



36th Annual ACCA Student Symposium

**Saturday, April 5, 2003
9:00 a.m. - 1:00 p.m.**

Associated Colleges of the Chicago Area (ACCA)

AURORA UNIVERSITY, BARAT COLLEGE, BENEDICTINE UNIVERSITY, CALUMET COLLEGE OF ST. JOSEPH, CONCORDIA UNIVERSITY, DOMINICAN UNIVERSITY, ELMHURST COLLEGE, JUDSON COLLEGE, LEWIS UNIVERSITY, NORTH CENTRAL COLLEGE, NORTH PARK UNIVERSITY, OLIVET NAZARENE UNIVERSITY, SAINT XAVIER UNIVERSITY, TRINITY CHRISTIAN COLLEGE, TRINITY INTERNATIONAL UNIVERSITY, UNIVERSITY OF SAINT FRANCIS, WHEATON COLLEGE

36th Annual ACCA Student Symposium



Saturday, April 5, 2003
9:00 a.m. - 1:00 p.m.

General Symposium Schedule

| | |
|-------------------------|---|
| 9:00 – 9:30 a.m. | Registration Frick Center Bluejay's Roost (coffee, lemonade, doughnuts, <i>etc.</i>) |
| 9:00 – 9:30 a.m. | Poster Set-Up Frick Center Bluejay's Roost |
| 9:30 – 9:45 a.m. | Opening Ceremony Frick Center Bluejay's Roost |
| 10:00 a.m. – 12:00 n. | Oral Paper Presentations Computer Science and Technology Center (CS), Old Main (OM), Schaible Science Center (SC)* (parallel sessions) |
| 11:30 a.m. – 12:30 p.m. | Poster Presenters at Their Posters Frick Center Bluejay's Roost |
| 12:10 p.m. | Pizza & Soft Drink Lunch (free) Frick Center Bluejay's Roost |

*Please see the included Campus Map for building locations.

36th Annual ACCA Student Symposium

Symposium Sessions

Abstracts are grouped by session in the Program.

| Division | Talk Number | Location |
|--|--|----------------------------------|
| Poster Session | POP-1 – POP-18 | Bluejay's Roost |
| Biology | BIO-A1 – BIO-A6 BIO-B1 – BIO-B6 BIO-C1 – BIO-C6 | CS303 CS305 CS314 |
| Chemistry | CHM-1 – CHM-6 | SC137 |
| Computer Science | CS-1 – CS-6 | CS112 |
| Mathematics | MAT-A1 – MAT-A6 MAT-B1 – MAT-B6 | OM209 OM307 |
| Psychology | PSY-A1 – PSY-A5 PSY-B1 – PSY-B6 PSY-C1 – PSY-C5 | OM105 OM108 OM008 |
| Psychology and Business & Economics | PBE-1 – PBE-6 | OM101 |
| Sociology | SOC-1 – SOC-6 | SC203 |

| Talk Number | Begins at |
|-------------|------------|
| 1 | 10:00 a.m. |
| 2 | 10:20 a.m. |
| 3 | 10:40 a.m. |
| 4 | 11:00 a.m. |
| 5 | 11:20 a.m. |
| 6 | 11:40 a.m. |

Poster Presentations

Frick Center, Bluejay's Roost
POP-1 – POP-18 (11:30 – 12:30)

POP-1 EXAMPLES OF SOCIAL STRATIFICATION THROUGHOUT AMERICAN SOCIETY

Ann Marie Bell
Benedictine University – Psychology

POP-2 POSITIVE & NEGATIVE ORIENTATION VS. MASSED AND DISTRIBUTED PRACTICE: DO THEY AFFECT RECALL

Laura Cole
St. Xavier University – Psychology

POP-3 DOES MONOCULAR VERSUS BINOCULAR VIEW EFFECT JUDGMENT ERROR IN MUELLER-LYER ILLUSION?

Sheila A. Corbett
St. Xavier University – Psychology

POP-4 REMEMBERING WORDS: DOES THE TYPE OF WORD AND CUE HAVE ANY EFFECT UPON RECALL?

