as a stimulus for the development of programs by foster care agencies. The programs have also provided essential, direct services to a large number of foster youth. Buffalo State students also have benefited through unique educational experiences.

Active Learning Strategies in Social Work Research Class

Presenter: *Ronnie Mahler*

This presentation illustrates innovative learning strategies and their impact on juniors studying social work research. The students experienced various active learning strategies to promote interest, ownership, and learning. In teams, they researched anxiety, postpartum depression, and alcohol abuse. Teams were tasked to define and describe problem prevalence, search for screening tools, and explore theories about causation and treatment. Through PowerPoint presentations, they explained their research and its application to a single case study.

Students also actively participated in an educational intervention on conflict resolution. Learning to be competent mediators is critical for social work professionals who encounter people and systems in conflict. Using Excel, students determined whether their own knowledge of conflict and mediation increased significantly as a result of the brief intervention. Students wrote their findings according to journal expectations. By participating in each step of the research model, they learned first-hand about the process and products of research.

E-Mentoring in Social Work: USING TECHNOLOGY TO NETWORK WITH PROFESSIONALS

Presenters: *Ronnie Mahler, Deborah Renzi*

Educators and professionals from diverse disciplines have recognized the virtues of mentoring to boost educational achievement, college retention, and professional development. Navigating college courses and committing to a major can be especially challenging for students who are first in their families to go to college. Being mentored by professionals could ease their anxiety. Although mentoring relationships are recognized as extremely valuable, if left to develop naturally, their occurrence is relatively unusual. Many students who work and/or may be raising a family can hardly find the time to complete assignments.

Recently, however, computer technologies have fostered the growth of E-Mentoring, where on-line relationships, guidance, and exchange of information are more readily accessible via the Internet. This presentation will showcase the E-Mentoring program that enhances the Social Work Department's Web page and helps students network with social workers from diverse fields of practice. The presenters will dialog about the purposes of E-mentoring; the recruitment process; efforts to forge mentoring relationships; and methods for evaluating the impact of E-Mentoring. The presenters believe that E-Mentoring is a promising approach to further develop students' profession-

al awareness, resiliency, communication skills and career networks. Visionary leadership in higher education will bring students to on-line solutions like E-Mentoring.



Sociology

Perceptions and Experiences of Male Students at Texas Woman's University

Presenter: *Amitra A. Hodge*

Do male students at Texas Woman's University perceive themselves as a minority group? This researcher posed this question in 1999 - three years after a federal judge ruled that the university was constitutionally obligated to open its academic programs to men. Overall, responses suggested that undergraduate males at TWU do not consider themselves a minority group. The majority of respondents agree that faculty treat them the same as they do females and that male students are treated the same as females on campus. The purpose of this study is to analyze the perceptions and experiences of undergraduate male students attending Texas Woman's University. This data will be compared with the data gathered in 1999.

Psychological Tensions Found in Suicide Notes: A TEST FOR THE STRAIN THEORY OF SUICIDE

Presenter: *Zhang Jie*

As a comprehensive and parsimonious theory explaining the socio-psychological mechanism prior to suicidal behavior, the strain theory of suicide postulates that conflicting and competing pressures in an individual's life usually precede a suicide. The theory proposes four sources of strain leading to suicide: (1) value strain from conflicting values, (2) aspiration strain from the discrepancy between aspiration and reality, (3) deprivation strain from relative deprivation such as poverty, and (4) coping strain from deficient coping skills in the face of a crisis. This research has content-analyzed 40 suicide notes (20 by suicide completers and 20 by suicide attempters) and found strong support for the strain theory of suicide. Although little is found in the number and pattern of strains between the completers and attempters, both groups have many aspiration and coping strains and few value and deprivation strains. Also, the older a suicidal victim is, the more he/she feels deprived and lacks coping skills, and feels less bothered with value conflicts. Although the study has offered some support for the new theory, future research with more rigorous quantitative data needs to be conducted to further test the theory on a more comprehensive level.



Sociology / Criminal Justice

A Preliminary Examination of the Transformation of China's Judicial Practices

Presenters: *Timothy McCorry, Virginia Grabiner, Kathleen Contrino*

Economic and cultural reforms over the last two decades have dramatically changed Chinese society. The presenters will focus on the tremendous changes taking place not only within the Chinese society, but also within China's judicial system. Specifically, in their review of the literature, the researchers examine the legacy of Confucian and Maoist traditions on the legal system. They then focus on the impact of changing economic and cultural traditions on China's judicial system. However, based on the limited information and data on this topic, their study provides preliminary evidence of the transformation of the judicial system from the perspective of the judges themselves.



