

SYMPOSIUM XXII 1996 college of Arts and sciences



EASTERN MICHIGAN UNIVERSITY

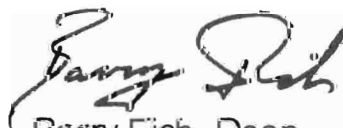
DEAN'S WELCOME

Welcome to Symposium XVI — a distinctive event sponsored by the College of Arts and Sciences to celebrate excellence in undergraduate creativity and research. For sixteen consecutive years, the Symposium has enabled students to exhibit their creativity and scholarship in an “extended classroom” setting and has encouraged faculty to work with those students as advisors and mentors. By so doing, the Symposium vividly exemplifies the highest ideals of the university experience.

From modest beginnings within our college, the Symposium in recent years has expanded to include students from throughout the University. I am, therefore, pleased to welcome students, faculty, sponsors and guests, not only from the College of Arts and Sciences, but from EMU’s other colleges to today’s events and activities.

The efforts of many persons make the Symposium possible. Special thanks go to members of the Symposium Planning Committee and its long-term coordinator, Dennis Beagen, for their imagination and resourcefulness in preparing the year’s program. I take special pleasure in welcoming our distinguished keynote speaker and EMU alum, Rodney E. Slater, and look forward with you to learning from him. Hearty congratulations are due to the students who are presenting their outstanding achievements today and to numerous faculty and family members, sponsors and guests, for essential and invaluable support. I hope you enjoy this year’s Symposium and welcome you to celebrate excellence with us.

Cordially,



Barry Fish, Dean
College of Arts and Sciences

SCHEDULE OF EVENTS

Welcome/Continental Breakfast

McKenny Union
Guild Hall - 2nd Floor

Good morning!

Session A Student Presentations

McKenny Union
1st and 2nd Floor Rooms

8:30 a.m. - 9:45 a.m.

Poster Presentations

Guild Hall
2nd Floor

9:00 a.m. - 12:30 p.m.

Session B Student Presentations

McKenny Union
1st and 2nd Floor Rooms

10:00 a.m. - 11:15 a.m.

Session C Student Presentations

McKenny Union
1st and 2nd Floor Rooms

11:30 a.m. - 12:45 p.m.

Symposium Luncheon

McKenny Union Ballroom

CAS Alumni Recognition Awards
Speaker: Rodney E. Slater, Administrator
Federal Highway Administration
EMU Alumnus, 1977

1:00 p.m. - 2:30 p.m.

Friday, March 29, 1996

Thank You

The College of Arts & Sciences and the Symposium XVI Planning Committee extend sincere appreciation to the many offices and individuals who provide essential assistance to enhance the success of this event. Special recognition is due to:

Susan Anderson, Honors Program
Susan Bairley and Pat Mroczek, Public Information
Barbara Ebeling and students of CTAC 307, Teaching of Speech
Susan Gardner and the staff of McKenny Union
Dave Gore, College of Technology, Interdisciplinary Technology
Viki Gotts, College of Technology
Lolita Hendrix and students of JRNL 408, Case Studies in Public Relations
Susan LaPorte and students of FA 348, Logos and Symbols
Pam Moore, Computer Science
Pat Wray, Parking

Symposium XVI is primarily funded by the Provost's Office, Division of Academic Affairs with additional support from Ned's Bookstore, the Graduate School and the Honors Program.

Poster Presentation Abstracts

COLLEGE OF ARTS AND SCIENCES

Department of Art

TINA MARIA — Professor Fredrick Hunter, Sponsor

Patination of Copper Alloys for Metalworking. The patination process involves a surface reaction of copper containing metals with varying chemical "recipes". The methods of application for these recipes are: 1. Boiling immersion method 2. Burial method 3. Vapor method 4. Direct application method. The results of the different recipes combined with the different methods of application produce surface colors with varying visual and physical characteristics. This research presentation will illustrate the expansive color possibilities that may be attained in metalworking.

Department of Biology

PATRICIA A. ELYA — Professor Teresa M. Morton, Sponsor

Selection for Antibiotic Resistance Gene Exchange in *Staphylococcus aureus*. Antibiotic resistant isolates of *Staphylococcus aureus* are frequently isolated from hospitalized patients and health care personnel. Traditionally, *S. aureus* isolates from patients are resistant to the antibiotic gentamicin. Recently, however, isolates have become resistant to mupirocin, a topical agent used to treat *S. aureus* infections. By selecting for gentamicin resistance in mupirocin resistant strains, and conversely, mupirocin resistance in gentamicin resistant strains, a mechanism for antibiotic resistance gene exchange in *S. aureus* has been identified.

DAVIDA JOHNSON — Professor James VandenBosch, Sponsor

The Novel Phase Variant Phenotype, *hgr*, high growth, of *Streptococcus gordonii*. *S. gordonii*, a bacterium of the human mouth and cause of endocarditis, undergoes phenotypic phase variation. The effect of known phenotypic variations on survival in human and guinea pig serum was determined. Although none of the previously described phenotypes affect survival in serum, a new high growth rate phenotype, *hgr*, was observed in both serum and nutrient broth. Additionally, all strains grew at a lower rate in guinea pig than human serum.

ANTHONY LIPPS — Professor Allen Kurta, Sponsor

Tippy Dam: A Unique Bat Hibernaculum. Although bats usually hibernate in a mine or cave, such structures do not occur in lower Michigan, and biologists formerly believed that all bats migrated elsewhere for the winter. However, a colony of 22,000 bats was found hibernating in a hydroelectric dam in Manistee County. This study examines the species composition of that colony and its annual population buildup and decline. Daily and seasonal changes in temperature and humidity also were monitored, using miniature data loggers and a laptop computer, in order to make comparisons with more natural hibernacula.

TERRI A. LOGUE — Professor Teresa M. Morton, Sponsor

Amplification of Target DNA by the Polymerase Chain Reaction for DNA Sequence Determination. Recent evidence suggests that the DNA sequence immediately upstream of antibiotic resistance genes may determine antibiotic resistance levels in medically important bacteria. To determine if differences in mupirocin resistance levels in *Staphylococcus aureus* correspond to differences in this DNA sequence, DNA from high- and low-level mupirocin resistant strains were amplified by the Polymerase

Chain Reaction (PCR). The results from the PCR will allow sequence determination of target DNA using non-isotopic Silver Sequencing.

ANNMARIE OLES and LORI BARNES — Professor Jamin Eisenbach, Sponsor

Are Some Presumptive Plant Genetic Markers Due to Bacteria Associated with Plant Leaves? Random Amplified Polymorphic DNA (RAPD) is a commonly used technique for generating molecular genetic markers. We have demonstrated that bacteria can persist on cattail, *Typha* spp., leaf tissue even after long-term storage at -70°C. As a result, amplified plant DNA previously thought to be pure could also contain bacterial DNA. This contamination may produce molecular markers that can lead to inaccurate conclusions and raise questions about how robust the findings from RAPD studies may be.

ALEXANDER T. PARKER — Professor Teresa M. Morton, Sponsor

Addition of a Staphylococcal Origin of Replication, pSK265, to *Escherichia coli* Plasmids for Movement into *Staphylococcus aureus*. Bacterial genes are frequently initially cloned in *Escherichia coli* due to ease of genetic manipulation. In order to study gene function, six plasmids generated in *E. coli* containing *Staphylococcus aureus* DNA, were moved into *S. aureus*. To accomplish this, a region of DNA containing a staphylococcal origin of replication, pSK265, was added to these plasmids and they were electroporated into *S. aureus*. These results will allow for future studies on gene function in *S. aureus*.

DON QUADA — Professor Robert Neely, Sponsor

The Effect of Sedimentation on Carbon and Phosphorus Concentrations in Wetland Surface Water. The purpose of this study is to examine the effect of sediment deposition on aspects of nutrient chemistry in wetland surface water. In this study, the effect of sedimentation on dissolved and particulate concentrations of carbon and phosphorus were examined in the laboratory. Preliminary results indicate that although sediment loading unquestionably contributes to nutrient loads in wetlands, suspended sediment particles can scavenge nutrients from surface waters and thereby reduce nutrient concentrations. For example, application of sediment thus far seems to reduce phosphorus concentrations by approximately fifty percent.

Department of Chemistry

DONALD BIESKE — Professor Jose Vites, Sponsor

Stoichiometric and Spectroscopic Considerations in the Boron Mediated Synthesis of Tri-Iron Carbonyl Cluster Compounds. An overview of our current research efforts on understanding the reactivity of $\text{BH}_3\text{-THF}$ with an anionic organometallic iron carbonyl compound will be given. The reaction of $\text{Fe}(\text{CO})_4\text{C}(\text{O})\text{C}_6\text{H}_5^-$ with $\text{BH}_3\text{-THF}$ has been found to produce the tri-iron cluster $\text{Fe}_3(\text{CO})_9((\mu_3\text{-CO})\text{C}(\text{O})\text{-C}_6\text{H}_5)_2$. We are currently studying the products of a related reaction in which the anionic organometallic carbonyl compound was prepared through an alternate pathway using elemental sodium and iron pentacarbonyl as the starting materials.

ERMELINDA HARPER and OTIS VACRATISIS — Professor Michael J. Brabec, Sponsor

Estimation of HSP27 mRNA in Cell Cultures Exposed to Reproductive Toxins. A fragment of DNA, constructed with primer

binding sites identical to heat shock protein 27, was inserted into a pSP64 plasmid. The plasmid was isolated from transfected cultures and transcribed with SP6 RNA polymerase. The RNA product, homologous to HSP27 mRNA, was isolated and used as a standard in RT/PCR to estimate the amount of HSP27 mRNA in rat lung epithelial cell cultures exposed to heat and reproductive toxins.

H. STEPHEN LEE — Professor Donald M. Snyder, Sponsor
Preparation of a Difunctional Nitrogen-Stabilized Fischer Carbene Complex for Photochemical Studies. The Fischer metal-carbene complex 1-methoxyethylidene pentacarbonylchromium was prepared by reaction of hexacarbonylchromium with methyl lithium and alkylation with trimethyloxonium tetrafluoroborate. The oxygen-stabilized Fischer carbene complex was then reacted in a 2:1 mole ratio with 1,6-hexamethylene diamine under varying conditions in order to prepare a difunctional derivative via amine displacement of the methoxy groups.

ELEANOR MARKS and BENJAMIN S. WILENKIN — Professor Deborah Heyl-Clegg, Sponsor
Substitution at the Para-Position of Phenylalanine in a Nonselective Deltorphin Analog. [Gly⁴]Deltorphin I (Tyr-D-Ala-Phe-Gly-Val-Val-NH₂) is a nonselective analgesic peptide which binds tightly to both delta and mu opiate receptors. Substitutions were made on the Phe³ side chain to explore structure-activity relationships which are crucial to receptor preference and binding. These modifications varied side chain size, electronic character and/or polarity. Lipophilicity-increasing modifications generally enhance binding whereas hydrophilic and bulky modifications are detrimental. This knowledge may lead to an opiate-like painkiller without deleterious side effects.

ROBERT OSTROSKI and STEPHEN WOJDYLA — Professor Ronald M. Scott, Sponsor
Short Range Solvation of the Pentachlorophenol-Triethylamine Proton Transfer Complex by Alcohols. Short range solvation is the direct interaction by hydrogen bonds of solute and solvent molecules. Such interactions influence the reactivity of chemicals. We report the stoichiometry and binding constants of alcohols as solvents with mixtures of pentachlorophenol and triethylamine, noting the effects this hydrogen bonding has on the formation of a proton transfer complex between these reacting species. Comparisons are made with alcohols previously studied.

Department of Communication and Theatre Arts

SCOTT ANDERSON — Professor John Cooper, Sponsor
The Importance of Telecommunication Mergers. Telecommunication industry mergers are becoming larger in scope and appear to be happening more and more. This study examines advantages and disadvantages of increased concentration of ownership of the entertainment providers. The recent "megamergers" have both strident critics and ardent supporters. The study uses a pro-business analysis to examine the costs and benefits of these mergers.

KATHLEEN CROSBY — Professor Katherine Strand-Evans, Sponsor
If The Shoe Fits.... To broaden a personal knowledge of costuming, work was undertaken in the making of shoes, including medieval shoes and shoes made of felt. Work includes both pre-made patterns and patterns of original design.

RICKY ALBERT GREENWELL — Professor Katherine Strand-Evans, Sponsor

Make-up Technique for Film, Television, and Theatre. Make-up is used in theatre, television and films, and many make-up artists work in more than one area. The materials and the equipment used may be the same, but the effects sought and the techniques used sometimes differ. This project attempts to show some of the complexity of make-up techniques and how the final image is achieved.

BOBBIE JO RAU — Professor Katherine Strand-Evans, Sponsor

Theatrical Millinery: The Construction of Headwear for the Theatre. This project examines various types of hats, headdresses, and non-traditional wigs for stage use. Theatrical millinery is a specialized area in costume crafts and can differ greatly from fashion millinery in construction techniques and design.