Catherine Cozzi
Saint Xavier University – Psychology

POP-5 THE IMPORTANCE OF A COMPLETE UNDERSTANDING OF IDENTITY

Edna Dash
Elmhurst College – Psychology

POP-6 DO RELIGIOUS BELIEFS IMPACT PERSONAL HAPPINESS: A STUDY OF SOCIAL NETWORKS AND THEIR RELATIONSHIPS WITH RELIGIOUS BELIEFS AND CONTENTMENT

Sarah E. DeMarco and Aaron M. Samp
Lewis University – Psychology

Poster Presentations

(continued)

POP-7 THE RELATIONSHIP OF GENDER AND APPEARANCE OF VICTIM TO ALTRUISTIC BEHAVIOR

Timothy A. Griest, Sarah Augustine, and Jeffrey Gusick
Lewis University – Psychology

POP-8 THE EFFECT OF THIN MODELS ON THE SELF-IMAGE OF COLLEGE WOMEN

Abby Jambor
St. Xavier University – Psychology

POP-9 CONFORMITY AND GROUP SIZE: ROTC AND CIVILIAN STUDENTS

William E. Knor and Vanessa L. Peca
Lewis University – Psychology

POP-10 RELATIONSHIPS AMONG SELF-ESTEEM, LOCUS OF CONTROL, AND TEST ANXIETY OF COLLEGE STUDENTS

Michelle Lambe
Lewis University – Psychology

POP-11 SHOPPING IN A WHEELCHAIR: THE EFFECTS OF TYPE OF DRESS AND TYPE OF SHOPPER

Katherine M. Lueken and Laura Barrett
Aurora University – Psychology

POP-12 ERIKSON'S THEORY OF IDENTITY AND LATE ADOLESCENCE

Mariane Lund
Elmhurst College – Psychology

Poster Presentations

(continued)

POP-13 WHO IS MORE STRESSED? COMMUTERS OR CAMPUS RESIDENTS?

Michelle Molina

Aurora University – Psychology

POP-14 NOVEL METHODS FOR CANCER DIAGNOSIS/PROGNOSIS

Matthew Nitz

Wheaton College – Biology

POP-15 EXAMINING UNIVERSITY TESTING METHODS: COMPARING PREPARATORY TECHNIQUES, SKILL DEVELOPMENT AND RETENTION AMONG VARIOUS TESTING METHODS

Darin L. Pauley

Aurora University – Psychology

POP-16 FROM COMMITTED TO DISPOSABLE: A STUDY OF HOMES AND RELATIONSHIPS

Joni Priest

Judson College – Sociology

POP-17 GENDER DIFFERENCES IN COMPETITIVE SPORTS

Anne Kryszak and Alethia Williams

Lewis University – Psychology

POP-18 LAG EFFECT, REPETITION EFFECT AND THE ENCODING VARIABILITY HYPOTHESIS: LEARNING STRATEGIES AND THEIR EFFECTS ON FREE-RECALL AND CUED-RECALL

Kristin Yanikoski

Saint Xavier University – Psychology

Biology

Computer Science and Technology Center, Room 303
BIO-A1 – BIO-A6

10:00 BIO-A1 DNA KNOTTING AND VIRUSES

Kristin Bush
Benedictine University – Biology

10:20 BIO-A2 CARDIOVASCULAR RESPONSE TO MENTAL STRESS: THE EFFECT OF EXAM STRESS ON BLOOD PRESSURE AND HEART RATE

Denise Wood
Judson College – Biology

10:40 BIO-A3 EFFECTS OF IRON, SALINITY AND IODIDE ON OOGENESIS IN YOUNG GAMETOPHYTES OF THE BROWN ALGA *MACROCYSTIS PYRIFERA*

Molly Chambers and Melinda Coburn
Wheaton College – Biology

11:00 BIO-A4 THE EFFECT OF SALINITY AND MALE GAMETOPHYTE PRESENCE ON AGENIZES IN THE BROWN ALGA *MACROCYSTIS INTEGRIFOLIA*

Melinda Coburn and Molly Chambers
Wheaton College – Biology

11:20 BIO-A5 DEVELOPMENT OF WINGS IN *DROSOPHILA MELANOGASTER* IN RESPONSE TO TRIETHYLAMINE

Teresa J. Barker
Olivet Nazarene University – Biology

11:40 BIO-A6 THE EFFECTS OF SYNTHETIC MCSF PEPTIDE ON OSTEOCLAST DIFFERENTIATION & DEVELOPMENT

Jabeen A. Ahed
Benedictine University – Biology

Biology

Computer Science and Technology Center, Room 305
BIO-B1 – BIO-B6

**10:00 BIO-B1 AN EMERGENCY MEDICAL SERVICES
REVOLUTION – THE IMPLICATIONS OF THE DEVELOPMENT OF
BLOOD SUBSTITUTES ON THE TREATMENT OF THE TRAUMATIC
PATIENT IN THE PRE-HOSPITAL SETTING**