Student Personnel Administration

Deans of Women at Historic Black Colleges: A Story Left Untold; A History of Innovation at the University of Pittsburgh: THE ROLE OF THE

STUDENT PERSONNEL DEAN, 1919-1980

Presenters: *Richard Herdlein, Christine Frezza*

There is a paucity of historical discourse on the role of the deans of women in American higher education. Even less attention has been paid to the distinctive role of African American women serving as deans at Historic Black Colleges and Universities. Using historical research and the case study approach, this analysis focuses on three deans of women covering a period of 84 years (1922-2006). The research indicates that deans of women were highly educated and accomplished idealists who made significant contributions to the holistic development of African American students, historic black institutions, and the student personnel movement in the South. *A History of Innovation at the University of Pittsburgh: The Role of the Student Personnel Dean, 1919-1980* provides a fascinating history of the evolution of student affairs and the chief student affairs officer position during the 20th century. The study highlights the program nurtured through the Dean of Women's Office, a development of historical significance featuring one of the nationally recognized leaders in the early years of student affairs. Scholars and supporters of women's issues will experience an enlightening picture of women's education in the first half of the 20th century. The research involved extensive use of archival materials at subject institutions and the development of oral histories through taped interviews with central figures in the manuscripts. Qualitative research provided rich, thick descriptions of the events and facilitated the development of conclusions and suggestions about how the past might provide insights for the present and the future.

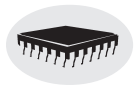
Carmen's Home: A PORTAL TO BUILD RESOURCES AND COMMUNITIES FOR TEACHING AND LEARNING

Presenters: *Timothy Gallineau, Carmen Iannacone, Angelo Conorozzo, Faizan Haq*

Although academia is making use of different forms of Web-based discussion boards and blogs as teaching and learning tools, the use of wikis is a relatively fresh idea. Combining these tools to form communities and instructional resources remains an exciting idea. Carmen's Home brings this idea to life. The Guidebook project has gone through many improvements. Now, it has been reborn with the implementation of wiki technology, combined with a database-driven, dynamic Website. These developments have empowered the project's managing committee to not only include multifaceted usage of the Website, but also to envision and implement one portal of information, interaction, and collection of sources of validated research (or for validation of research) regarding teaching and learning. This presentation explains the new features and demonstrates the metamorphosis of the project from The Guidebook to Carmen's Home (<http://www.carmenshome.org>). The Guidebook remains an integral part of the new online information portal, but now also includes three distinct areas of interest for users:

1. Carmen's Faculty Orientation: Once fully functional, this area, now under development, will provide an online opportunity for new or part-time faculty to share information, problems, and solutions with each other.
2. Carmen's Courses: Carmen's Home also will offer online course setup with the help of ANGEL for participants and contributors to develop content or content enhancers, such as multimedia concepts and learning points. This area can eventually offer courses developed to address the learning and teaching needs identified in Carmen's Guidebook.
3. Carmen's Roundtable: Within this area of general discussion and content development, participants and contributors freely exchange ideas, share findings, and initiate collective research projects.

The original idea was to develop virtual instruction and learning communities designed and supported through the expertise of accomplished, reputable practitioners. Carmen's Home content deepens not only the understanding of the content but also invites application of ready-to-use strategies that are empirically effective in diverse higher education learning and organizational training environments.



Technology

Mathematical Modeling of Electric Power Distribution Systems for Electrical Drives of Oil Wells Displacement Pumps

Presenter: *Ilya Grinberg*

In the oil industry, one of the most important consumers of electric energy is a drive system of sucker-rod displacement pumps of oil wells. These drives consume up to 40 percent of the electric energy of an oil field. For induction motors (IM) of oil well displacement pumps (DP) drives, periodic overloads and underloads (occurring 12-30 times per minute) are typical. Maximum torques of IM can reach values close to their maximum electromagnetic moment and minimum torques close to their no-load conditions. This specific character of loading for IM of DP has a negative influence on power and energy indices of electric drives and the electric power distribution system (EPDS) of an oil field, and is determined by reduction of efficiency and power factor of IM. Also, energy losses increase and indices of voltage quality worsen. Therefore, development of efficient methods of improvement of power indices of IM for DP drives clearly becomes an important task.