MARK WHEPLEY — Professor John Cooper, Sponsor
PBS and the Battle for Public Television in America. This study examines the social and practical costs of a public broadcasting system under corporate ownership. It recounts the past and present of the Public Broadcasting System, then lists the options that some have suggested would save PBS from fatal financial difficulties. Predictions are then made regarding what could, and should, happen to PBS based on a socio-political analysis grounded in public interest.

Department of History & Philosophy

MARK STUCKY — Professor Ronald Delph, Sponsor
The Mail Armor of Medieval Europe. In this project I created samples of mail armor used throughout Medieval Europe. These pieces illustrate the progression from chain mail, the dominant armor from 1180 AD -1325 AD, to its gradual replacement by plate armor. I have attempted to emulate fabrication methods of the period in order to achieve more authentic results and to better understand these processes.

Department of Mathematics

ROBIN BLAIR and SANDRA PALAZZOLO — Professor Donald Buckeye, Sponsor

How are Math Manipulatives Used in the Elementary Classroom? This project attempts to show how elementary classrooms are using different ways of teaching math concepts. One way is using math manipulatives. These manipulatives are used to give the students some hands-on training on how to learn math at different grade levels. This project will also attempt to give the opinions of different teachers and how they feel math manipulatives benefit students in the elementary schools.

Department of Physics and Astronomy

STEPHEN JOHNSON — Professor David D. Reid, Sponsor
The Meaning of Uniform Acceleration in Special Relativity. This project explores the features of uniformly accelerated motion in special relativity. Upon comparison with the non-relativistic case, this project then considers the conceptual meaning and value of acceleration as a kinematic quantity in special relativity.

Department of Psychology

NICOLE JAMES — Professor Elliott Bonem, Sponsor
Context on Sexual Harassment: Ratings by College Students.

This study was conducted to see if there are differences between gender and age and views on sexual harassment. A survey with demographic questions, scenarios to rank, and personal experience questions was given to 42 college students. The results showed there is no significant difference between age or gender and views on sexual harassment. I concluded views do differ since no one received the same survey score; however, age and gender did not appear to explain why.

LAURA MALOSH — Professor Jeffrey Dansky, Sponsor
Do African American Children Continue To Be Underrepresented in Psychologists' Research? All empirical reports published in two major developmental journals from 1992 through 1994 were content analyzed. The percentage of articles including African American children as participants, as well as the methodological rigor of those articles, has increased in recent years. However, until scholars agree on precise and uniform criteria for counting positive instances, it will remain difficult to make precise statements about the extent to which minority children are represented in particular literatures.

CRAIG NOONAN — Professor John McManus, Sponsor
Sleep-Deprivation Questionnaire: How Much Is Too Much? An overview of research during the past century summarizing sleep deprivation and its common effects is presented. Based on research findings, a questionnaire for use with college students is being developed and will be illustrated, focusing on stress/anxiety associated with student sleep loss. Proposals for future sleep deprivation research are portrayed.

TINA RYBAK — Professor Elliott Bonem, Sponsor
Pupil Diameter and Its Response to Auditory Stimuli. Pupil diameter may be influenced by emotion. Changes in pupil size were studied by measuring them during controlled and experimental conditions. It was tested to see if auditory stimuli could be an influence on pupil diameter. This was done by presenting subjects with different aural stimuli which were ranged on a scale of emotional content. Significant changes of the pupil were found in two of the five experimental conditions.

CHRISTINE WURM — Professor Silvia vonKluge, Sponsor
Hamsters, Booze, and Exercise. Eighteen male hamsters were given a choice between water and alcohol for 20 days. Half of the hamsters were given a running wheel. Consumption of alcohol increased from 10% on Day 1 to over 90% on Day 20. The animals with a wheel drank less alcohol than those without a wheel.

COLLEGE OF EDUCATION

Department of Health, Physical Education, Recreation and Dance

JOHN MCAULIFFE — Professor Michael H. Jones, Sponsor
Innovations in Health Promotion Videos. Most health promotion videos like Nordic Track use traditional production techniques

(actors, sets, and scripts); however, some new, popular TV shows like "COPS" use "real" production techniques (actual people, and events). In this presentation, the "real" production technique has been used to produce a video to promote the Ford Athletic Swim and Triathlon Club (FAST) with Ford employees racing and training.

COLLEGE OF HEALTH AND HUMAN SERVICES

Department of Associated Health Professions

JOY LYNN CLOUSE — Professor Sandra L. Drake, Sponsor
Fatigue and the College Student. Many students are seen at the University Health Center with complaints of fatigue. Fatigue can be caused by such things as mononucleosis, anemia, and thyroid disorders, as well as stress students experience from their classes and work. A study of students with complaints of fatigue, along with laboratory tests, and students' stress levels can help determine whether or not stress has a detrimental effect on thyroid levels and/or the body's potential to combat viruses that lower the body's immune function.

COLLEGE OF TECHNOLOGY

Department of Industrial Technology

FRED W. HAYDON — Professors Pamela Speelman and Diane Jacobs - Department of Physics and Astronomy, Sponsors

Astronomical Images and the World Wide Web: New Explorations for the Amateur Astronomer. This project combines two recent technological advances, the Hubble Space Telescope and the World Wide Web. Until 1990, Amateur Astronomers had to rely on their own Earth-based observations and published findings from Earth-based observatories. With the launching of the Hubble Space Telescope, new images are being discovered almost daily. The recent expansion of the World Wide Web allows the Amateur Astronomer, easy and timely viewing access to these images. These images can be downloaded for integration into a PC presentation.

Department of Interdisciplinary Technology

JONATHAN ISRAEL — Professor David Gore, Sponsor
The Development of the Martin Luther King, Jr. Materials. A presentation of the development of the 1996 Martin Luther King, Jr. materials used in the campus wide Celebration at Eastern Michigan University. This project provides a visual representation of the process from which the poster and other Martin Luther King, Jr. materials were contrived. It will demonstrate the King '96 materials from the basic layout to the final pieces.

Session A

8:30 a.m. - 9:45 a.m.

Alumni Room, 2nd Floor
Moderator: Norbert Vance

Department of Chemistry:

WANNEE ASAVAROENGCHAI — Professor Michael J. Brabec, Sponsor
Cell Survival Rates After Cadmium Treatment Increases With Heat Shock
THOM KLEPACH — Professor Masanobu Yamauchi, Sponsor
Coordination Chemistry of 1-Methyl 1,2,3-Triazole 4-Carboxylic Acid

Department of Computer Science:

DAVID BARNETT — Professor H. Höft, Sponsor
Bouncing Ball - Computational Analysis and Graphical Implementation
ROBERT DUDDLES — Professor Zenia Jones, Sponsor
Setup and Operation of a Macintosh Web Server

Department of Physics and Astronomy:

JEFFREY MICHAEL WILSON — Professor Norbert Vance, Sponsor
1.2 GHz Radio Telescope

Faculty Lounge, 2nd Floor
Moderator: Ira Wasserman

Department of English Language and Literature:

MOIRA M. KINDIG — Professor James Angle, Sponsor
The Many Faces of Delaney Rose
PATRICIA LLOYD — Professor William Hauer, Sponsor
Comparison of Tragic Endings of *Billy Budd* and *Othello*

Department of History and Philosophy:

MARK CHRISTENSEN — Professor Michael Reed, Sponsor
Investigating "Style Talk"
ANDREW SOIFER — Professor Michael Carlsen-Jones, Sponsor
Socrates and Bill Wilson

Department of Sociology, Anthropology, and Criminology:

ANNA COLLIER — Professor Karen Brown-Ehrlich, Sponsor
The Silent Voice: An Analysis of the Social Functions of Graffiti at Eastern Michigan University

Salon, 2nd Floor
Moderator: Marilyn Saker

Department of Foreign Languages and Bilingual Studies:

IRENE JULIA (IRINA) KNOKH — Professor J. Sanford Dugan, Sponsor
Edith Piaf — The Other France

Department of Music:

SUSAN BICKNER, Soprano, LOIS KAARRE, Piano — Professor Glenda Kirkland, Sponsor
"Songs of The Auvergne" by Joseph Canteloube (Series 3)
MATTHEW MANKOFF, Alto Saxophone, LOIS KAARRE, Piano — Professor Timothy Miller, Sponsor
Concertino Da Camera - mvt. II Larghetto, Animato molto - by Jacques Ibert
JOHN SANCHEZ — Professor Nelson Amos, Sponsor
Hommage 'a Tarrega. Opus 69 by Joaquin Turina (I. Garrocin, II. Soleares)
ZHIHUA TANG — Professor Dady Mehta, Sponsor
Chopin: Scherzo No. 4 op. 54

Department of Health, Physical Education, Recreation and Dance:

AMBER CLARK — Professor Suzanne Zelnik, Sponsor
Lindy Rock and Aquarian Night
WENDY LONGMIRE-DAVIS — Dance Program, Professor Joann McNamara, Sponsor
Southern Lullaby

Tower Room, 2nd Floor
Moderator: Allen Kurta

Department of Biology:

JOSEPH CARYL — Professor Allen Kurta, Sponsor
Ecology of Indiana Bats (*Myotis sodalis*) along the Raisin River
CAROL LANDRY — Professor Gary Hannan, Sponsor
Genetic Variation Within and Between Populations of *Iris lacustris*, a Threatened Great Lakes Endemic

Department of Geography and Geology:

LESA A. BAGBY — Professor M. Kasenow, Sponsor
Aquifer Tests: Conventional Methods
DEANA GUERRERO — Professor M. Kasenow, Sponsor
Aquifer Tests: A New Approach
BENJAMIN R. BLACK — Professor M. Kasenow, Sponsor
Boundary Conditions: Utilizing the Z(μ) Solution

Gallery I, 1st Floor

Moderator: James Robinson

Department of African American Studies:

HYUN-SUN PARK — Professor Clovis E. Semmes, Sponsor

Korean and African-American Relations: Creating Cross-Cultural Understanding

Department of Communication and Theatre Arts:

JAMIE BORER — Professor James Robinson, Sponsor

Interracial Living: Is It Accepted Among Whites?

TRACY MICHELLE ELZY — Professor James Robinson, Sponsor

The Effect of Stereotyping on Interracial Communication

ANTONIO A. HARLAN — Professor Gary Evans, Sponsor

Communication, Conflict, and Relationship Enhancement

STEPHEN WHITLOW — Professor James Robinson, Sponsor

The Perpetuation and Rejection of Oppression by White Culture

Gallery II, 1st Floor

Moderator: Bernard J. O'Connor

Department of Economics:

MATTHEW ROLF — Professor Abdullah A. Dewan, Sponsor

What Makes a Bank Efficient? An Analysis of Banks' Financial Characteristics and Management

Department of History and Philosophy:

NICOLE CROCKETT, DARRELL DIUGUID, JOHN GATES, ALLEN KOBLER, and

JUDY REYNOLDS — Professor Daryl Hafter, Sponsor

Technology in Today's World: How Does Technology in the 90's Change Work and Workers?

Department of Political Science:

LOUANN POWELL — Professor Rhonda Kinney, Sponsor

Women and Women's Issues in American Politics

SCOTT RECTOR — Professor Bernard J. O'Connor, Sponsor

Executive Orders and the Legislative Process

ROBERT STEARNS — Professor Bernard J. O'Connor, Sponsor

Guilty Until Proven Innocent: Presumption of Constitutionality v. Personal Rights

Intermedia Gallery, 1st Floor

Moderator: Kathleen Stacey

Department of Communication and Theatre Arts:

TRICIA JENTZ and REBECCA KENNERLY — Professor Kathleen Stacey, Sponsor

University Health Services Educational Programs: Students' Awareness

Department of Foreign Languages and Bilingual Studies:

STACIA BANNAN — Professor E. Catherine Day, Sponsor

The Education of Linguistic Minorities in Luxembourg, Germany, and Other European Contexts

Department of Mathematics:

AMY UPHMAN, BRYAN JOHNSON, and MARY HEAVNER — Professor Joanne Caniglia, Sponsor

Young Children's Misconceptions of Prenumber Concepts

MARCH WELLS III — Professor Donald Buckeye, Sponsor

Review and Comparison of Elementary Mathematics Pilot Program to Current Program in the Ann Arbor District

Department of Health, Physical Education, Recreation and Dance:

RYAN JAMES ANDERSON and CHRIS H. HUMMEL — Professor Marisa A. Miller, Sponsor

Emergency Plan of Action for Athletic Professionals

KRISTEN REBELEIN — Professor Marisa A. Miller, Sponsor

Concussions in Sport and Daily Activities

Main Lounge, 1st Floor

Moderator: John McManus

Department of Geography and Geology:

SHARON MARIE HOUSTON — Professor C. Ojala, Sponsor

Michigan Ice Jams

Department of Psychology:

JAMES SCHUTTE — Professor John McManus, Sponsor

Healing Models - Old and New

MARK SHEELY — Professor John McManus, Sponsor

Traffic Laws: Encouraging Us to Break Them

Department of Special Education:

SHELLY NEWMAN — Professor M. Lake, Sponsor

Parental Awareness of Resources for Their Children with Special Needs

LYDIA TACKETT — Professor Sandra McClennen, Sponsor

Uses of Play in Early Childhood Special Education

Session B

10:00 a.m. - 11:15 a.m.

