

15th Annual Kansas City Regional MATHEMATICS TECHNOLOGY EXPO

at the Richardson Science Center, Rockhurst University, Kansas City, MO
Friday and Saturday, October 7 and 8, 2005

Schedule of Events and Abstracts

We thank Rockhurst University for their generous hospitality in providing the lecture hall, classrooms, and exhibitor area, as well as computers, Internet connections and audiovisual equipment. We thank the Rockhurst students and faculty, who have given up their classrooms so the EXPO can take place. Our thanks also go to the following individuals from Rockhurst for their technical support of the EXPO:
Matt Heinrich, Director of Computing Services; James Augustyn, Network Analyst;
and Michael Marshall, PC/AV Support Technician.

We thank the Kansas City Professional Development Council (KCPDC) for sponsoring many EXPO participants, and we thank Johnson County Community College for funding paper and printing for EXPO mailings, the program booklet, and EXPO packet information.

Registration in the lobby of Richardson Science Center
Friday, 8:00 a.m. – 1:45 p.m., and Saturday, 8:00 a.m. – 1:00 p.m.

Complimentary continental breakfasts
Continental breakfasts are available both Friday and Saturday mornings in the registration area, sponsored in part by Thomson Learning and Addison Wesley.

Lunches
Friday buffet is \$8.50 a person and the Saturday box lunch is \$7.50 a person. Lunches were ordered with pre-registration, but there may be some available for purchase at the EXPO registration table.

Conference Lounge, Room 206
Friday, 10:15 a.m. – 3:30 p.m.; Saturday, 8:00 a.m. – 1:45 p.m.
Extra copies of handouts from talks will be placed in the Conference Lounge. Internet access is available.

Textbook, Hardware, and Software Exhibitors
Friday, 8:00 – 2:45 p.m.; Saturday, 8:00 a.m. – 1:00 p.m. (Not all exhibitors will be present on Saturday.)
Houghton Mifflin, McGraw Hill, Prentice Hall, Hawkes Learning Systems, and MAA books

Door Prizes:
We thank the following companies that have donated door prizes to be given away following the Keynote Address and the Invited Address:
Design Science, Hawkes Learning Systems, Houghton Mifflin, Mackichan, Minitab, and Texas Instruments

FRIDAY, October 7, 2005

Welcome and Introductions

Friday, 8:30 a.m.

Room 115

Richard Gill, 2005 EXPO Group Chair, Blue Valley High School, Stilwell, KS
Fr. Edward Kinerk, President of Rockhurst University, Kansas City, MO

SESSION 1 – Keynote Address

Friday, 8:30 a.m. – 9:50 a.m.

Room 115

Using Groups and Graphs to Create Computer Generated Escher-type Artistic Designs

Joseph Gallian

University of Minnesota – Duluth, Duluth, MN

<http://www.d.umn.edu/math/people/faculty/jgallian.html>

This talk will illustrate how one can employ group theory and graph theory to generate repeating patterns in the hyperbolic plane and the Euclidean plane. One such pattern appeared on the 2003 Mathematics Awareness Month poster.

Door prizes will be awarded directly following Joseph Gallian's address.

SESSION 2

Friday, 10:00 a.m. – 10:45 a.m.

2A. *Rediscovering Nomograms in a Digital Age*

Room 203 **Chuck Pheatt and Jorge Ballester, Emporia State University, Emporia, KS**

Nomograms, sometimes referred to as alignment charts, are graphical calculators that are closely related to slide rules. Before the advent of handheld calculators and spreadsheets, nomograms were extensively used by scientists and engineers for performing calculations. Numerous books were published in the 1940's through the 1960's illustrating the construction and use of these calculation tools. Despite the rapid advance of computers, nomograms are still of practical use in situations where it is convenient to be able to refer to typical values of the important parameters in the units most commonly employed for specific technical disciplines. Nomograms most recently have appeared as tools for health care professionals dealing with multiple parameter relationships such as determining body surface area. The authors will illustrate the use and creation of nomograms using both conventional and computer software based techniques. They will illustrate how nomograms may be used in the classroom to understand and evaluate complex relations and assess parameter tradeoffs.

