Arts & Sciences 99

A Celebration of Research & Creative Activities

April 5 through April 23, 1999
A Celebration of Research and Creative Activities

Overview

This month long event was designed to showcase the outstanding achievements of our faculty and students that make us a "Student Centered Research Institution." The College of Arts & Sciences has played a major role in the development of Western Michigan University as a research institution. With about half of the faculty in the University, more than 70% of the federal research funding is attributable to A&S researchers. Currently A&S faculty are supported by more than $10 million per year in external funding. But research funding alone does not indicate the breadth of research and creative activities in the College. During the month of April, the College of Arts and Sciences is proud to recognize some of its best and brightest. They are valuable assets to the College, to the University, and to the community at large.

Student Research

The College of Arts and Sciences is home to a tremendous wealth of creative talent, not only that of its faculty but that of its students as well. Supported by CAS Undergraduate Research and Creative Activities Awards, by Lee Honors College Awards, or by their respective departments, both graduate students and undergraduates perform the many kinds of inquisitive research that advances any given field of endeavor.

From literature to biology, from sociology to nuclear physics, students from the College of Arts and Sciences join with faculty to pursue a wide variety of research projects. These activities are of great importance, for they both further students' own intellectual development and, in one way or another, help the rest of us understand the world around us.

CAS Undergraduate Research and Creative Activities Awardees

Dustin Michael Anderson, Political Science (Major) & Philosophy (Minor)
Faculty Mentor: Dr. Peter Renstrom, Political Science
Abortion and Rights Theory

Daniele Bortolotti, Physics and Mathematics (Majors) & Philosophy (Minor)
Faculty Mentor: Dr. Clement Burns, Physics
Preparation of Samples of Alkali Metals in Liquid Ammonia for Inelastic X-Ray Scattering Measurements

David John Bradshaw, Psychology (Major) & Philosophy (Minor)
Faculty Mentor: Dr. Richard Malott, Psychology
Teaching Tutors Error Discrimination to Increase the Correct Implementation of Discrete Trial Training Procedures

Anthony Buccellato, Geosciences (Major) & Chemistry (Minor)
Faculty Mentor: Dr. George Guthrie, Geosciences
Oxidation-Reduction Processes in Minerals
Chin Bong Chan, Telecommunication (Major) & Economics and Asian Studies (Minors)
Faculty Mentor: Dr. Shirley VanHooven, Communication
*Telecommunication Management: Strategies and Decisionmaking, Broadcasting, Cable & Telephony*

Anthony Cimini, Biomedical Sciences (Major) & Chemistry (Minor)
Faculty Mentor: Dr. Jay Means, Chemistry & Biological Sciences
*Mutating Effects of Alkylating Agents on the P 53 Gene*

Matthew P. DeVries, Biomedical Sciences (Major) & Chemistry (Minor)
Faculty Mentor: Dr. John Spitsbergen, Biological Sciences
*The Role of Nerve Growth Factor in the Development of Hypertension*

Joseph W. Duris, Biomedical Sciences (Major) & Chemistry (Minor)
Faculty Mentor: Dr. Silvia Rossbach, Biological Sciences
*Analysis of Microbial Communities at the Carson City Refinery Site*

Britt Elliott, English (Major) & History (Minor)
Faculty Mentor: Dr. Jocelyn Steinke, English
*Female Scientists in Popular Film: Contact, a Case Study*

Aaron C. Ford, Biology (Major) & Chemistry (Minor)
Faculty Mentor: Dr. William Jackson, Biological Sciences
*Characterization of Adrenergic Receptors on Arteriolar Muscle Cells (Spring/Summer 1998)*
*Norepinephrine-Induced Contraction of Hamster Cremaster Muscle Cells (Winter 1999)*

Gina Marie Garza, Mathematics (Ed Major) & Physics (Minor)
Faculty Mentor: Dr. Gary Chartrand, Mathematics & Statistics
*A Study of an Important Class of Graphs in Graph Theory*

Kyle Haelewyn, Biomedical Sciences (Major) & Chemistry (Minor)
Faculty Mentor: Dr. Silvia Rossbach, Biological Sciences
*Oxygen and Metal Stress Response in Six Mutant Strains of P. fluorescens*