Alumni Room, 2nd Floor
Moderator: *Gerald Lawver*

Department of Art:

DAVID GLEDHILL — Professor Richard Fairfield, Sponsor
High Relief Printmaking

Department of Mathematics:

JENNIFER DROELLE — Professor Carla Tayeh, Sponsor
Assessing Problem Solving Ability Through Student Writings

Department of Interdisciplinary Technology:

RYAN SMITH — Professor Timothy Doyle, Sponsor
Creation of Aviation Alumni Association

NATHAN STUTLER — Professor Taki Anagnostou, Sponsor
Prohesion Study: The Corrosion Differences of Five Different Metals

SCOTT C. TALLMADGE — Professor Gerald Lawver, Sponsor
Developing Visually Dynamic Emergency Plans for Public Safety Agencies

Faculty Lounge, 2nd Floor
Moderator: *David Geherin*

Department of English Language and Literature:

ANGELA D. HERTLE — Professor Ian Wojcik-Andrews, Sponsor
Savage Product of the Societal Imagination: A Comparative Study of *Peter Pan* and *Lord of the Flies*

KENNETH J. KARGES — Professor David Geherin, Sponsor
In the Coliseum: Gladiatorial Games and Their Context

TARA K. MOFFETT — Professor Harry Eiss, Sponsor
Jungian Concepts in Tolkien's *The Hobbit*

Department of History and Philosophy:

KENNETH J. KARGES — Professor Thomas Franks, Sponsor
Kierkegaard's Knight of Faith: An Overman in Christian Clothing

Department of Psychology:

H. KALYNA KUNZE — Professor Dennis J. Delprato, Sponsor
Development of a Scale to Measure Human Service Clinicians' Attitudes Toward Graphing Client Data

Reception Room, 2nd Floor
Moderator: *Sharon Erenburg*

Department of Economics:

VALERIE OBEE — Professor Sharon Erenburg, Sponsor
The Economic Effects of German Reunification

KENDRA SMITH — Professor Sharon Erenburg, Sponsor
Implications of the Classical Model for Future Economic Policy

Department of Political Science:

WILLIAM PORTER — Professor Bernard J. O'Connor, Sponsor
C.A.F.E. and the American Love Affair

Department of Finance and Computer Information Systems:

MARCEL NEFF — Professor Nesa Wu, Sponsor
An Approach to Resort Maintenance Management

Department of Marketing:

BENJAMIN ANDERSON — Professor Roger Peterson, Sponsor
The Japanese Distribution System

Tower Room, 2nd Floor
Moderator: *Michael Brabec*

Department of Art:

BETH OGDEN — Professor Julie Myers, Sponsor
Richard Long: Walking the Primitive into the Present

JOHN GLEN POST — Professor Igor Baginin, Sponsor
My American Pantheon

Department of Chemistry:

H. STEPHEN LEE — Professor Michael J. Brabec, Sponsor
In Vitro Introduction of HSP27 mRNA by Benomyl

CARRIE LEONARD — Professor Stephen Brewer, Sponsor
Rapid Headspace Analysis of Soils for Volatile Organic Compounds by Fast Gas Chromatography

Department of Foreign Languages and Bilingual Studies:

JASON FRANK — Professor Geneviève Peden, Sponsor
A Divided France: 1940-1942

Gallery I, 1st Floor

Moderator: Chris Wood Foreman

Department of Communication and Theatre Arts:

MICHAEL G. MILLIMAN — Professor Chris Wood Foreman, Sponsor

Twisting Pursuit: Educating Peers about Campus Life and Health Issues

Department of English Language and Literature:

JENNIFER LORENZ — Professor Bill Tucker, Sponsor

Literature versus Basal

Department of History and Philosophy:

DANIEL PRICE — Professor Margaret Crouch, Sponsor

Parental Involvement in Education: Raising Achievement Levels

Department of Psychology:

COLLEEN ANDERSON — Professor John McManus, Sponsor

Teen Fathers: Incidence, Factors of Influence, and Suggested Interventions

Department of Associated Health Professions:

ALLISON JUDE STACHAK — Professor Judith Olson, Sponsor

Kangaroo Care as an Option for the Occupational Therapist Working in the Newborn Intensive Care Unit

Gallery II, 1st Floor

Moderator: Thomas Gwaltney

Department of Teacher Education:

STACY M. AVERITT — Professor Thomas Gwaltney, Sponsor

How to Survive Student Teaching

SHERRILL D. CACHIA — Professor Elizabeth Johnson, Sponsor

Teaching the Concept of Community and Bringing Cultural Awareness Through Your Neighborhood Supermarket

SUSAN LAURA NISCH — Professor Elizabeth Johnson, Sponsor

Coming to America... Are We Welcome?

LELA R. STECH — Professor Elizabeth Johnson, Sponsor

Grandparents: A Multicultural Plan

LINDA WILLMAN — Professor Thomas Gwaltney, Sponsor

Interdisciplinary Teaching in the Middle Schools

Intermedia Gallery, 1st Floor

Moderator: Michael Harris

Department of Mathematics:

GAIL FURBACHER and GINA MARTINI — Professor David C. Johnson, Sponsor

A Glimpse into the Math Related Careers of Selected Females in Southeastern Michigan

HOOKKI JACKSON, STACEY ROKICSAK, and JOHN TAVERNIER — Professor Joanne Caniglia, Sponsor

Strategies Children Utilize in Solving Multiplication Problems

BRENT OTTO and PAUL DEEMER — Professor Bette Warren, Sponsor

Calculus Students' Dilemma: Elementary Functions Without Elementary Integrals

Department of Political Science:

GAYTHA MARIE BUTTERS — Professor Michael Harris, Sponsor

The Webster Township Budget

JOHN ENGEL — Professor Michael Harris, Sponsor

Analysis of Budgeting in the City of Saline

Main Lounge, 1st Floor

Moderator: Heather Neff

Department of English Language and Literature:

JAIME DUNLAP — Professor Heather Neff, Sponsor

Jean Toomer as Prophet

JANICE GUICE — Professor Heather Neff, Sponsor

Uniquely a Woman's Struggle

TRISA R. KLIPP — Professor Heather Neff, Sponsor

Bathing of Body and Spirit

G. SAM MCKINNEY — Professor Heather Neff, Sponsor

Silent Letter to Massah

Women's Studies Program:

TY CASSIDY JAMES — Professor Rachel Brett Harley, Sponsor

Chivalry's Origin, Acceptance, and Harmful Manipulation Within Our Culture

Session C

11:30 a.m. - 12:45 p.m.

Alumni Room, 2nd Floor
Moderator: John R. Hubbard

Department of Foreign Languages and Bilingual Studies:
KRISZTINA J. UJVAGI — Professor John R. Hubbard, Sponsor
A Matter of Form: Cultural Differences Reflected in Business Documents
FATIN ZAYED — Professor Alfonso Illingworth-Rico, Sponsor
Some Gender Narratological Implications in Juan Rulfo's *Pedro Páramo*
Department of Psychology:
KAREN UEBERROTH — Professor Elliott Bonem, Sponsor
The Effects of Hands-on Computer Experience
Department of Finance and Computer Information Systems
SUSAN L. JOHNSON — Professor Juan Esteve, Sponsor
Expert Systems: An Assessment of Their Use in Industry
Department of Health, Physical Education, Recreation and Dance
NAOMI WHITE — Professor Jennifer M. Beller, Sponsor
A.R.E.T.E. : Athletes Reaching Excellence Through Ethics

Faculty Lounge, 2nd Floor
Moderator: E. L. Cerroni-Long

Department of English Language and Literature:
KATHRYN M. WRUBEL — Professor Jeffrey Duncan, Sponsor
Sanctuary
Department of History and Philosophy:
MARK CHRISTENSEN — Professor Kate Mehuron, Sponsor
Imagination and The Speculative Mind: Re-Imagining the Aristotelian Account
Department of Sociology, Anthropology, and Criminology:
DIANE FLAHERTY CAMPBELL — Professor E. L. Cerroni-Long, Sponsor
Music and Healing: A Cross-Cultural Analysis
IRENE JULIA (IRINA) KNOKH — Professor Gordon E. Moss, Sponsor
The Influence of History and Philosophy on Sociology
LAURIE FORD WILSON — Professor E. L. Cerroni-Long, Sponsor
Lindow Man: An Iron-Age Body Brings Legends to Life

Reception Room, 2nd Floor
Moderator: Reynaldo Ruiz

Department of Economics:
KELLEY ALTESE — Professor Sharon Erenburg, Sponsor
Polish Economic Reform: Shock Therapy and The Balcerowicz Plan of 1990
BLAIR BORGIA — Professor Sharon Erenburg, Sponsor
Mexico 1996: A Macroeconomic Analysis of a Troubled Economy
Department of Foreign Languages and Bilingual Studies:
JANICE M. HABARTH — Professor Reynaldo Ruiz, Sponsor
Newspapers and Noticias: What Makes the Daily Paper in Mexico and the U.S
ANNE M. MUTO — Professor Anne G. Nerenz, Sponsor
Introducing Culture in the Foreign Language Classroom
Department of Geography and Geology:
LISA SAUL — Professor Norm Tyler, Sponsor
The Cemazar House and Furniture

Tower Room, 2nd Floor
Moderator: Rachel Harley

Department of African American Studies:
LLOYD HOLT III — Professor Victor Ogueji for Okafor, Sponsor
The Threat of Environmental Racism to African Americans
Department of History and Philosophy:
STACI EVANS — Professor Ron Delph, Sponsor
Women in Viking Society
Women's Studies Program:
SHARON A. BRAUN — Professors Rachel Brett Harley and Deborah Herbert, Sponsors
Magazine Advertising: The Possible Violence Resulting from the Objectification of Women
ERIN WARNE — Professors Rachel Brett Harley and Deborah Herbert, Sponsors
The Media and its Influence on Eating Disorders
DAWN FISHER — Professors Rachel Brett Harley and Deborah Herbert, Sponsors
Good Marketing or Sexism? The Portrayal of Women in Fragrance Advertisements in Magazines
Department of Nursing:
THOMAS BERRY, JENNIFER BASTIN, ALFREDA GRAY, AIMEE KNERR, KIMBERLY SMEYERS, CHRISTINE WAGNER, and VINCE ZUELLIG — Professor Linda Berry, Sponsor
Homelessness: A Challenge for Nursing

Gallery I, 1st Floor

Moderator: *Chris Wood Foreman*

Department of Communication and Theatre Arts:

ANTHONY A. SEIVERT — Professor Henry B. Aldridge, Sponsor

Luis Bunuel's Wuthering Heights: A Case Study of Film Adaptation

MAURICE E. STOVALL — Professor Chris Wood Foreman, Sponsor

What's all This Fuss About Communication Skills?!?: A Study of Employers

Department of English Language and Literature:

LAMONT D. ANTIEAU — Professor Phillip Arrington, Sponsor

Making Sense of Interlanguage

Department of Music:

CYNTHIA STEMPL — Professor Louise Patrick, Sponsor

An Introduction to Gregorian Chant

Department of Teacher Education:

JULIE E. BLACK — Professor Thomas Gwaltney, Sponsor

An Analysis of Benefits of Co-Curricular Activities

Gallery II, 1st Floor

Moderator: *Daryl Hafter*

Department of Economics:

CORY BERGEN — Professor John A. Edgren, Sponsor

Use of Western Public Land

THOMAS JANKOWSKI — Professor John A. Edgren, Sponsor

Oil Exploration in the Arctic National Wildlife Refuge: Two Variations on an Economic Theme

Department of History and Philosophy:

MARY-LU STRIMBEL, BETHANY BALL, ANGELA MEADOR and SUE REID — Professor Daryl Hafter, Sponsor

Women's Contributions to History Reveal Unexpected Cultural Richness and Complexity

Department of Political Science:

STEVEN MICHELS — Professor Rhonda Kinney, Sponsor

Freedom of Speech and Political Justice

ANDREW T. STRAHAN — Professors Rhonda Kinney and Bernard J. O'Connor, Sponsors

Newt Gingrich and the Wright Stuff

Intermedia Gallery, 1st Floor

Moderator: *Gary Evans*

Department of Communication and Theatre Arts:

AMY L. CARPENTER — Professor Katherine Strand-Evans, Sponsor

Humpty Dumpty: An Experiment in Nontraditional Theater Costume

LEIGHANNE REDMOND — Professor Gary Evans, Sponsor

Gender Differences in Communication Strategies for Interpersonal Conflict

Department of Music:

MARIE SCHLEPERS — Professor Marilyn Saker, Sponsor

Can Children Write Music?