Karolina Mirowska
Dominican University – Biology

**10:20 BIO-B2 INTERNSHIP IN THE FIELD OF
OBSTETRICS/GYNECOLOGY**

Catherine Gursky
Dominican University – Biology

**10:40 BIO-B3 CLONING AND PRELIMINARY
CHARACTERIZATION OF POTENTIALLY USEFUL GENES IN THE
BACILLUS MEGATERIUM GENE BANK**

David Yates
Wheaton College – Biology

11:00 BIO-B4 MODELING THE ACTION POTENTIAL IN EXCEL

Jonathan Rink and Nathan Kucera
Benedictine University – Biology

11:20 BIO-B5 ISOLATION OF AN ONCOGENE IN FRUIT FLIES

Araceli Montalvo
Dominican University – Biology

**11:40 BIO-B6 DETERMINING THE GENOTYPES OF HUMAN ABO
BLOOD TYPES USING POLYMERASE CHAIN REACTION**

Christina Lindeman and Dustin Mann
Olivet Nazarene University – Biology

Biology

Computer Science and Technology Center, Room 314
BIO-C1 – BIO-C6

**10:00 BIO-C1 EFFECT OF CAFFEINE ON NERVOUS SYSTEM
PROPAGATION**

Shaun Daly and Michael Stankos
Benedictine University – Biology

**10:20 BIO-C2 TETRACYCLINE REGULATED PROTEIN KINASE
RNA REGULATOR**

Daniel Huang
Wheaton College – Biology

**10:40 BIO-C3 MCCUNE-ALBRIGHT SYNDROME: A YEAST
GENETIC MODEL**

Matthew Koster and Joshua Mitchell
Trinity Christian College – Biology

**11:00 BIO-C4 CLONING AND PRELIMINARY IDENTIFICATION
OF POTENTIALLY USEFUL GENES IN THE *BACILLUS MEGATERIUM***

Daniel Huang and Jonathan Lewis
Wheaton College – Biology

**11:20 BIO-C5 INTERNSHIP IN THE FIELD OF GENERAL
SURGERY**

Brian W. Zator
Dominican University – Biology

**11:40 BIO-C6 INTERNSHIP IN THE FIELD OF PEDIATRIC
OTOLARYNGOLOGY AND GENERAL PEDIATRICS**

Laura Christofano
Dominican University – Biology

Chemistry

Schaible Science Center, Room 137

CHM-1 – CHM-6

10:00 CHM-1 QUANTIFICATION OF INORGANIC IONS IN COMMERCIAL TEAS

Genica Zdenek and Swetha Duggirala
Benedictine University – Chemistry

10:20 CHM-2 ELLIPSOMETRIC SIMULATION AND MEASUREMENT OF POLYELECTROLYTE MULTILAYER THIN FILMS

Geoffrey Poore
Wheaton College – Chemistry

10:40 CHM-3 SYNTHESIS OF HOPF LINK PEPTIDES

David Bisterfeldt
Benedictine University – Chemistry

11:00 CHM-4 TOPOLOGY OF SPIDER SILK

Hawnyeu M. Moy
Benedictine University – Chemistry

11:20 CHM-5 ENERGY TRANSFER AND DIFFUSION IN POLYELECTROLYTE MULTILAYER THIN FILMS

Roger Scharf
Wheaton College – Chemistry

11:40 CHM-6 PROTEIN STRUCTURE TOPOLOGY OF BETA SHEET STRUCTURES

Nidhi Kapur
Benedictine University – Chemistry

Computer Science

Computer Science and Technology Center, Room 112
CS-1 – CS-6

10:00 CS-1 E-BUSINESS

Tonette Preston, Kristin Adamczyk, Ning-Geng Ong, and Durell Knight
Lewis University – Computer Science

10:20 CS-2 THE MONO PROJECT

Luis Cornejo, Raul Rodriguez, and Nicholas Ashfield
Lewis University – Computer Science

10:40 CS-3 TOWER OF HANOI

Larry Pollack
Benedictine University – Computer Science

11:00 CS-4 .NET

Willam Genz, Ikechi Nnakwe, and Adam Wilson
Lewis University – Computer Science

**11:20 CS-5 RESEARCH PRESENTATION ABOUT BUFFER
OVERRUNS**

Gaurav Sharma
Elmhurst College – Computer Science

11:40 CS-6 SURVEY OF PROGRAMMING LANGUAGES

Jose Ramirez, Jason Ekstrom, and Nicholas Joagodzinsky
Lewis University – Computer Science