Rachel Herp, English & French (Majors)
Faculty Mentor: Dr. Jil Larson, English
*The Ethics of Belief in Post-Darwinian British Literature*

Jennifer Hook, Sociology and Women’s Studies (Majors) & Political Science (Minor)
Faculty Mentor: Dr. Paula Brush, Sociology
*Gender Difference in Student Organization Participation Among College Students*

Fenimore Jeffrey A. Johnson, Sociology (Major) & Psychology (Minor)
Faculty Mentor: Dr. Thomas Ford, Sociology
*The Effects of Sexist Humor on Social Perception*

Michael Jozwiak, Biomedical Sciences (Major) & Chemistry (Minor)
Faculty Mentor: Dr. Gyula Ficsor, Biological Sciences
Mechanism of Cadmium-Induced Inhibition of DNA Repair

Justin Kroupa, Biological Sciences (Major) & Chemistry and Computer Sciences (Minors)
Faculty Mentor: Dr. David Karowe, Biological Sciences
The Possible Role of Multiple Niche Polymorphism in Maintaining Genetic Variation for Glucosinolate Levels in Brassica Nigra

Peter J. Lawson, Anthropology & English (Majors)
Faculty Mentor: Dr. Vincent Lyon-Calio, Anthropology
Youth Identities and Travel Narratives: An Exploration of Physical and Cultural Space

Debora Mulder-Kimble, Psychology (Major) & Biology and Chemistry (Minors)
Faculty Mentor: Dr. John Spitsbergen, Biological Sciences
Expression of Glial-Derived Neurotrophic Factor in Cultured Glial Cells Isolated from Adult Rats

Raluca Muntean, Mathematics (Major) & Statistics (Minor)
Faculty Mentor: Dr. John Petro, Mathematics & Statistics
Generalization of a Length Inequality

Pui San Betty Ng, Telecommunication (Major) & Asian Studies (Minor)
Faculty Mentor: Dr. Shirley VanHoeven, Communication
Telecommunication Management: Strategies and Decisionmaking, Broadcasting, Cable & Telephony

Jeanine M. Plowman, Psychology (Major) & Business Management and Communications (Minors)
Faculty Mentor: Dr. John Austin, Psychology
Improving Health Care Services in a Nursing Home

Tia M. Pohl, Biological Sciences (Major) & Chemistry and Environmental Studies (Minors)
Faculty Mentor: Dr. David Karowe, Biological Sciences
Potential Constraints on Adaptive Evolution: A Test with Glucosinolate Content of Brassica Nigra

Jonathan C. Reid, English and History (Majors) & Social Science (Minor)
Faculty Mentor: Dr. Edward Jayne, English
Passing Prometheus’s Torch: A Study of the Religious Critiques of Ludwig Feuerbach, Sigmund Freud, and Friedrich Nietzsche

Robert J. Rix, Philosophy (Major) & History (Minor)
Faculty Mentor: Dr. William A. Ritchie, Political Science
David Hume and Robert Nozick: Justice and Property

Heather Rushcamp, Anthropology (Major) & History (Minor)
Faculty Mentor: Dr. Robert L. Anemone, Anthropology
Taxonomy, Chronology, and Ecology of Eocene Primates from Southwestern Wyoming

Marleah Russo, Biomedical Sciences (Major) & Chemistry (Minor)
Faculty Mentor: Dr. Christine A. Byrd, Biological Sciences
An Investigation into Mitral Cells and Their Respective Morphology in the Olfactory Bulb of Zebrafish (Winter 1999)

Neurogenesis in the Olfactory Bulb of Adult Zebrafish (Fall 1998)

Josh S. Sharp, Biomedical Sciences (Major) & Chemistry (Minor)
Faculty Mentor: Dr. Silvia Rossbach, Biological Sciences
Heavy Metal and Antibiotic Resistance of Fluorescent Pseudomonads Isolated from Polluted Soil

Natascha Shinkel, General Mathematics (Major) & Dance (Minor)
Faculty Mentor: Dr. Gary Chartrand, Mathematics and Statistics
A Study of an Important Class of Graphs in Graph Theory

Emily A. Sizer, Biological Sciences (Major) & Chemistry (Minor)
Faculty Mentor: Dr. Gyula Ficsor, Biological Sciences
Does Cadmium Enhance the SOS-Inducing Activity of Mutagens?