BRENDA D. LASSEY — Professor Marilyn Saker, Sponsor

The Motet: An Introduction to an Early Musical Genre

Department of Associated Health Professions:

LAURIE WATERLOO — Professor Elizabeth Francis-Connolly, Sponsor

Musical Accompaniment to Therapy

Main Lounge, 1st Floor

Moderator: *Arthur Howard*

Department of Chemistry:

KATAY BOUTTAMY — Professor Arthur Howard, Sponsor

The Chemistry of 2,3-Dihydrothiazolo [3,2-a] Pyridinium Bromide

YVONNE SCAGGS — Professor Arthur Howard, Sponsor

An Approach to the Synthesis of Azaslafamines

Department of Computer Science:

DANIEL TAYLOR — Professor Zenia Jones, Sponsor

Internet Security Basics

Department of Political Science:

NATHAN BROWN, LAKEYSHA LOCKE, and SID MOEN — Professor Michael Harris, Sponsor

Budgeting for the City of Ypsilanti

Department of Physics and Astronomy:

MU-WAN HUANG — Professor Weidian Shen, Sponsor

Comparison of Topographic Image and Spectroscopic Images of Graphite Surface by Scanning Tunneling Microscope

Session Presentation Abstracts

COLLEGE OF ARTS AND SCIENCES

Department of African American Studies

LLOYD HOLT III — Professor Victor Oguejiofor Okafor, Sponsor

The Threat of Environmental Racism to African Americans. The paper examines the phenomenon of environmental racism and highlights its effects on minority neighborhoods of America, particularly African American communities. In describing the nature of environmental racism, the paper identifies a sample of communities that have fallen victim to it, cites examples of major industrial pollutants, and surveys community efforts to combat it. The paper compares the problem to the toxic-waste dumping that takes place in a number of poor nations of Africa. **Session C, Tower Room**

HYUN-SUN PARK — Professor Clovis E. Semmes, Sponsor
Korean and African-American Relations: Creating Cross-Cultural Understanding. The Los Angeles riots (April 29, 1992) hurt both Korean and African Americans economically and emotionally. However, some positives came from this event that brought better relations between these two groups. This paper provides a first-hand account of important efforts to create cross-cultural understanding. **Session A, Gallery I.**

Department of Art

DAVID GLEDHILL — Professor Richard Fairfield, Sponsor
High Relief Printmaking. This presentation will consist of a demonstration and discussion of the process used to create a high relief print from a sculpture relief. An emphasis will be placed on how the process was developed, including experimental concepts and examples. **Session B, Alumni Room**

BETH OGDEN — Professor Julie Myers, Sponsor
Richard Long: Walking the Primitive into the Present. This presentation shows affinities between the work of British sculptor Richard Long and the art and ritual of tribal societies. This presentation focuses on Long's use of walking, natural found materials, and documentation as an entrée into the aboriginal view of the world. **Session B, Tower Room**

JOHN GLEN POST — Professor Igor Baginin, Sponsor
My American Pantheon. What makes this series of myth-based watercolors singular in concept is the visual depiction of mythical characters. Lacking is a grand idealization of the nude or even physical representation of human form. Instead, static, and mundane objects common to American culture are portrayed with dramatism equivalent to past mythical art. All this imagery is presented within an ethereal tumult of watercolor woven within ink. Dynamic forms emerge only to sink back into the ambiguous chaos calling the viewer to look more deeply into the painting. **Session B, Tower Room**

Department of Biology

JOSEPH CARYL — Professor Allen Kurta, Sponsor
Ecology of Indiana Bats (*Myotis sodalis*) along the Raisin River. The Indiana bat is one of only two federally endangered mammals in Michigan, and in 1995 these bats were captured for the first time along the Raisin River in Washtenaw and Jackson counties.

Eventually, 14 roost trees were discovered using radiotracking techniques along a six-kilometer stretch of that river. In general, Indiana bats in Michigan appear to choose sunnier sites than colonies in southern states, and the bats in Michigan most commonly roost in ash and maple, in contrast to the oaks and hickories used by southern populations. **Session A, Tower Room**

CAROL LANDRY — Professor Gary Hannan, Sponsor
Genetic Variation Within and Between Populations of *Iris lacustris*, a Threatened Great Lakes Endemic. Molecular markers obtained from Random Amplification of Polymorphic DNA were used to estimate genetic variation in *Iris lacustris*. The genetic variation revealed by this technique was analyzed to determine its apportioning within and between the ten populations examined. These data indicate that 33% of the genetic variation is found within populations and 67% is found between populations of the species. Ecological factors that may have affected the apportioning are considered and conservation implications are discussed. **Session A, Tower Room**

Department of Chemistry

WANNEE ASAVAROENGCHAI — Professor Michael J. Brabec, Sponsor

Cell Survival Rates After Cadmium Treatment Increases With Heat Shock. Cells are hypothesized to be protected from further environmental stress after heat shock. To test this, rat lung epithelial cell cultures were heat shocked for up to 90 minutes and then treated with different concentrations (up to 60 μM) of cadmium chloride solutions. The neutral red assay was used to determine cell survival rates. The results were in agreement with the hypothesis under the experimental conditions. **Session A, Alumni Room**

KATAY BOUTTAMY — Professor Arthur Howard, Sponsor
The Chemistry of 2,3-Dihydrothiazolo [3,2-a] Pyridinium Bromide. The imidazo [1,2-a]-pyridine ring system forms the basic skeleton of a number of aza-alkaloids. A possible approach to its synthesis involves the reaction of readily prepared thiazolo [3,2-a]-pyridines with nitrogen nucleophiles, when ring opening followed by an alternative ring closure could occur. The literature contains contradictory claims as to the site of reaction of 2,3-dihydrothiazolo [3,2-a]pyridinium salts with nucleophiles, so a general survey of these reactions was undertaken. **Session C, Main Lounge**

THOM KLEPACH — Professor Masanobu Yamauchi, Sponsor
Coordination Chemistry of 1-Methyl 1,2,3-Triazole 4-Carboxylic Acid. 1-Methyl 1,2,3-triazole 4-carboxylic acid was synthesized and the pKa of the acid was determined to be 3.5 using a ^1H NMR extreme shift method. Previous studies of the aqueous coordination of this ligand with aluminum ion using routine techniques yielded ambiguous results. Refined acquisition and processing procedures such as solvent suppression, optimized sweep width, spline and zero order baseline corrections have produced more reliable results. These techniques have been applied to a ^1H NMR integration intensity Job's plot study of the complex stoichiometries. **Session A, Alumni Room**

H. STEPHEN LEE — Professor Michael J. Brabec, Sponsor
In Vitro Introduction of HSP27 mRNA by Benomyl. Induction of heat shock proteins (HSP) protects cells from stress. The goal of

this study is to investigate the expression of HSP27, one of the smaller HSP whose function is unknown, by rat lung epithelial cell cultures when they are treated with 20 and 40 μ M of benomyl and its metabolite Carbendazim. Detection using a RT/PCR system indicated that HSP27 mRNA expression was elevated, and that Carbendazim was the more potent inducer of HSP27 mRNA. **Session B, Tower Room**

CARRIE LEONARD — Professor Stephen Brewer, Sponsor
Rapid Headspace Analysis of Soils for Volatile Organic Compounds by Fast Gas Chromatography. Headspace analysis of soils for volatile organic compounds (VOCs) offers advantages over solvent extraction of soils. Headspace analysis is less time-consuming, avoids contamination, and avoids the problem of solvent disposal. Conventional gas chromatographic (GC) analysis of headspace vapors is, however, slow. Preliminary results for fast GC analysis of a variety of soil types for VOCs will be presented. **Session B, Tower Room**

YVONNE SCAGGS — Professor Arthur Howard, Sponsor
An Approach to the Synthesis of Azaslaframines. The indolizidine alkaloid slaframine is produced by a fungus that infects ruminant foragers. When ingested by cattle or sheep it causes excess salivation and diarrhea and may result in death. The mode of action of slaframine and a number of its simple derivatives has been investigated, but, to date, azaslaframines have not been reported. This presentation will describe work aimed at the synthesis of these compounds. **Session C, Main Lounge**

Department of Communication and Theatre Arts

JAMIE BORER — Professor James Robinson, Sponsor
Interracial Living: Is It Accepted Among Whites? Whites continue to have negative attitudes toward interracial relationships and interracial neighborhoods. Among the causes of these negative attitudes are stereotypes, the power structure, and White racial identity. This presentation will focus on some of the ways Whites perceive and deal with interracial living. **Session A, Gallery I**

AMY L. CARPENTER — Professor Katherine Strand-Evans, Sponsor
Humpty Dumpty: An Experiment in Nontraditional Theater Costume. This project demonstrated the use of several types of materials to create a three dimensional costume for the character Humpty Dumpty for the production of *Alice in Wonderland*. Considerations when constructing the costume included keeping the costume flexible and capable of being worn. **Session C, Intermedia Gallery**

TRACY MICHELLE ELZY — Professor James Robinson, Sponsor
The Effect of Stereotyping on Interracial Communication. All African Americans are familiar with racism in one form or another. Bi-racial people are sometimes subject to more subtle forms of racism. This presentation will address the author's personal experience with bi-racial racism, as well as the social challenges presented by, technically, being a member of two races. **Session A, Gallery I**

ANTONIO A. HARLAN — Professor Gary Evans, Sponsor
Communication, Conflict, and Relationship Enhancement. Often in relationships, conflict is seen as a hindrance to developing closeness and intimacy. By considering new communication strategies and options, conflict can provide the means for changing ineffective communication patterns. This presentation focuses

on some communication strategies and options that will result in relationship enhancement rather than relationship destruction. **Session A, Gallery I**

TRICIA JENTZ and REBECCA KENNERLY — Professor Kathleen Stacey, Sponsor
University Health Services Educational Programs: Students' Awareness. This presentation examines: (1) student awareness of the programs that University Health Services sponsor, (2) student participation in those programs, (3) possible reasons why students do or do not attend the programs, and (4) what type of information students would like to receive and how they would like to receive it. **Session A, Intermedia Gallery**

MICHAEL G. MILLIMAN — Professor Chris Wood Foreman, Sponsor
Twisting Pursuit: Educating Peers about Campus Life and Health Issues. Based upon the philosophical principals of game therapy, *Twisting Pursuit* (© pending) has been created where students respond to questions about health-related issues as they "twist" their way on the human game board towards the "pursuit" of a healthy and safe life. Issues covered include: stress, time management, relationships, alcohol/drug abuse, sexual abuse, sexual health, and general campus information. **Session B, Gallery I**

LEIGHANNE REDMOND — Professor Gary Evans, Sponsor
Gender Differences in Communication Strategies for Interpersonal Conflict. Previous research concerning gender differences are inconclusive, yet much suggests women communicate for interdependence and men communicate for independence. This may lead to different strategies for conflict resolution. However, we must be careful interpreting reported sex differences, as differences are often exaggerated and similarities ignored. Self-report studies generally elicit more gender difference than naturalistic observations. It may be that people behave differently under observation, or societal ideas of appropriate gender roles cause bias in self-reports. Both observations and self-reports of conflict were collected to compare/contrast results for sex differences. **Session C, Intermedia Gallery**

ANTHONY A. SEIVERT — Professor Henry B. Aldridge, Sponsor
Luis Bunuel's Wuthering Heights: A Case Study of Film Adaptation. Emily Bronte's brooding novel, *Wuthering Heights*, has been adapted for the screen twice. The first was William Wyler's 1937 classic starring Lawrence Olivier and Merle Oberon. The second, and lesser known version, was made in 1951 by the controversial Spanish director Luis Bunuel. This study argues that Bunuel was able to create an adaptation that was far richer and closer to the novel because he was free of the restraints of the Hollywood production system. This conclusion is reached from a close examination of both films and research among primary sources. **Session C, Gallery I**

MAURICE E. STOVALL — Professor Chris Wood Foreman, Sponsor
What's all This Fuss About Communication Skills?!?: A Study of Employers. Interviews and survey questionnaires were administered asking managers and human resources personnel about the importance of communication skills when hiring college graduates and when promoting from within. Results overwhelmingly reflect the need for *all* job candidates to possess communications skills and have the ability to express themselves in the work environment. A motivational presentation will be given to provide insight into what specific communication skills employers are looking for and the reasons why. **Session C, Gallery I**

STEPHEN WHITLOW — Professor James Robinson, Sponsor The Perpetuation and Rejection of Oppression by White Culture. The majority of White culture in the United States do not acknowledge the presence of racism and the oppressed lives that have resulted from this country's practices. This presentation will deal with the attitude of White-centric culture that racism is a thing of the past. Also, it will confront White-centric culture's assignment of so-called Black inferiorities and problems to Blacks, instead of accepting responsibility for the long enduring "White problems". **Session A, Gallery I**