Mathematics

Old Main, Room 209

MAT-A1 – MAT-A6

10:00 MAT-A1 EXPLORATION OF n -REGULAR STICK NUMBERS FOR ALTERNATING KNOTS

Jessica Tyrus

Benedictine University – Mathematics

10:20 MAT-A2 n -REGULAR STICK NUMBERS OF TORUS KNOTS

Ashley Rink

Benedictine University – Mathematics

10:40 MAT-A3 TYPES OF BLOCK PRODUCTS

Sara Rogala

Elmhurst College – Mathematics

11:00 MAT-A4 ANALYTIC PROCESS OF FINDING A LOWER BOND ON STICK NUMBERS

John Reynolds

Benedictine University – Mathematics

11:20 MAT-A5 KNOTTING IN DNA

Moyeena Merchant

Benedictine University – Mathematics

11:40 MAT-A6 GEOMETRIC ANALYSIS OF POTENTIAL ENERGY RELATIONSHIPS AMONG CONFORMATIONS OF CYCLOHEXANE IN TERMS OF BOND ANGLES

Christine Bartczak

Benedictine University – Mathematics

Mathematics

Old Main, Room 307

MAT-B1 – MAT-B6

**10:00 MAT-B1 EQUILATERAL STICK NUMBER AND JONES
POLYNOMIAL SPAN**

Adam Kamin

Benedictine University – Mathematics

10:20 MAT-B2 SEED SPIRALS IN FLOWERS

Janeen Cloutier

Benedictine University – Mathematics

**10:40 MAT-B3 WINNING THE MOST ON *THE WEAKEST LINK*
WITH STRATEGIES BASED ON PROBABILITY**

Theresa Meshes

Dominican University – Mathematics

**11:00 MAT-B4 COMBINATORIAL THEORY AND XOR'S BEHIND
THE GAME OF "NIM"**

Anthony DeLegge

Benedictine University – Mathematics

**11:20 MAT-B5 POLYNOMIAL EQUATIONS AND CIRCULANT
MATRICES**

Candy Cieszynski

Benedictine University – Mathematics

**11:40 MAT-B6 RECOMBINASES, TOPOISOMERASES, AND DNA :
GAINING A DEEPER UNDERSTANDING THROUGH MATHEMATICAL
ANALYSIS**

Sarah Carter

Benedictine University- Mathematics

Psychology

Old Main, Room 105

PSY-A1 – PSY-A5

10:00 PSY-A1 THE EFFECT OF ONE'S SELF-ATTRACTIVENESS RATING AND GENDER ON PERSON PERCEPTION

Leigh Vickroy

Olivet Nazarene University – Psychology

10:20 PSY-A2 INTERNSHIP AT OTTAWA FRIENDSHIP VILLAGE EMPHASIS ON WILLIAMS SYNDROME

Ryanne Bright

Aurora University – Psychology

10:40 PSY-A3 DIFFERENCES IN SOCIAL COURTESY AS A FUNCTION OF REGIONAL LOCATION AND GENDER

Sara Windholz

Olivet Nazarene University – Psychology

11:00 PSY-A4 COLLEGE STUDENTS' SOURCES AND FREQUENCY OF INFORMATION ON THE CURRENT SITUATION IN IRAQ AND HOW THAT AFFECTS THEIR BEHAVIOR AND ATTITUDES