Paul Lawrence Spata, Student Planned Digital Audio (Major) & Mathematics, Computer Science, and Music (Minors)
Faculty Mentors: Dr. Clement Burns, Physics (Fall 1998)
Dr. Ben Pinkowski, Computer Science (Spring/Summer 1998)
Digital Modeling and Computer Simulation of Acoustics (Fall 1998)
Physical Modeling and Digital Synthesis of Acoustic Waveforms (Spring/Summer 1998)

Megan Britt Utke, Psychology & Sociology (Majors)
Faculty Mentor: Dr. Lester Wright, Psychology
An Examination of the Relationship of Gender Role and Sexual Orientation to Sexual Fantasy and Sexual Behavior

Outstanding Graduate Students

The College of Arts & Sciences and the following Departments would like to recognize outstanding Graduate Students and their faculty mentors:

Anthropology
Heather Rae (Master’s Degree Candidate); Departmental Mentor: Dr. Erika Loeffler

Biological Sciences
Mini Paulose (Doctoral Degree Candidate); Departmental Mentor: Dr. Karim Essani
Angela Spickard (Master’s Degree Candidate); Departmental Mentor: Dr. David Karowe

Chemistry
Kristi Ostling (Master’s Degree Candidate); Departmental Mentor: Dr. Steven Bertman
Masaki Sakakibara (Master’s Degree Candidate); Departmental Mentor: Dr. Susan Burns

Comparative Religion
Amy Slagle (Master’s Degree Candidate); Departmental Mentor: Dr. Brian Wilson
Computer Science
Yuqiang Guan (Doctoral Degree Candidate); Departmental Mentor: Dr. Kenneth Williams
Andrew Oswald (Master’s Degree Candidate); Departmental Mentor: Dr. Elise deDoncker, & Faculty Mentor (Philosophy): Dr. Arthur Falk
Rodger Zanny (Doctoral Degree Candidate); Departmental Mentors: Dr. Elise deDoncker & Dr. Ajay Gupta

Economics
Michael Mamo (Doctoral Degree Candidate); Departmental Mentor: Dr. Wei-Chiao Huang
Ioana Mazare (Doctoral Degree Candidate); Departmental Mentor: Dr. Annette Brown

English
Kathleen McGooley (Doctoral Degree Candidate); Departmental Mentor: Dr. Herbert Scott
Jennifer Carpentier (Doctoral Degree Candidate); Departmental Mentor: Dr. Pat Gill
Laura Redman (Master’s Degree Candidate); Departmental Mentor: Dr. Georgina Hill

Foreign Languages & Literatures
Rose Brougham (Master’s Degree Candidate); Departmental Mentor: Dr. Irma Lopez

Geography
Philip Liberman; Departmental Mentor: Dr. Joseph Stoltman
Theresa Mau-Crimmins; Departmental Mentor: Dr. David Lemberg

Geosciences
D. Dale Werkema (Doctoral Degree Candidate); Departmental Mentor: Dr. William Sauck
Chris Whisner (Master’s Degree Awarded); Departmental Mentor: Dr. Chris Schmidt

Philosophy
Kristen DeKam (Master’s Degree Candidate); Departmental Mentor: Dr. Arthur Falk
Ming Yang (Master’s Degree Candidate); Departmental Mentor; Dr. Arthur Falk

Physics
Sophie Canton (Doctoral Degree Candidate); Departmental Mentor: Dr. Nora Berrah
Andra Petrean (Doctoral Degree Candidate); Departmental Mentor: Dr. Lisa Paulius
Simeon Simenov (Doctoral Degree Candidate); Departmental Mentor: Dr. Arthur McGurn

Political Science
Karl Hokenmaier (Doctoral Degree Candidate); Departmental Mentor: Dr. Gunther Hega
Jason Jagemann (Doctoral Degree Candidate); Departmental Mentor: Dr. Ashlyn Kuernsten
Elena Koumna (Masters Degree Candidate); Departmental Mentor: Dr. James Butterfield