Department of Computer Science

DAVID BARNETT — Professor H. Höft, Sponsor Bouncing Ball - Computational Analysis and Graphical Implementation. The presentation will include sample test runs of a Mathematica program graphically modeling an ideal system of a ball dropped into a rigid parabola. An analysis of the resulting patterns as a chaotic system will be given. Finally, the problems inherent in approximate calculations with computers and their subtle effects on the description of a physical system such as bouncing a ball will be discussed. **Session A, Alumni Room**

ROBERT DUDDLES — Professor Zenia Jones, Sponsor Setup and Operation of a Macintosh Web Server. This presentation's topics will include what is required both of the machine and software, as well as recommended structure and maintenance of web pages. Making the machine do double duty as an FTP site also will be discussed, including an overview of Macintosh networking. **Session A, Alumni Room**

DANIEL TAYLOR — Professor Zenia Jones, Sponsor Internet Security Basics. "Netscape." It's on the lips of everyone these days. With the recent explosion of the World Wide Web and the public's embrace of it, web pages are everywhere. Big name companies are flocking to offer their services. While the Internet is probably tomorrow's promised land for business, it offers an attractive opportunity to today's hackers. This presentation will discuss the basics of data encryption and the implications of future World Wide Web use. **Session C, Main Lounge**

Department of Economics

KELLEY ALTESE — Professor Sharon Erenburg, Sponsor Polish Economic Reform: Shock Therapy and The Balcerowicz Plan of 1990. In 1989, the Polish government made the risky decision to marketize their entire economy with a sudden or "shock therapy" approach. This presentation will look specifically at the Balcerowicz Plan of 1990 and its effectiveness in achieving macroeconomic stabilization in both short and long run analysis. **Session C, Reception Room**

CORY BERGEN — Professor John A. Edgren, Sponsor Use of Western Public Land. The use of public lands in the Western United States is examined, focusing on grazing fees. The federal government subsidizes commercial users. While a true market price for grazing fees is significantly higher than the existing government-subsidized price, an even higher fee would result from taking long-neglected "option" and "existence" values into consideration. Cost/benefit models analyzing issues facing the Western public lands should be based on all sources of value. **Session C, Gallery II**

BLAIR BORGIA — Professor Sharon Erenburg, Sponsor Mexico 1996: A Macroeconomic Analysis of a Troubled Economy. Through its inherent flaws of design, the nation of Mexico provides

an exceptional example of how the stimulative effects of monetary and/or fiscal policy can be negated. This presentation will focus on what measures have been taken by the international community to ensure the solvency of the Mexican system. Special consideration will be given to the declining value of the peso, along with a discussion of current aid packages which may be implemented. **Session C, Reception Room**

THOMAS JANKOWSKI — Professor John A. Edgren, Sponsor Oil Exploration in the Arctic National Wildlife Refuge: Two Variations on an Economic Theme. This paper examines two distinct policy positions about use of the National Wildlife Refuge in Alaska. To evaluate their merits, social and private costs and benefits are considered, including the likely impacts of oil exploration. The analysis considers the case in which oil is found, and the case in which it is not. It evaluates the circumstances that must hold in crude oil markets for a cost-effective exploitation of discovered oil. **Session C, Gallery II**

VALERIE OBEE — Professor Sharon Erenburg, Sponsor The Economic Effects of German Reunification. The reunification of East and West Germany on October 3, 1990, came at a tremendous cost. Unemployment rates skyrocketed as many East German factories closed down. Industrial production in the East fell 70%, hampered by low productivity rates and artificially inflated wages. High inflation and interest rates, along with soaring federal deficit, plagued the economy, causing fluctuations in the value of the Deutsch Mark and threatening Germany's export market. **Session B, Reception Room**

MATTHEW ROLF — Professor Abdullah A. Dewan, Sponsor What Makes a Bank Efficient? An Analysis of Banks' Financial Characteristics and Management. Increasing competition, deregulation, and technological advances in the banking industry have intensified the need for controlling costs and efficiently providing financial services. The paper focuses on important factors affecting banks' costs and efficiency of operations. These include technological advances, consolidation and acquisitions, risk management, portfolio diversification, and increases in financial services. **Session A, Gallery II**

KENDRA SMITH — Professor Sharon Erenburg, Sponsor Implications of the Classical Model for Future Economic Policy. It can be concluded that the Great Depression was exacerbated by the belief in classical models, a lack of alternative models, and insufficient information about the way the economy worked. This presentation will explore how belief in these classical models affected the U.S. economy during the Great Depression and how new models based on classical beliefs could lead to a similar catastrophe in the future. **Session B, Reception Room**

Department of English Language and Literature

LAMONT D. ANTIEAU — Professor Phillip Arrington, Sponsor Making Sense of Interlanguage. According to psycholinguist Larry Selinker, an "interlanguage" is a system that occurs in second language learners as a way of dealing with the new language. This presentation describes how interlanguages are formed and also explores the concept and dangers of "fossilization" in the interlanguage. **Session C, Gallery I**

JAIME DUNLAP — Professor Heather Neff, Sponsor Jean Toomer as Prophet. This presentation provides an exploration of the work of Harlem Renaissance pioneer Jean Toomer as a late expression of Imagist theory, providing a particular focus on

the construction of the female in Toomer's *Cane*. **Session B, Main Lounge**

JANICE GUICE — Professor Heather Neff, Sponsor
Uniquely a Woman's Struggle. Throughout history women have been willing to suffer immeasurable pain to protect the lives and futures of their children. In this presentation the author offers a homage to this uniquely woman's struggle, providing an interpretation of Harriet Jacobs' story, "Incidents in the Life of a Slave Girl, Seven Years Concealed." The narrative is Jacobs' personal account of the price she and other mothers in the Black slave community paid for the lives of their children. **Session B, Main Lounge**

ANGELA D. HERTLE — Professor Ian Wojcik-Andrews, Sponsor
Savage Product of the Societal Imagination: A Comparative Study of *Peter Pan* and *Lord of the Flies*. Both William Golding's *Lord of the Flies* and J. M. Barre's *Peter Pan* were published during tumultuous times, though they are vastly different in their presentation and interpretation of world events. But the undertone of each, analyzed in this presentation, is apparent in the emphasis on the inherent evil in all children, especially boys. **Session B, Faculty Lounge**

KENNETH J. KARGES — Professor David Geherin, Sponsor
In the Coliseum: Gladiatorial Games and Their Context. This presentation describes a day at the Coliseum in imperial Rome. Gladiatorial games, beast hunts, and executions will be described from the point of view of the Roman spectators. The context of the games will also be discussed and it will be argued that the games should not be seen simply as moral monstrosities but are best viewed as an understandable outgrowth of the particular Roman cultural context. **Session B, Faculty Lounge**

MOIRA M. KINDIG — Professor James Angle, Sponsor
The Many Faces of Delaney Rose. This short story is an account of an elderly woman's quest for independence and her struggle to discover herself in a demanding environment. Each facet of the story reveals a new aspect of her life and character, as the story progresses to the point the woman makes her final decision. **Session A, Faculty Lounge**

TRISA R. KLIPP — Professor Heather Neff, Sponsor
Bathing of Body and Spirit. This presentation is centered on excerpts from Toni Morrison's *Beloved* and Gloria Naylor's *The Women of Brewster Place*, focusing on the act of one woman "bathing" another as a metaphorical baptism into a particularly Black female experience of physical and spiritual rebirth. **Session B, Main Lounge**

PATRICIA LLOYD — Professor William Hauer, Sponsor
Comparison of Tragic Endings of *Billy Budd* and *Othello*. Herman Melville, a BIG fan of Shakespeare, models his last novel, *Billy Budd*, on *Othello*. Searching for order in life's chaos, Melville intriguingly re-creates in *Billy Budd* the classic tragic end that Shakespeare invokes in *Othello*. **Session A, Faculty Lounge**

JENNIFER LORENZ — Professor Bill Tucker, Sponsor
Literature versus Basal. This presentation compares two reading curriculum methods: the basal approach and the literature based program. Here, *Alexander and the Terrible, Horrible, No Good, Very Bad Day*, by Judith Viorst, represents material used in a literature based program, whereas "Maria's Adopted Pet," by Charles Walcutt and Glen McCracken, represents that used in a basal reader. **Session B, Gallery I**

G. SAM MCKINNEY — Professor Heather Neff, Sponsor
Silent Letter to Massah. Drawn heavily from the lives of women as described in the slave narratives, this presentation provides the "stream of consciousness" of an illiterate slave as she appeals to her master for freedom after a lifetime of sexual and emotional abuse. **Session B, Main Lounge**

TARA K. MOFFETT — Professor Harry Eiss, Sponsor
Jungian Concepts in Tolkien's *The Hobbit*. H. R. Tolkien's *The Hobbit* has long been analyzed by psychologists, targeted by feminists, and often touted by Christians for its underlying allegorical possibilities. In this analysis the presenter addresses these concerns and others through the application of Jung's theories of archetypes and the unconscious in *The Hobbit*. **Session B, Faculty Lounge**

KATHRYN M. WRUBEL — Professor Jeffrey Duncan, Sponsor
Sanctuary. This presentation is an autobiographical essay about the author's experiences within the punk rock scene. It includes some remarkably vivid descriptions of the characters, places, music, and experiences of that subculture. **Session C, Faculty Lounge**

Department of Foreign Languages and Bilingual Studies

STACIA BANNAN — Professor E. Catherine Day, Sponsor
The Education of Linguistic Minorities in Luxembourg, Germany, and Other European Contexts. This paper deals with the education of linguistic minorities, especially immigrants, in Luxembourg and Germany, as an example of a more general phenomenon observable in European countries. While the school system is very effective in teaching native children a second language, and sometimes a third or fourth, it is inadequate for the needs of immigrant children seeking access to the mainstream culture. Comparisons are made with the U.S. situation. **Session A, Intermedia Gallery**

JASON FRANK — Professor Geneviève Peden, Sponsor
A Divided France: 1940-1942. This presentation will focus on the events that divided France politically during the German occupation. This will also include harsh examples of everyday life that pitted the French people against each other as well as examples of those who fought against defeatism. **Session B, Tower Room**

JANICE M. HABARTH — Professor Reynaldo Ruiz, Sponsor
Newspapers and Noticias: What Makes the Daily Paper in Mexico and the U.S. This presentation will address differences between *El Universal* from Mexico City and *The Washington Post* from Washington, D.C. Considering both language usage and the informational content of the two papers, this study will offer possible cultural explanations for discrepancies in news coverage. Important considerations include: 1) what makes an event newsworthy, 2) what cultural biases might influence coverage of certain events, and 3) how newspapers reflect their cultures of origin. **Session C, Reception Room**

IRENE JULIA (IRINA) KNOKH — Professor J. Sanford Dugan, Sponsor
Edith Piaf — The Other France. France and the United States face certain cultural tensions. Many Americans see French museums, Notre Dame, and fashion shows. In contrast, Edith Piaf was the urchin of Paris; the other side of France. She sang on the streets about the streets. This presentation will concentrate on the important stages in her career and, to show that her music is understood

by people the world over, will close with piano versions of her famous songs. **Session A, Salon**

ANNE M. MUTO — Professor Anne G. Nerenz, Sponsor
Introducing Culture in the Foreign Language Classroom. Learning a foreign language is not just a matter of manipulating a code. It requires internalizing attitudes, traditions, and customs. This study describes the development and implementation of teaching modules designed to correct stereotypes in student attitudes toward a foreign culture. The modules present authentic aspects of France in three areas, high culture, daily life, and social institutions. **Session C, Reception Room**

KRISZTINA J. UJVAGI — Professor John R. Hubbard, Sponsor
A Matter of Form: Cultural Differences Reflected in Business Documents. In the evolving global market, it is essential that international business people be sensitive to the cultures of those countries with which they are doing business. This presentation will focus on the differences that exist between business forms and cultures in the United States, Germany, and Hungary. Business letters, proposals, memos, and faxes in the three languages will be compared. Also, variations which exist between the business cultures of these three countries will be examined. **Session C, Alumni Room**

FATIN ZAYED — Professor Alfonso Illingworth-Rico, Sponsor
Some Gender Narratological Implications in Juan Rulfo's *Pedro Páramo*. The novel *Pedro Páramo*, by Mexico's Juan Rulfo, recounts the beliefs and actions of a "typical" Mexican man. Yet the reader encounters several women and the problems they face, especially the struggle between, on the one hand, following the norms of the Catholic Church and society in general and, on the other, giving in to their desires and suffering the consequences. This paper will deal with the different concepts male and especially female readers learn from the novel. **Session C, Alumni Room**