Edward Jones, Stephanie Schutz, Jessica Blessman, and Jennifer Samanich

Concordia University – Psychology

11:20 PSY-A5 THE EFFECT OF GENDER OF STUDENT ON TEACHER RESPONSES IN THE ELEMENTARY SCHOOL SETTING

Ryanne Johnston

Olivet Nazarene University – Psychology

Psychology

Old Main, Room 108
PSY-B1 – PSY-B6

10:00 PSY-B1 THE EFFECTS OF TELEVISION VIOLENCE AND GENDER ON RECALL OF COMMERCIAL CONTENT

Jason Price

Olivet Nazarene University – Psychology

10:20 PSY-B2 THE EFFECT OF ANTISOCIAL BEHAVIOR AND GENDER UPON POPULARITY AND LIKING RATINGS

Kerry Maiolo

Olivet Nazarene University – Psychology

10:40 PSY-B3 PARENT/CHILD INTERVENTION WORK; AN INTERNSHIP EXPERIENCE

Kristi Carnduff

Aurora University – Psychology

11:00 PSY-B4 THE EFFECT OF TYPE OF PASTORAL POSITION AND GENDER OF CANDIDATE UPON THE PASTORAL SELECTION PROCESS

Jonathan Gainey

Olivet Nazarene University – Psychology

11:20 PSY-B5 FACIAL SYMMETRY AND PERCEPTION OF ATTRACTIVENESS

Kandice Cardona and Meredith Marzec

University of St. Francis – Psychology

11:40 PSY-B6 THE EFFECT OF GENDER AND TYPE OF PROFESSION UPON PERCEIVED JOB PROFICIENCY RATINGS

Lisa A. Lockwood

Olivet Nazarene University – Psychology

Psychology

Old Main, Room 008
PSY-C1 – PSY-C5

**10:00 PSY-C1 BARRIERS TO EFFECTIVE COMMUNICATION;
HOW GENDER OFFENSIVENESS AFFECTS READING
COMPREHENSION**

Emily Huggins

Olivet Nazarene University – Psychology

**10:20 PSY-C2 THE EFFECT OF GENDER OF SPELLER AND WORD
USE FREQUENCY UPON SPELLING PROFICIENCY IN HIGHER
EDUCATION**

Aaron Wirick

Olivet Nazarene University – Psychology

**10:40 PSY-C3 PERCEPTIONS OF CONTROL IN CAREGIVERS OF
CHILDREN WITH JUVENILE BATTENS DISEASE**

Jennifer Pankow

Aurora University – Psychology

**11:00 PSY-C4 THE RELATIONSHIP BETWEEN THE SIZE OF A
CONGREGATION AND THE SPIRITUAL HEALTH OF A CHURCH**

Courtney Brown

Olivet Nazarene University – Psychology

**11:20 PSY-C5 THE EFFECT OF LEADERSHIP STYLE AND
GENDER OF CANDIDATE UPON THE PASTORAL SELECTION
PROCESS**

Benjamin Kunz

Olivet Nazarene University – Psychology

Psychology and Business & Economics

Old Main, Room 101

PBE-1 – PBE-6

10:00 PBE-1 POSSIBLE FACTORS ASSOCIATED WITH BODY DISSATISFACTION

Brandi Davies and Beth Marschall

Elmhurst College – Psychology

10:20 PBE-2 THE EFFECT OF PHYSICAL ATTRACTIVENESS AND GENDER ON PERCEIVED PROFESSIONAL COMPETENCE AND EMPLOYABILITY

Matt McDonald

Olivet Nazarene University – Psychology

10:40 PBE-3 UNDERGRADUATES ESTIMATE SALARIES BASED ON GENDER AND CAREER

Tara A. Latta and Annette J. Talanian

Lewis University – Psychology

11:00 PBE-4 THE RELATIONSHIP BETWEEN GRADE POINT AVERAGE AND SELF-ESTEEM AS MEDIATED BY GENDER

Jennifer Mathis

Olivet Nazarene University – Psychology

11:20 PBE-5 POST TRAUMATIC STRESS DISORDER: AN OVERVIEW CLASSIFICATION AND AVAILABLE TREATMENT OPTIONS

Margaret M. Serb

Lewis University – Psychology

11:40 PBE-6 STUDENT REFLECTIONS ON A NATIONAL CONFERENCE PRESENTATION

Jessica Gardiner and Megan Leahy

Elmhurst College – Business/Economics

Sociology

**Schaible Science Center, Room 203
SOC-1 – SOC-6**

10:00 SOC-1 SURVEY RESEARCH DONE ON THE STUDENT PARTICIPATION CENTER AT INDIAN TRAIL JUNIOR HIGH IN ADDISON, IL

Kelly Van Guilder
Elmhurst College – Sociology

10:20 SOC-2 ETHNIC STRATEGIES USED BY ITALIAN-AMERICAN ENTREPRENEURS TO FRAME THEIR ETHNICITY

Frank Oplawski
North Central College – Sociology

10:40 SOC-3 STUDENT ATTITUDES AND BEHAVIORS ON THE USE OF ALCOHOL, TOBACCO, AND MARIJUANA IN A COLLEGE SETTING

Andrew M. Walton
Concordia University – Sociology

11:00 SOC-4 ETHNIC ENTREPRENEURSHIP IN BRAZIL

Hanni Murray
North Central College – Sociology

11:20 SOC-5 COMMUNITY ELITES AND THE O'HARE CONTROVERSY

D. Scott Tharp
Elmhurst College – Sociology

11:40 SOC-6 UNDERSTANDING THE RECRUITMENT PROCESS FOR THE ARMY

Kristin Wallon
North Central College – Sociology