Psychology
Sean Laraway (Master’s Degree Candidate); Departmental Mentor: Dr. Alan Poling
Margo Adams Larsen (Doctoral Degree Candidate); Departmental Mentor: Dr. Galen Alessi
Pam Radford (Specialist Degree Candidate); Departmental Mentor: Dr. Ruth Ervin
Public Affairs and Administration
Michael L. Hughes (Master’s Degree Candidate); Departmental Mentor: Dr. Ralph Clark Chandler
Cherise E. Brandell (Doctoral Degree Candidate); Departmental Mentor: Dr. Ralph Clark Chandler

Science Studies
David Nette (Master’s Degree Candidate); Departmental Mentor: Dr. Janice Gobert
Amy Oliver (Master’s Degree Candidate); Departmental Mentor: Amy Oliver is working independently
Keith Schramm (Doctoral Degree Candidate); Departmental Mentor: Dr. Robert Hafner

Sociology
Edith Fisher (Master’s Degree Candidate); Departmental Mentor: Dr. Susan Caringella-MacDonald
Pete Stevenson (Doctoral Degree Candidate); Departmental Mentor: Dr. Ronald Kramer

Departmental Events Week: April 5 through April 9

Departments will hold the following special events to recognize faculty and student research and creative activities. Special announcements recognizing student achievements are also included below.

Biological Sciences
The Department will have posters set up in the hallway of Wood Hall. Please call the Department of Biological Sciences at 387-5625 for further information.

Chemistry
The Department will have posters set up in the hallway of Wood Hall, just outside the Chemistry office suite, 3401 Wood Hall. Please call the Department of Chemistry at 387-2846 for further information.

Communication
The Department announces the following events for April 5, 1999:
• Noon, Brown and Gold Room, Bernhard Center: Induction of Charter Members of Eta Chapter of Lambda Pi Eta, the national undergraduate honor society.
• 5:00-7:00 p.m., Room 2217 Brown Hall: Graduate Student Reception.
Please call the Department of Communication at 387-3130 for further information.

Comparative Religion
The Department will host a lecture by Professor Lilinea Chitgopekar from the New Delhi University on April 5, 1999, at 3:30 p.m.
Please call the Department of Comparative Religion at 387-4391 for further information.

Economics
The Department proudly announces the following important events:
April 7, 1999.
• Noon, Room 2302 Friedmann Hall: Brown-bag lunch for faculty and graduate students with
Lawrence M. Kahn, Professor of Labor Economics and Collective Bargaining, New York State School of Industrial and Labor Relations, Cornell University.

• 3:00 p.m., Room 3508 Knass Hall: Seminar by Dr. Kahn, “A Level Playing Field? Sports and Discrimination” (part of the Economics Department series, “The Economics of Sports: Winners and Losers”).

• 7:30 p.m.: After-dinner reception with Dr. Kahn at the home of an Economics faculty member for the faculty and students of Economics.

April 8, 1999.

• 5:00 p.m., Waldos: Several faculty members in the department of Economics will informally present research projects that they are currently working on. This will be organized under the auspices of the Economic Students Association.

April 9, 1999.

• 3:00 p.m., Room 2212 Dunbar Hall: Seminar for faculty and graduate students by Huizhong Zhou, “Impacts of Interjurisdictional Competition on the Economy: The Case of the Chinese Tobacco Industry.”

Please call the Department of Economics at 387-5535 for further information.

**English**

The Department will be having a Noon Forum on Thursday, April 8, 1999, entitled “Student Creativity: How ‘Student Work’ Becomes Professional.” It will feature current undergraduate student, Carla Anderson, who has had her academic work turned into a number of conference presentations and graduate student, Bonnie Campbell, whose fiction has won a national award. The Noon Forum, highlighting research and publication by students, will take place on April 8, 1999, from noon to 1:00 p.m., at the English Center in Brown Hall. Please call the Department of English at 387-2572 for further information.

**Foreign Languages & Literatures**

The Department will have three events to feature student research:

April 5, 1999

• 4:00 p.m., Room 4421 Brown Hall Library: presentation by Kendra Gates (undergraduate French student) entitled “Iroquois Women: A Reconstruction Through French Primary Sources.”