Presenter Index

Anselmi, Lisa Marie, <i>Assistant Professor, Anthropology</i>	1
Ansuini, Catherine, <i>Professor and Chair, Health and Wellness</i>	21,22
Ansuini, Thomas, <i>Lecturer, Health and Wellness</i>	21
Banerjee, Sarbani, <i>Associate Professor, Computer Information Systems</i>	9
Basiliko, Caleb, <i>Fleet Captain, Great Lakes Center</i>	20
Baum, Bruce, <i>Professor, Exceptional Education</i>	18
Bergslien, Elisa, <i>Assistant Professor, Earth Sciences and Science Education</i>	12
Birdd, Don, <i>Professor, Earth Sciences and Science Education</i>	11
Carbonara, Joaquin, <i>Associate Professor, Mathematics</i>	26
Carmosino, Tanya, <i>Senior Research Associate, Center for Health and Social Research</i>	5
Christopher, Sheila, <i>Research Associate, Great Lakes Center</i>	20
Clapsadl, Mark, <i>Research Associate, Great Lakes Center</i>	21
Coffey, Dermot, <i>Associate Professor, Physics</i>	25
Colca, Louis, <i>Associate Professor, Social Work</i>	28
Colley, Ann, <i>Professor, English</i>	15
Conorozzo, Angelo, <i>Associate Director, Center for Development of Human Services</i>	32
Contrino, Kathleen, <i>Lecturer, Criminal Justice</i>	31
Delmerico, Alan, <i>Research Analyst, Center for Health and Social Research</i>	3
Delprino, Robert, <i>Associate Professor, Psychology</i>	27
DeMarco, Michael, <i>Professor and Chair, Physics</i>	25
Deutschman, Marian, <i>Interim Director, College and Community Partnerships</i>	7
Dray, Barbara, <i>Assistant Professor, Exceptional Education</i>	18
Durfee, William, <i>Associate Professor, Chemistry</i>	6
Ebert, Gregory, <i>Professor, Chemistry</i>	7
Ettestad, David, <i>Associate Professor, Physics</i>	26
Falconer, Kathleen, <i>Lecturer, Elementary Education and Reading</i>	15
Fish, Lydia, <i>Professor, Anthropology</i>	28
Fowler, Trina, <i>Undergraduate, Social Work</i>	28
Fox, Bruce, <i>Photographer, Instructional Resources</i>	23
Fraser, Gordon, <i>Director, Great Lakes Center</i>	20
Freidhoff, John, <i>Captain and Field Station Manager, Great Lakes Center</i>	20
Frezza, Christine, <i>Graduate Student, Student Personnel Administration</i>	31
Frick, Michael, <i>Caretta Research Project, Savannah, GA</i>	2
Gallineau, Timothy, <i>Associate Professor, Student Personnel Administration</i>	32

Ghosh, Chaitali, <i>Assistant Professor, Mathematics</i>	24
Giangreco, Ken, <i>Multimedia Production Specialist, Instructional Resources</i>	23
Gong, Huili, <i>Professor, Capital Normal University, Beijing, China</i>	18
Goodman, Scott, <i>Associate Professor, Chemistry</i>	5
Grabiner, Virginia, <i>Associate Professor and Chair, Sociology</i>	31
Graves, Bryan, <i>Undergraduate, Physics</i>	25
Green, Satasha, <i>Assistant Professor, Exceptional Education</i>	17
Grinberg, Ilya, <i>Professor, Technology</i>	33
Harmon, Griffin, <i>Undergraduate, Physics</i>	25
Haq, Faizan, <i>Lecturer, Communication</i>	8,32
Hayes, Donna, <i>Assistant Professor, Dietetics and Nutrition</i>	9
Hayes, Kevin, <i>Research Assistant, School of Natural and Social Sciences</i>	28
Hennessy, Dwight, <i>Associate Professor, Psychology</i>	26
Herdlein, Richard, <i>Associate Professor, Student Personnel Administration</i>	31
Hodge, Amitra, <i>Associate Professor, Sociology</i>	9,30
Howe, Frederick, <i>Professor, Educational Foundations</i>	12
Hura, Gerri, <i>Assistant Professor, Educational Foundations/Adult Education</i>	13
Iannacone, Carmen, <i>Professor Emeritus, Exceptional Education</i>	32
Irvine, Kim, <i>Professor and Chair, Geography and Planning</i>	19
Johnson, Michael, <i>Associate Professor and Chair, Modern and Classical Languages</i>	25
Kim, Jamie, <i>Assistant Professor, Chemistry</i>	6
Kumar, Subodh, <i>Interim Research Director, Environmental Toxicology and Chemistry, Great Lakes Center</i>	16
Lin, William, <i>Associate Professor, Computer Information Systems</i>	8
Lindner, Jon, <i>Graduate Student, Health and Wellness</i>	21
MacIsaac, Dan, <i>Associate Professor, Physics</i>	15
Mahler, Ronnie, <i>Associate Professor, Social Work</i>	29
Marczynski, Kelly, <i>Assistant Director and Senior Research Scientist, Center for Health and Social Research</i>	4,5
McCorry, Timothy, <i>Assistant Professor, Sociology</i>	31
Miller, Neil, <i>Undergraduate, Physics</i>	25
Mix, Wende, <i>Associate Professor, Geography and Planning</i>	19
Muha, Marianne, <i>Sr. Assistant Librarian, E. H. Butler Library</i>	14
Mukherjee, Jagat, <i>Research Scientist, Environmental Toxicology and Chemistry, Great Lakes Center</i>	16
Nazarenko, Alexander, <i>Associate Professor, Chemistry</i>	7
Nicholls, Andrew, <i>Associate Professor, History and Social Studies Education</i>	23
Nochajski, Thomas, <i>Senior Research Scientist, Center for Health and Social Research</i>	5
Norvilitis, Jill, <i>Associate Professor, Psychology</i>	27
Oh, Suk, <i>Professor and Chair, Dietetics and Nutrition</i>	10