Department of Geography and Geology

LESA A. BAGBY — Professor M. Kasenow, Sponsor
Aquifer Tests: Conventional Methods. Important aquifer characteristics in regards to ground-water management are transmissivity and the storage coefficient. The Theis and Cooper-Jacob solutions are currently used to estimate these parameters. Both are graphical methods that require information from a pump test. Each has advantages and disadvantages, but in most cases can be used as complementary evidence. In addition, the Theis solution can be manipulated to estimate the transient limit of the cone of depression. **Session A, Tower Room**

BENJAMIN R. BLACK — Professor M. Kasenow, Sponsor
Boundary Conditions: Utilizing the $Z(\mu)$ Solution. The $Z(\mu)$ solution can be used to analyze aquifer test data under the influence of a ground-water boundary or a leaky confined condition. This greatly simplifies a process, which using current solution methods, is at best tedious. A computer program will be demonstrated that solves for aquifer parameters under the influence of a ground-water boundary. The results will be compared to analysis of pump test data collected from the same system not under the influence of the boundary. **Session A, Tower Room**

DEANA GUERRERO — Professor M. Kasenow, Sponsor
Aquifer Tests: A New Approach. Current solutions that are used to analyze pump test data require graphical analysis. These may be prone to error due to plotting of data points and subjective

interpretation in regards to curve matching or slope construction. A promising new method has recently been developed which allows for aquifer parameter estimation without graphical analysis. Most of the subjective interpretation is eliminated, because there is no need to plot data points, match a curve or construct a slope. A computer program will be demonstrated. **Session A, Tower Room**

SHARON MARIE HOUSTON — Professor C. Ojala, Sponsor
Michigan Ice Jams. Ice jams cause millions of dollars in damage each year in the United States. Ice-jammed rivers have the potential to destroy homes and bridges, to create river bank failure, and even to cause the loss of human life. This presentation provides an overview of where ice jams occur in Michigan, shows the severity of ice jam flooding, and discusses the completion of this project during a student internship with the National Weather Service. **Session A, Main Lounge**

LISA SAUL — Professor Norm Tyler, Sponsor
The Cemazar House and Furniture. Andrew Cemazar was an early twentieth-century immigrant from Austria. The availability of jobs in the burgeoning automobile industry resulted in his settlement in Detroit. Cemazar brought to America's melting pot culture an incredible skill at marquetry and furniture design. He built numerous pieces of furniture, and a home to display them. The house itself is saturated with his inlay designs. This presentation will recognize the distinctive quality and skill of Cemazar's craft. **Session C, Reception Room**

Department of History and Philosophy

MARK CHRISTENSEN — Professor Kate Mehuron, Sponsor
Imagination and The Speculative Mind: Re-Imagining the Aristotelian Account. Aristotle, in the *Psychology*, argues that the "speculative mind" is separable from the other functions of "the soul." He also attempts to give an account of the imagination: however, he cannot seem to decide whether imagination is rooted in the speculate mind, or in some other aspect of "the soul." In this paper I argue that the imagination is necessarily conceded to both the "speculative mind" and "sensation" and that it links the two together. **Session C, Faculty Lounge**

MARK CHRISTENSEN — Professor Michael Reed, Sponsor
Investigating "Style Talk". We talk about "style" in many different ways, and in many different situations. Jennifer Robinson argues we can define style in terms of the author's personality. This definition illuminates some of the ways we talk about literary style, but ignores others. In this paper, I argue, from the Wittgensteinian doctrine of family resemblances, that our understanding of literary style does not require definition in order to be intelligible. **Session A, Faculty Lounge**

NICOLE CROCKETT, DARRELL DIUGUID, JOHN GATES, ALLEN KOBLER, and JUDY REYNOLDS — Professor Daryl Hafter, Sponsor
Technology in Today's World: How Does Technology in the 90's Change Work and Workers? The idea for this panel grew out of reports the students in History 290: History of Technology gave about individuals they interviewed. Each oral history interview examined 1) how the respondent used technology on the job today, 2) how the skill was acquired, 3) how it differed from work in earlier times, and 4) whether the new technology was a help or a hindrance. **Session A, Gallery II**

STACI EVANS — Professor Ron Delph, Sponsor
Women in Viking Society. Contrary to most popular beliefs,

women in the Viking age participated in virtually all aspects of society. Through the use of archeological evidence, historians have pieced together the power and status of individual Viking women. This evidence demonstrated that the Viking era led to increased social freedoms for women in the domestic and public spheres. These freedoms allowed women to engage in society as pioneers, colonists, merchants, warriors, or even "kings." **Session C, Tower Room**

KENNETH J. KARGES — Professor Thomas Franks, Sponsor Kierkegaard's Knight of Faith: An Overman in Christian Clothing. This presentation compares Kierkegaard's knight of faith with Nietzsche's overman and concludes that both philosophers are talking about essentially the same type of man: one who rejects conventional, objective morality and thus is the creator of his own system of values. The knight identifies God as the creator of his values, but "God's will" could be seen as a projection of the knight's own will to power. **Session B, Faculty Lounge**

DANIEL PRICE — Professor Margaret Crouch, Sponsor Parental Involvement in Education: Raising Achievement Levels. This presentation will focus on the issue of parental involvement in the education of children. Specifically, this paper attempts to prove that parental involvement is a primary factor in raising achievement levels in schools. My proof consists of two studies which set up programs for parental involvement, and compared achievement levels before and after implementation of these programs. **Session B, Gallery I**

ANDREW SOIFER — Professor Michael Carlsen-Jones, Sponsor Socrates and Bill Wilson. In my paper I show that Bill Wilson, a co-founder of Alcoholics Anonymous, was influenced by the philosophy of Socrates and Plato when he formulated and wrote the Twelve Steps of AA. **Session A, Faculty Lounge**

MARY-LU STRIMBEL, BETHANY BALL, ANGELA MEADOR and SUE REID — Professor Daryl Hafter, Sponsor Women's Contributions to History Reveal Unexpected Cultural Richness and Complexity. This panel shows how women helped to establish early Christianity and held places of authority. In the Middle Ages, Christian doctrine continued to be the concern of female mystics. Later, women helped to form a unique social culture in the Franco-American fur trade, and they promoted conservative and feminist social reforms within the tradition-oriented Women's Christian Temperance Union. **Session C, Gallery II**

Department of Mathematics

JENNIFER DROELLE — Professor Carla Tayeh, Sponsor Assessing Problem Solving Ability Through Student Writings. This presentation will focus on student writings as a vehicle for assessing problem solving skills in the elementary school mathematics classroom. Specific examples of writing prompts and journals that encourage student reflection on their thinking processes and strategies used to solve problems will be shared in addition to implications for the classroom teacher. **Session B, Alumni Room**

GAIL FURBACHER and GINA MARTINI — Professor David C. Johnson, Sponsor A Glimpse into the Math Related Careers of Selected Females in Southeastern Michigan. Traditionally, for many reasons, math, science and technology have not attracted many females. That prompted CUNY to apply for and receive a grant on gender equity to help alleviate the problem. This presentation shows how some

female students working under the guidance of an EMU professor used this grant to produce a manual containing biographies and classroom activities provided by a sample of women in Southeast Michigan working in math-related careers. **Session B, Intermedia Gallery**

HOOKKI JACKSON, STACEY ROKICSAK, and JOHN TAVERNIER — Professor Joanne Caniglia, Sponsor Strategies Children Utilize in Solving Multiplication Problems. Children's solutions to simple multiplication and division problems were analyzed in a 9-session small group environment in a 4th grade classroom. This presentation will identify the strategies the children used to solve problems and the models that were effective in enabling students to understand multiplication processes. **Session B, Intermedia Gallery**

BRENT OTTO and PAUL DEEMER — Professor Bette Warren, Sponsor Calculus Students' Dilemma: Elementary Functions Without Elementary Integrals. Many students taking an introductory calculus course have expressed to us as tutors the obstacle encountered with impossibilities of integration for certain elementary functions. Various proofs written concerning impossibility of integration for certain classes of elementary functions are rigorous. This research will study them thoroughly and present the various techniques in a formation much simpler than the proofs themselves. **Session B, Intermedia Gallery**

AMY UPHMAN, BRYAN JOHNSON, and MARY HEAVNER — Professor Joanne Caniglia, Sponsor Young Children's Misconceptions of Prenomber Concepts. Misconceptions that children possess in counting, adding, and place value will be discussed from a study of first, second, and third graders. This presentation will not only classify the type of misconceptions children hold, but also describe remediation models that were consistent with their cognitive development. **Session A, Intermedia Gallery**

MARCH WELLS III — Professor Donald Buckeye, Sponsor Review and Comparison of Elementary Mathematics Pilot Program to Current Program in the Ann Arbor District. This presentation will identify the components of the pilot, with particular attention given to those elements differing markedly from current program goals and objectives. Focus will be given to the pilot's support of NCTM and district standards. Comparisons and contrasts will be identified. Student, parent and faculty reactions will be considered through observation and an interview format. **Session A, Intermedia Gallery**

Department of Music

SUSAN BICKNER, Soprano, LOIS KAARRE, Piano — Professor Glenda Kirkland, Sponsor "Songs of The Auvergne" by Joseph Canteloube (Series 3). A performance of this song cycle will include five French folk songs set to music for voice and piano. A brief discussion will include: 1) the life story of Joseph Canteloube, and 2) a description of "The Songs of the Auvergne." **Session A, Salon**

BRENDA D. LASSEY — Professor Marilyn Saker, Sponsor The Motet: An Introduction to an Early Musical Genre. This presentation will introduce the motet as a musical genre used by many composers in the Late Renaissance Age. A specific example that will be used is Tomas Luis de Victoria's *O Magnum Mysterium*. The following aspects will be covered in the discussion of this work: 1) cadences, 2) points of imitation, 3) nonharmonic

tones, and 4) the early presence of elements found mainly in later genres. Victoria's education will also be examined in relation to the new techniques he uses. **Session C, Intermedia Gallery**

MATTHEW MANKOFF, Alto Saxophone, LOIS KAARRE, Piano — Professor Timothy Miller, Sponsor
Concertino Da Camera - mvt. II Larghetto, Animato molto - by Jacques Ibert. Jacques Ibert (1890-1962) combined both Impressionist and Neoclassic techniques in his compositions. The *Concerto Da Camera*, written in 1935 specifically for the German saxophone virtuoso Sigurd Rascher, was influenced heavily by jazz styles of the late 1920's and early 30's as heard from the syncopated rhythms. **Session A, Salon**

JOHN SANCHEZ — Professor Nelson Amos, Sponsor
Hommage 'a Tarrega, Opus 69 by Joaquin Turina (I. Garrotin, II. Soleares). Joaquin Turina was a major Spanish composer of his era who specialized in a nationalistic style in which the spirit of flamenco music was captured. This is most evident in his chamber music, and in his various works for piano, and orchestra. Since flamenco music is largely based on the sounds of the guitar, it was only natural for him to write for the actual instrument itself. The two pieces Garrotin and Soleares flamenco dances in duple and triple meter respectively, were dedicated to the memory of Francisco Tarrega. **Session A, Salon**

MARIE SCHLEPERS — Professor Marilyn Saker, Sponsor
Can Children Write Music? What happens when a group of 10 - 13 year old children, the majority of whom have little or no music training, are given a set of 5 or 6 pitches and challenged to write a short song? Can the untrained mind and ear compose music? Are 5 or 6 pitches enough with which to work? This project seeks to answer these questions. **Session C, Intermedia Gallery**

CYNTHIA STEMPLÉ — Professor Louise Patrick, Sponsor
An Introduction to Gregorian Chant. This presentation is an outgrowth of a lecture designed to introduce Gregorian Chant in a format that is understandable to both children and adults. It will include: 1) a brief history of both chant and notation, 2) examples of the music and text, and 3) examples of age appropriate materials. **Session C, Gallery I**

ZHIHUA TANG — Professor Dady Mehta, Sponsor
Chopin: Scherzo No. 4 op. 54. Literally, the word scherzo means joke. Chopin has written a total of four scherzos. Although Scherzo No. 4 in E major is the most complex and profound of Chopin's scherzos, the virtuosity is not readily apparent, particularly when compared to the other scherzos. Pianistically, it is considered to be the most demanding composition of the group. Scherzo No. 4 is composed in ABA form. The middle section ("B" section) consists of an incredible harmonic modulation which is unique even for a work by Chopin. **Session A, Salon**

Department of Physics and Astronomy

MU-WAN HUANG — Professor Weidian Shen, Sponsor
Comparison of Topographic Image and Spectroscopic Images of Graphite Surface by Scanning Tunneling Microscope. Scanning tunneling microscope (STM) is designed based on quantum theory. Due to its very high resolution, STM is a powerful tool in surface science. Its topographic image shows the distribution of the total density of states of electrons around the Fermi level on the surface, while its spectroscopic image shows the density of states of electrons at different energy levels. This presentation will discuss the basic quantum theory of STM and compare the topographic image with the spectroscopic images at different

energy levels on the surface of graphite. **Session C, Main Lounge**

JEFFREY MICHAEL WILSON — Professor Norbert Vance, Sponsor
1.2 GHz Radio Telescope. Practical research in radio astronomy is an extremely important, but relatively unknown segment of the broader discipline of astronomy. Recently, several parties here at Eastern Michigan University have joined together to install a radio telescope at Sherzer Observatory. This report will explain how the new, ten-foot diameter 1.2 GHz Radio Telescope was constructed, how it "sees" objects in space, and why this telescope is an important, practical educational research tool. **Session A, Alumni Room**