April 8, 1999

• 12:00 noon, Room 4421 Brown Hall Library: panel discussion by undergraduate students in French and Spanish entitled “Investigation in Business Culture Abroad.”

April 13, 1999

• 7:30 p.m., Tenth Floor of Sprau Tower: slides and presentation by Rebecca Verreau (undergraduate Spanish student) entitled “Politics and Graffiti in the Basque Country and Catalonia.”

Please call the Department of Foreign Languages & Literatures at 387-3023 for further information.

**Geography**

The Department will host the Annual Geography Awards Banquet (for Geography students and faculty) on Tuesday, April 6, 1999, from 6:00 p.m. to 10:00 p.m. in the President’s Dining Room at the Bernhard Center.

The Department will conduct tours of its labs during the College-Wide Events week. Please see the College-Wide Events section for further information. Please call the Department of Geography at 387-
3410 for further information.

**Geosciences**
The Department will host a departmental research forum on April 7, 1999. The coordinator for the departmental research forum is Dr. Daniel Cassidy. Please call Dr. Cassidy at 387-5343 for further information.

**Mathematics & Statistics**
The Department of Mathematics & Statistics Awards Day Ceremony is scheduled for 12:00 noon on Saturday, April 10, 1999. Please call the Department of Mathematics & Statistics at 387-4512 for further information.

**Physics**
The Department will hold an awards ceremony to honor outstanding graduate teaching assistants, and to honor outstanding students in our undergraduate classes.

The Department will also hold tours of the accelerator lab and of the materials research laboratories. Please call the Department of Physics at 387-4940 for further information.

**Political Science**
During the week of April 5 through 9, 1999, the Department of Political Science will have on display examples of completed and ongoing research by faculty and graduate and undergraduate students. The display will include posters by Dr. Kevin Corder, by graduate student, Karl Hokenmaier, and by three undergraduate students:

- Rebecca Verreau – “A Comparison of the Basque and Catalanian Nationalist Movements in Spain: Class Divisions and Their Manifestations in Political Graffiti”
- Anne McGee – “Mexico’s Changing Party Politics”
- Sara Woodward – “U.S. Foreign Policy Toward China’s Admission to the World Trade Organization”

The research proposals and various photographs will be included to show the wide-ranging possibilities in undergraduate research. All of these examples of research will be on display in the Political Science Library located in Room 3301 Friedmann Hall from 8:00 a.m. to 5:00 p.m. daily.

Please call the Department of Political Science at 387-5680 for further information.

**Psychology**
The Department will conduct tours of research labs during the week of April 5 through 9, 1999. Information regarding the tours will be posted in Wood Hall; the main office is located in Room 3732 Wood Hall, and the phone number is 387-4500.

Dr. Paul Brown will speak on April 9, 1999, at 3:30 p.m. Please call the main office at 387-4500 for further information.

**Sociology**
The Department will display publications of graduate students and faculty including books, articles published in refereed journals, book reviews, and project reports. Please call the Department for the location of the display. Please call the Department of Sociology at 387-5270 for further information.
Wood Hall:
1st Floor

Wood hall Map, left side faces West Michigan (main entrance to Wood)
Departments will have posters located outside the following rooms in Wood.

Biology: 1718
Chemistry: 1728
Computer Science: 1902
Geography: 1215
Geosciences: 1214
Math & Stats: 1710
Physics: 1710
Psychology: 1509
Science Studies: 1413
College-Wide Events Week: April 12 through April 16

The hallways of Wood Hall will be decorated with faculty and student displays of their research and creative activities. The following departments have been kind enough to provide the following information and special announcements about what their displays will likely include. Also provided are maps of poster locations in Wood Hall (see pages 9 and 12). For general tours of Wood Hall and Haenicke Hall, meet MWF at 3 p.m. in the lobby of Wood Hall.

**Biological Sciences**
In addition to the posters presented, one of particular interest will be displayed from a recent neuroscience conference.

Tours through several research labs will take place during April 12 through 16 and April 23. Please call the Department of Biological Sciences at 387-5625 for further information.

**Chemistry**
The Department will display posters concerning the following major research programs in the Department: DOE Environmental Toxicology Program, CREST Program, IGERT Program, NSF REU Program, and the PROPHET Program. Please call the Department of Chemistry at 387-2846 for further information.