O'Quin, Karen, <i>Professor and Associate Dean, School of Natural and Social Sciences</i>	28
Pacheco, Maria, <i>Associate Professor, Chemistry</i>	6
Paterson, Wendy, <i>Associate Professor and Chair, Elementary Education and Reading</i>	14
Pawlowski, Roberta, <i>Senior Research Specialist, Center for Health and Social Research</i>	5
Pennuto, Christopher, <i>Associate Professor, Biology and Great Lakes Center</i>	2
Pereira, Meghan, <i>Electronic Learning Specialist, Instructional Resources</i>	23
Perez-Fuentetaja, Alicia, <i>Associate Professor, Biology</i>	21
Rao, Tejaswini, <i>Associate Professor, Dietetics and Nutrition</i>	9
Reid, Howard, <i>Professor, Psychology</i>	27,28
Renzi, Deborah, <i>Field Studies Director, Social Work</i>	29
Riess, Albert, <i>Librarian, E. H. Butler Librar</i>	13
Schmidt, Raquel, <i>Assistant Professor, Exceptional Education</i>	17
Schuetze, Pamela, <i>Associate Professor, Psychology</i>	27
Singer, Jill, <i>Professor, Earth Sciences and Science Education and Director, Office of Undergraduate Research</i>	10,11
Skutnik, Robert, <i>Program Coordinator, Center for Health and Social Research</i>	5
Slawinska, Wanda, <i>Curator of the Fronczak Room Collections, E. H. Butler Library</i>	13
Smith, Paul, <i>Television Production Specialist, Instructional Resources</i>	23
Snyder, Randal, <i>Associate Professor and Chair, Biology</i>	3
Standora, Edward, <i>Associate Professor, Biology</i>	2
Tang, Tao, <i>Associate Professor, Geography and Planning</i>	18,19
Tetewsky, Sheldon, <i>Senior Research Analyst, Center for Health and Social Research</i>	3,4
Thompson, Phyllis, <i>Assistant Professor, Art Education</i>	1
Townsend, Carol, <i>Associate Professor and Chair, Design</i>	9
Vermette, Stephen, <i>Associate Professor, Geography and Planning</i>	19
Waite, Kaylene, <i>Computer Graphics Specialist, Instructional Resources</i>	23
Weekly, Nancy, <i>Head of Collections and the Charles Cary Rumsey Curator, Burchfield-Penney Art Center</i>	3
Wieczorek, William, <i>Director and Professor, Center for Health and Social Research</i>	3,4,5
Williams, Kevin, <i>Assistant Professor, Earth Sciences and Science Education</i>	11
Williams, Kristina, <i>Director, Caretta Research Project, Savannah, GA</i>	2
Zhao, Wenji, <i>Associate Professor, Capital Normal University, Beijing, China</i>	18
Zhang, Jie, <i>Professor, Sociology</i>	30



th Annual

FACULTY/STAFF Research and Creativity Fall Forum

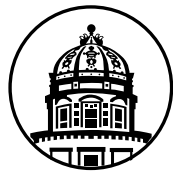


Buffalo State
State University of New York

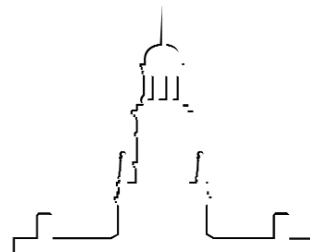
7

th Annual

FACULTY/STAFF
Research and Creativity Fall Forum



THE RESEARCH FOUNDATION
The State University of New York



Buffalo State[™]
State University of New York

SPONSORED BY
Academic Affairs Office
Research and Creativity Council

FUNDED BY
The Research Foundation of SUNY at Buffalo State College

GRAPHIC DESIGN & PRINTING SERVICES BY



(716) 332-4369