Department of Political Science

NATHAN BROWN, LAKEYSHA LOCKE, and SID MOEN — Professor Michael Harris, Sponsor
Budgeting for the City of Ypsilanti. This presentation will focus on the budgeting process for the City of Ypsilanti. We will examine the process of formulating a budget and its passage into law. We will analyze how resources are allocated among the various departments and programs. Our presentation will also provide a brief synopsis of the city's historical background and development. We will conclude with recommendations to the city's government concerning ways to improve the budget process. **Session C, Main Lounge**

GAYTHA MARIE BUTTERS — Professor Michael Harris, Sponsor
The Webster Township Budget. This presentation will focus on the analysis of Webster Township's budget process. The analysis is guided by a theoretical foundation of budgeting. The presentation is based on empirical data obtained from documents, interviews, and participation in township meetings. The primary emphasis of this presentation is to explore the budgeting process and the role of different participants. The socio-political environment provides a valuable insight into the decision making process in a small community. **Session B, Intermedia Gallery**

JOHN ENGEL — Professor Michael Harris, Sponsor
Analysis of Budgeting in the City of Saline. The recent federal budget crisis is illustrative of the complexity of the resource allocation process and the constant attention it requires. Virtually every government decision, at all levels, involves budgetary considerations. The purpose of this paper is to analyze the budgeting process in the City of Saline. The analysis employs a theoretical approach and analyzes both qualitative and quantitative data. The primary focus will be on the city administrator's role in the process. The impact of Proposal A will also be examined. **Session B, Intermedia Gallery**

STEVEN MICHELS — Professor Rhonda Kinney, Sponsor
Freedom of Speech and Political Justice. Civil liberties have long been held as the foundation of the democratic ideal. Freedom of speech in particular has been held to be vital to ensuring justice. However, I argue that free public discourse is not absolutely necessary for the establishment of political justice. This paper analyzes the writings of several American political figures as well as those of classical philosophers to substantiate this claim. **Session C, Gallery II**

WILLIAM PORTER — Professor Bernard J. O'Connor, Sponsor
C.A.F.E. and the American Love Affair. This presentation will

examine the implementation, evolution and effectiveness of the Corporate Average Fuel Economy (C.A.F.E.) system. Further it will discuss proposed legislation to increase fuel efficiency standards and issues such as safety, jobs, vehicle price, and penalties raised by such propositions. Finally, this presentation will review some alternatives to C.A.F.E. legislation that will achieve the same desired effect. **Session B, Reception Room**

LOUANN POWELL — Professor Rhonda Kinney, Sponsor
Women and Women's Issues in American Politics. This presentation will explore the saliency of traditionally defined "women's issues" in American politics. The central focus of this study is to determine the relationship between the level of women in politics and the importance these women place on "women's issues." As the level of women involved in politics increases, are these women increasingly or decreasingly focused on issues traditionally considered to be within their domain? **Session A, Gallery II**

SCOTT RECTOR — Professor Bernard J. O'Connor, Sponsor
Executive Orders and the Legislative Process. Throughout the history of the United States, a struggle for power has existed between the executive and legislative branches of the government. Seeking more legislative control, presidents have often attempted to circumvent congressional authority by way of the executive order. This presentation will show how presidential legislative power has increased substantially through the years with an aggressive use of these orders and the methods with which Congress has attempted to keep it in check. **Session A, Gallery II**

ROBERT STEARNS — Professor Bernard J. O'Connor, Sponsor
Guilty Until Proven Innocent: Presumption of Constitutionality v. Personal Rights. When the government acts, that action is ordinarily presumed to be constitutional. When a person is accused of a crime, that person is presumed to have certain rights. These two presumptions are sometimes in conflict. This presentation will focus on how they can be reconciled. It will focus on criminal matters and other rights granted by the Constitution, either directly or by implication. It will also examine alternate theories of the presumption of constitutionality for government action, such as in the cases United States v. Carolene Products, Inc. (1938) and Yick Wo v. Hopkins (1886). **Session A, Gallery II**

ANDREW T. STRAHAN — Professors Rhonda Kinney and Bernard J. O'Connor, Sponsors
Newt Gingrich and the Wright Stuff. This project attempts to establish a framework for understanding the ways in which scandals play out in the political arena. By modeling how politicians learn from previous incidents and adapt strategies, we can understand why similar controversies may have significant effects at one point but are perceived insignificant at another. This framework also incorporates the role and effect of other actors in the political environment including the media, the public and political professionals. **Session C, Gallery II**

Department of Psychology

COLLEEN ANDERSON — Professor John McManus, Sponsor
Teen Fathers: Incidence, Factors of Influence, and Suggested Interventions. Teenage pregnancy in the United States is a significant problem, with about a million teenagers becoming pregnant each year. Teenage fathers and relevant issues regarding them are often ignored. This presentation addresses key issues involved in being an adolescent father, with suggestions for societal changes highlighted. **Session B, Gallery I**

H. KALYNA KUNZE — Professor Dennis J. Delprato, Sponsor
Development of a Scale to Measure Human Service Clinicians' Attitudes Toward Graphing Client Data. This presentation reports the development of a scale to measure human service clinicians' attitudes toward graphing client data when monitoring clinical progress. Similarities and differences between graduate students enrolled in two EMU clinical training programs were examined. The need for maintaining accountability among clinical psychologists is discussed in terms of documentation and utilization review by third party payers. **Session B, Faculty Lounge**

JAMES SCHUTTE — Professor John McManus, Sponsor
Healing Models - Old and New. This presentation discussed the major dimensions of "wellness." Comparisons of western/eastern healing paradigms are discussed, with a focus on mind/body research. Finally, evidence for a convergence of ancient/modern health care models is portrayed. **Session A, Main Lounge**

MARK SHEELY — Professor John McManus, Sponsor
Traffic Laws: Encouraging Us to Break Them. Research findings regarding mass media influences on driving behavior suggest that media such as film, television, music, and advertisements all contribute to law breaking behaviors among the driving public. Media examples and societal implications of this research are discussed. **Session A, Main Lounge**

KAREN UEBERROTH — Professor Elliott Bonem, Sponsor
The Effects of Hands-on Computer Experience. In addition to lecture, homework, quizzes, and exams, COSC 136 students must complete 8-10 hands-on computer projects. These are typically done in the Pray-Harold 520 lab. COSC 136 students were given a survey at the beginning of the semester and another at the end. The results provided the content of this presentation: the effects of hands-on computer experience on students' enjoyment, anxiety, and skill levels in an introductory level Computer Science course. **Session C, Alumni Room**

Department of Sociology, Anthropology, and Criminology

DIANE FLAHERTY CAMPBELL — Professor E. L. Cerroni-Long, Sponsor
Music and Healing: A Cross-Cultural Analysis. Music has been associated with healing practices since prehistoric times. Various non-Western cultures continue this tradition. In shamanic healing rituals, for example, music facilitates entrance into an altered state of consciousness, which is conducive to restoration of well-being. Also Western therapeutic procedures are beginning to incorporate music in various ways. This trend will be discussed, particularly in reference to the use of music therapy in the treatment of autism. **Session C, Faculty Lounge**

ANNA COLLIER — Professor Karen Brown-Ehrlich, Sponsor
The Silent Voice: An Analysis of the Social Functions of Graffiti at Eastern Michigan University. Using data collected from women's restrooms on campus, this paper examines graffiti and some of its social functions within the community. The hypothesis is that the bathroom environment creates a faceless arena for women to privately write graffiti about personal issues, and often solicits responses from the public. Analysis of the data was established first through a division of the graffiti by content, and second through a comparison of responses to the original piece of graffiti. Using this method to closely examine the data, graffiti was found to be an important form of communication within the community. Not only did the graffiti allow individuals access to the value and norms

within this social group, it also established possible advice for those seeking answers to personal dilemmas. **Session A, Faculty Lounge**

IRENE JULIA (IRINA) KNOKH — Professor Gordon E. Moss, Sponsor

The Influence of History and Philosophy on Sociology. This presentation will show that there is a connection between sociology, history, and philosophy. Emile Durkheim's theories of human nature (for example, that humans should have moral constraints to be free), are echoed in the philosophers' ideas during the historical events of the 17th and 18th century. **Session C, Faculty Lounge**

Laurie Ford Wilson — Professor E. L. Cerroni-Long, Sponsor

Lindow Man: An Iron-Age Body Brings Legends to Life. The lifestyle of the pre-Roman Celtic peoples of the British Isles is largely steeped in mystery and has been mainly considered in the context of folklore and legend. The 1984 discovery of the well-preserved body of the sacrificed Lindow Man in a peat bog in northern England provided tangible evidence for religious rituals previously uncorroborated. This paper examines the forensic evidence derived from this anthropological find and relates it to Celtic legends. **Session C, Faculty Lounge**

Women's Studies Program

Sharon A. Braun — Professors Rachel Brett Harley and Deborah Herbert, Sponsors

Magazine Advertising: The Possible Violence Resulting from the Objectification of Women. This presentation is the third part in a group activity that focused on magazine advertising and its detrimental effects on women's lives. The objectification of women leads to concerns that men who have seen these ads will receive subjective messages that will allow them to view violence against women as acceptable behavior. **Session C, Tower Room**

Dawn Fisher — Professors Rachel Brett Harley and Deborah Herbert, Sponsors

Good Marketing or Sexism? The Portrayal of Women in Fragrance Advertisements in Magazines. Advertisers rely heavily on the use of women in various states of undress to sell fragrances. This presentation looks at how women are portrayed in magazine advertisements, why naked women are used to sell perfume to women, why this advertising strategy seems to be working, and how it affects women. **Session C, Tower Room**

Ty Cassidy James — Professor Rachel Brett Harley, Sponsor

Chivalry's Origin, Acceptance, and Harmful Manipulation Within Our Culture. This presentation discusses the notion of chivalry: its origins, definition, influence and the evolution of its significance in our culture, specifically within female/male relations. The powerful, yet often unnoticed repercussions of holding chivalry as an acceptable, even truthful value standard are shown to not only harm and limit our views and understanding of men and women, but to also block any progress toward the desirable, genuinely sexist-free environment we claim to seek. **Session B, Main Lounge**

Erin Warne — Professors Rachel Brett Harley and Deborah Herbert, Sponsors

The Media and its Influence on Eating Disorders. The media bombard women of all ages with thin, beautiful women striving to gain the attention of men. This presentation shows how these images portray women's bodies as objects that need to be care-

fully molded and firmly shaped. Because these images are so prominent, especially in magazine advertisements, young women see this as the ideal body type. In aiming for this type of body many women develop eating disorders such as anorexia and bulimia. **Session C, Tower Room**

COLLEGE OF BUSINESS

Department of Finance and Computer Information Systems

Susan L. Johnson — Professor Juan Esteve, Sponsor
Expert Systems: An Assessment of Their Use in Industry. Expert systems are computer programs that simulate human reasoning. Developed in the early 1970's by scientists studying artificial intelligence, today they represent an innovative approach to decision-making in industry. This presentation will overview expert systems, explain their evolution and give examples of use. Finally, the student will discuss her own experience in designing a medical expert system that evaluates symptoms of an incoming patient with chest pain and provides possible diagnoses. **Session C, Alumni Room**

Marcel Neff — Professor Nesa Wu, Sponsor
An Approach to Resort Maintenance Management. In this presentation I will discuss possible ways of optimizing the organization of maintenance management in a vacation resort. Based on my findings at one selected resort, I will identify possible management problems, analyze them according to established operations principles and provide a plan to implement organizational and managerial improvement. **Session B, Reception Room**

Department of Marketing

Benjamin Anderson — Professor Roger Peterson, Sponsor

The Japanese Distribution System. The Japanese distribution system as it relates to manufacturers, wholesalers and retailers is characterized by highly controlled channels, large conglomerates with substantial cross holdings and mutual interests and fierce loyalty. Those ingredients add up to a very difficult market environment for foreign goods manufacturers to penetrate and succeed in. This study examines the distribution system, its components, the difficulty faced by foreign firms and the overall system as it is evolving. **Session B, Reception Room**

COLLEGE OF EDUCATION

Department of Health, Physical Education, Recreation and Dance

Ryan James Anderson and Chris H. Hummel — Professor Marisa A. Miller, Sponsor

Emergency Plan of Action for Athletic Professionals. All personnel involved with collegiate athletics need to have adequate knowledge of the protocol necessary to properly deal with athletic injury care and assessment at various competition and practice sites. To bolster such actions, an emergency plan such as this should be premeditated and effective before the start of the athletic season so that all of those involved know their role in the plan. **Session A, Intermedia Gallery**