**Computer Science**
The following individuals have agreed to be available at their Wood Hall display to discuss their research:

- **Faculty:**
  - Elise deDoncker: 2:00-3:00 Tuesday, April 13
  - 2:00-3:00 Thursday, April 15
  - Ken Williams: 1:00-2:00 Tuesday, April 13
  - Sant Pathak: 3:00-4:00 Thursday, April 15
  - Karlis Kaugars: 3:30-4:00 Monday, April 12
  - 3:30-4:00 Wednesday, April 14

- **Graduate Students:**
  - Yuliang Guan: 11:00-12:00 Tuesday, April 13
  - Rodger Zanny: 2:00-3:00 Tuesday, April 13

Please call the Department of Computer Science at 387-5645 for further information.

**Economics**
The Department of Economics shall display the following in Wood Hall:
- A poster display of a paper prepared by Michael Mamo (Ph.D. student) and Wei-Chiao Huang (Professor), titled "Frontier Production Function Analysis of Efficiency in Public Schools: The Case of Selected Schools in Michigan."
- A poster display of a paper prepared by Ioana Mazare (Ph.D. student) and Annette Brown (Professor), titled "Manager Turnover and Restructuring in Romanian Enterprises."
- A poster display of a paper prepared by Rick Krass (undergraduate student) on the financial difficul
ties in Brazil.
• A poster display of a paper prepared by Robert Gonchoroff (undergraduate student) on the economic realities and consequences of the Euro.
Please call the Department of Economics at 387-5535 for further information.

Foreign Languages & Literatures
The Department will be visited by Venezuelan novelist Denzil Romero, who will attend Spanish classes and give several lectures during the College-Wide Events Week, April 12 through 16, 1999. Please call the Department of Foreign Languages & Literatures at 387-3001 for further information.

Geography
The Department will conduct tours of its labs on Monday, April 12, 1999, from 3:00 p.m. to 5:00 p.m.
• Meet in Room 2210 Wood Hall. The lab tour will be a presentation of Weather Related Graphics.
• Meet in Room 2119 Wood Hall. The lab tour will be a presentation of Geographic Information System.
Please call the Department of Geography at 387-3410 for further information.

Psychology
Poster sessions will take place in Wood Hall:
• Monday, April 12, 1999, from 10:00 a.m. to 11:00 a.m.
• Friday, April 16, 1999, from 10:00 a.m. to 11:00 a.m.
Please call the Department of Psychology at 387-4500 for further information.

Sociology
The Department will prepare a poster presentation that highlights the research efforts of its undergraduate and graduate students. Please call the Department of Sociology at: 387-5270 for further information.

Dedication of Haenicke Hall: April 23 at 2 PM
Join the Board of Trustees for the official dedication of Haenicke Hall. Tours of Haenicke will be provided. Various demonstrations will take place in Haenicke Hall research laboratories.

For further information regarding the Departmental Events or the College-Wide Events, please call the following departments:

Anthropology: 387:3969
Asian & Middle Eastern Languages: 387-6241
Biological Sciences: 387-5625
Black Americana Studies: 387-2665
Chemistry: 387-2846
Communication: 387-3130
Comparative Religion: 387-4391
Computer Science: 387-5645
Economics: 387-5535
English: 387-2572
Foreign Languages & Literatures: 387-3023
Geography: 387-3410
Geosciences: 387-5485
History: 387-4650
Mathematics & Statistics: 387-4511
Medieval Institute: 387-8745
Philosophy: 387-4389
Physics: 387-4940
Political Science: 387-5681
Psychology: 387-4500
Public Affairs & Administration: 387-8930
Science Studies: 387-5398
Sociology: 387-5270
Women’s Studies: 387-2665
Wood Hall Second Floor

Wood Hall 2nd floor, main entrance to left of image. Numbers indicate the room location for departmental posters.

Communication: 2722
Comparative Religion: 2722
English: 2722
Philosophy: 2734
Asian & Middle Eastern Languages: 2734
Anthropology: 2722
Black Americana Studies: 2706 & 2740
Economics: 2708
History: 2708
Political Science: 2708
Sociology: 2708