Amber Clark — Professor Suzanne Zelnik, Sponsor
Lindy Rock and Aquarian Night. "Lindy Rock" was conceived as

a period of east coast swing, set to the 1955 hit, "Rock Around the Clock". It is choreographed in formation, with recurring Lindy timing to match the song's recurring quarternote motif. This piece is performed by dancers from the Physical Education area: Karen Addair, Amber Gilvert, Stephanie Maday, Shannon Mosier, Jeffrey Nicholas, Erik Schark, Shannon Smith, Jasson Sonnenberg and Mark Stucky. "Aquarian Night", performed by Amber Clark and Tim O'Donnell is a cabaret night club two-step set to Enigma's "Return to Innocence". The choreography is based on repetitive circular motion and driven by a sense of continual flow, reflecting the music's rhythmic energy. **Session A, Salon**

WENDY LONGMIRE-DAVIS — Dance Program, Professor Joann McNamara, Sponsor
Southern Lullaby. Choreographed by Wendy Racquel Longmire-Davis, Southern Lullaby combines dance and text inspired by the spirit of love that touches us all. From the Dance program, Wanjiru Kamuyu and Jakika J. Sessor will perform this piece. **Session A, Salon**

KRISTEN REBELEIN — Professor Marisa A. Miller, Sponsor
Concussions in Sport and Daily Activities. This presentation will focus on the mechanisms and signs and symptoms of head injuries, specifically concussions. Further considerations will include the proper medical care required as well as the criteria for return to activities. **Session A, Intermedia Gallery**

NAOMI WHITE — Professor Jennifer M. Beller, Sponsor
A.R.E.T.E.: Athletes Reaching Excellence Through Ethics. This project's purpose is to develop a model to reduce moral callousness and increase values of respect, honor, sportsmanship, and personal excellence through high school educational athletics. This model involves teams, their respective coaches, administrations, officials, and parents. It is presented in three parts: 1) dynamic, interactive workshop on competition/winning, 2) athlete implementation of identified strategies, and 3) assessment of program effectiveness. **Session C, Alumni Room**

Department of Special Education

SHELLY NEWMAN — Professor M. Lake, Sponsor
Parental Awareness of Resources for Their Children with Special Needs. A study and survey were conducted of parental awareness of special education and special education laws established to provide services and protect the rights of their children with special needs. The survey revealed critical areas of concern for parents, including awareness of their children being "different," formal identification of disability, the Individualized Education Plan process, collaboration among general and special educators, and the concept of self-advocacy. **Session A, Main Lounge**

LYDIA TACKETT — Professor Sandra McClennen, Sponsor
Uses of Play in Early Childhood Special Education. This presentation examines uses for play in early childhood special education as it exists in the literature as well as in local classrooms. The research supporting play as a learning tool will be presented, as will results from a survey examining how often play occurs in local classrooms. A videotape that shows ways to teach play and teach through play, made in local classrooms by the presenter, will be viewed and discussed. **Session A, Main Lounge**

Department of Teacher Education

STACY M. AVERITT — Professor Thomas Gwaltney, Sponsor
How to Survive Student Teaching. I am preparing a book giving future student teachers advice pertaining to protocols, procedures and activities in student teaching from the student's point of view. I am surveying other student teachers as well as providing anecdotal narrative from my own experiences. **Session B, Gallery II**

JULIE E. BLACK — Professor Thomas Gwaltney, Sponsor
An Analysis of Benefits of Co-Curricular Activities. This presentation will focus on an analysis of the benefits of co-curricular activities to children in kindergarten through twelfth grade. The questions of why co-curricular activities are beneficial, who participates, and what encourages students to participate in co-curricular activities will be addressed. Additional topics will include a comparison of participants and non-participants and effects of participation on social development, behavior, and academics. **Session C, Gallery I**

SHERILL D. CACHIA — Professor Elizabeth Johnson, Sponsor
Teaching the Concept of Community and Bringing Cultural Awareness Through Your Neighborhood Supermarket. This unit plan was designed to give all learners the opportunity for academic achievement and to promote inter-group harmony and pluralism. The neighborhood supermarket is of great value for everyone of every race and culture. Informing students that ethnic cultures are diverse in their ways of thinking and actions allows students to learn to accept all cultures and races. Teaching this empowers students to think from a multicultural rather than a monocultural perspective. **Session B, Gallery II**

SUSAN LAURA NISCH — Professor Elizabeth Johnson, Sponsor
Coming to America...Are We Welcome? I have chosen to direct attention to the years of immigration that concern Ellis Island. These are the years 1882-1954. This period is notable for the large number of people who immigrated to this country, the growing pains the United States experienced, the contributions made by its newest residents and the prejudice and restrictive laws which followed. **Session B, Gallery II**

LELA R. STECH — Professor Elizabeth Johnson, Sponsor
Grandparents, A Multicultural Plan. This theme was chosen because of the apparent decreasing respect for the elderly we are witnessing in our community. My desire was to create a teaching unit that would help students understand the significance of grandparents and the elderly. Other factors that influenced my decision were the prime opportunity to involve the community and the wealth of knowledge the students could gain from each other. Authentic assessment was used to ensure the success of all students. **Session B, Gallery II**

LINDA WILLMAN — Professor Thomas Gwaltney, Sponsor
Interdisciplinary Teaching in the Middle Schools. This presentation will focus on the creation and implementation of an interdisciplinary teaching program in a middle school setting. Consideration will be given to the educational comparison between interdisciplinary school and noninterdisciplinary school settings. It will also include an emphasis on the benefits of social interactions between teachers and students in this type of setting. **Session B, Gallery II**

COLLEGE OF HEALTH AND HUMAN SERVICES

Department of Associated Health Professions

ALLISON JUDE STACHAK — Professor Judith Olson, Sponsor

Kangaroo Care as an Option for the Occupational Therapist Working in the Newborn Intensive Care Unit. An occupational therapist is challenged to provide service that is appropriate to the needs of babies and their families within the context of the Newborn Intensive Care Unit (NICU). Kangaroo Care is a technique that should be considered for use in the NICU to provide opportunities for sensory integration and attachment. This paper uses a case study to describe the technique and its benefits to infants and their families. **Session B, Gallery I**

LAURIE WATERLOO — Professor Elizabeth Francis-Connolly, Sponsor

Musical Accompaniment to Therapy. The potential for using musical activities in pediatric occupational therapy was investigated. A preliminary study of 15 children without disabilities was conducted. Music was observed to stimulate movement and imaginative thinking. A second study was conducted with seven children with special education needs. These children participated in a pre-writing activity and a perceptual motor activity. The addition of music corresponded with increased attention span and increased positive affect. These results are discussed with suggestions for use in occupational therapy practice. **Session C, Intermedia Gallery**

Department of Nursing

THOMAS BERRY, JENNIFER BASTIN, ALFREDA GRAY, AIMEE KNERR, KIMBERLY SMEYERS, CHRISTINE WAGNER, and VINCE ZUELLIG — Professor Linda Berry, Sponsor
Homelessness: A Challenge for Nursing. The presentation identifies specific vulnerability to homelessness among various

groups in the population and seeks to explain why some groups are more vulnerable than others. The paper also evaluates actual and potential barriers to the attainment and maintenance of health for both homeless individuals and homeless families. **Session C, Tower Room**

COLLEGE OF TECHNOLOGY

Department of Interdisciplinary Technology

RYAN SMITH — Professor Timothy Doyle, Sponsor

Creation of Aviation Alumni Association. This project documents the creation of the Aviation Alumni Association. In affiliation with aviation management graduates and aviation related professionals, the Association will create a network of information and opportunities. The Aviation Alumni Association will reunite past aviation program graduates with the current undergraduate program, and will recruit future program candidates. This project will thus promote an ongoing relationship of benefit to the aviation program, to its graduates, and to the University. **Session B, Alumni Room**

NATHAN STUTLER — Professor Taki Anagnostou, Sponsor

Prohesion Study: The Corrosion Differences of Five Different Metals. A presentation of the results of a study that was conducted during the fall of 1995. The presentation has three parts: 1) a background in accelerated weathering and corrosion, 2) the parameters under which the project was set up, and 3) analysis and presentation of the panels that were tested. **Session B, Alumni Room**

SCOTT C. TALLMADGE — Professor Gerald Lawver, Sponsor

Developing Visually Dynamic Emergency Plans for Public Safety Agencies. This presentation will provide an overview for preparing operating procedures and emergency operations plans for public safety agencies. Using the Detroit Water and Sewerage Department's Lake Huron Water Treatment Plant as a model, the presentation will include: 1) Planning, 2) Information Resources, 3) Visual Layout, and 4) Color Application. **Session B, Alumni Room**

PLANNING COMMITTEE

SYMPOSIUM XVI Dennis Beagen, Chair Wendy Kivi, Event Coordinator

<u>Department</u>	<u>Committee Member</u>
African American Studies	Ronald Woods
Art	Ellen Schwartz
Biology	Robert Winning
Chemistry	Arthur Howard
Computer Science	Michael Zeiger
Economics	Abdullah Dewan
English Language and Literature	Bernard Miller
Foreign Languages and Bilingual Studies	Sandy Dugan
Geography and Geology	Carl Ojala
History and Philosophy	Michael Carlsen-Jones
Honors Program	Karen Walker
Mathematics	Bette Warren
Music	Marilyn Saker
Physics and Astronomy	Wade Shen
Political Science	Robert Grady
Psychology	Dennis Delprato
Sociology, Anthropology, and Criminology	Ira Wasserman
Women's Studies Program	Margaret Crouch
College of Education	Thomas Gwaltney
College of Education	Jerry Ricciardo
College of Health and Human Services	Judith Olson
College of Technology	Paul Kuwik

COLLEGE OF ARTS & SCIENCES

Barry Fish, Dean
Ellene Contis, Acting Associate Dean
James Waltz, Acting Associate Dean
Velma G. Clarke, Administrative Associate
Dawn A. Clark, Administrative Secretary
Jill Cochran, Senior Secretary

DEPARTMENT

DEPARTMENT HEAD

African American Studies

Ronald Woods

Art

Roy Johnston

Biology

Douglas Shapiro

Chemistry

Judith Levy

Communication and Theatre Arts

Dennis Beagen

Computer Science

George Haynam

Economics

Raouf Hanna

English Language and Literature

Marcia A. Dalbey

Foreign Languages and Bilingual Studies

Steven Kirby

Geography and Geology

Andrew Nazzaro

History and Philosophy

Margot Duley

Mathematics

Don Lick

Music

Gordon McQuere

Physics and Astronomy

Dan Trochet

Political Science

Edward Sidlow

Psychology

Ken Rusiniak

Sociology, Anthropology, and Criminology

Gregg Barak

Women's Studies Program

Rebecca Martusewicz

Honors Program

William Miller

RODNEY E. SLATER

Currently Administrator of the Federal Highway Administration, Rodney E. Slater is a proud alum of Eastern Michigan University. After earning a B.S. in Political Science and Communication from EMU in 1977, Mr. Slater obtained a J.D. degree from the University of Arkansas School of Law in 1980.

From that time until his present appointment, Rod Slater has held a series of public service positions in Arkansas including: Assistant Attorney General (1980-1982), Special Assistant to the Governor for Community and Minority Affairs (1983-1985), Executive Assistant to the Governor for Economic and Community Programs (1985-1987), and Member and in 1992-1993 President of the Arkansas State Highway Commission (1987-1993). He also served higher education as Director of Governmental Relations at Arkansas State University in Jonesboro (1987-1992). In the political arena, he was Deputy Campaign Manager for Bill Clinton's 1982 and 1984 governor campaigns and for his 1992 presidential election.

Slater, 41, came to Eastern Michigan on a football scholarship in 1973, becoming team captain and receiving the Rynearson Grid-Scholar Award in 1977 and all-MAC player recognition. His academic distinctions include membership on EMU's 1977 National Championship Forensics Team and receipt of an EMU Top Ten Student Award in that same year.

Since leaving EMU, Slater has received an impressive list of awards including: EMU Young Alumnus Award (1987), National Bar Association President's Award (1989), Arkansas Public Transportation Advocate Award (1990) and W. Harold Flowers Law Society Lawyer-Citizen Award (1990). For his accomplishments, he has been listed in *Who's Who in American Colleges* and *Who's Who among Black Americans*, and honored by selection as an Outstanding Young Man in America (1986), an Outstanding Young Arkansan (1990), and an "Arkansas Hero" by *Arkansas Times* (1990).

Rodney Slater's achievements and success generate justifiable pride among EMU's alumni, students, and friends. His notable academic accomplishments and his distinguished career of public service exhibit the excellence promoted at the Undergraduate Symposium. We are delighted to welcome this eminent alum back to EMU as this year's featured Symposium speaker.