Presider: Richard Gill, Blue Valley High School, Stilwell, KS

2B. ***Exploring Quartic Plane Curves with Excel***

Room 205 Steve Wilson, Johnson County Community College, Overland Park, KS

The presenter will demonstrate an Excel-based web page that allows the user to explore the effect of the parameters in the general quartic polynomial in two variables. The mathematical theory for solving quartic equations, and issues encountered during the implementation of the solution in a numerical setting, will also be addressed. Targeted courses: College Algebra and Analytic Geometry. <http://staff.jccc.edu/swilson>
<http://staff.jccc.net/swilson/mathtopics/planecurves/quarticplane.xls>

Presenter: Larry Long, DeVry University, Kansas City, MO

2C. ***PascGalois: Visualizing Algebraic Concepts through Coloring Pascal's Triangle***

Room 302 Cynthia Woodburn, Pittsburg State University, Pittsburg, KS

Computing Pascal's Triangle using modular addition allows one to "color" the triangle leading to beautiful patterns. These patterns can be explored to help students visualize algebraic concepts, such as commutativity, closure, identities, inverses, and even quotient groups. We will demonstrate software that produces images of Pascal's Triangle mod n as well as by using non-cyclic groups and discuss activities that can be used with students ranging from high school to undergraduate abstract algebra.

Targeted courses: Abstract Algebra, Discrete Mathematics, High School Algebra

<http://www.pittstate.edu/math/Cynthia/cynthia.html>

Presenter: Keith Brandt, Rockhurst University, Kansas City, MO

2D. ***Problem Solving with the TI-83***

Room 306 Richard Chilcoat, Wartburg College, Waverly, IA

This talk will focus on using TI-83 features such as the list, tables, and graphing, to investigate various problems in Pre-Calculus, Geometry, and Mathematics for Elementary Teachers.

Presenter: Lisa Erickson, a student at UMKC and Mid-America Nazarene University, and a tutor in the Math Resource Center at JCCC.

SESSION 3 Exhibitors

Friday, 10:45 a.m. – 11:30 a.m.

**Lobby and
Room 206**

This time is provided especially so that EXPO participants will have a chance to visit the Exhibitors in the lobby of the Richardson Science Center and also to visit the Conference Lounge, Room 206, where extra handouts from EXPO sessions will be located, and Internet access is available. The Exhibitors Area and the Conference Lounge will also be open at other times during the EXPO.

SESSION 4

Friday, 11:30 a.m. – 12:15 p.m.

4A. *TI Study Cards*

Room 203 Kevin Hopkins, Southwest Baptist University, Bolivar, MO

What are TI Study Cards? What can you do with them? How hard are they to create? Are they better than traditional study cards? Are they a legitimate use for TI graphing calculators? Come and learn the answers to these questions.

Kevin's home page: <http://www.sbuniv.edu/cosm/Math/khopkins.htm>

Kevin's most recent talks: <http://www.sbuniv.edu/%7Ekhopkins/hopkresu.html>

Presider: John M. Soptick, Kansas City Kansas Community College, Kansas City, KS

4B. *Oh What a Web We Weave. . .*

Room 205 David Ewing, Central Missouri State University, Warrensburg, MO

Can a web page increase your teaching effectiveness? Come watch this demonstration of 'how to' create a good webpage, what should be included, and how to avoid pitfalls.

Appropriate for all teachers from grades K through college, various website and software packages will be discussed. The participants will learn what items should be included, learn what **not** to do, see the benefits of having a course/class webpage, hear about possible problems, and see sources of software and sites. (This talk will be repeated on Saturday afternoon.)

Presider: Rick Silvey, University of Saint Mary, Leavenworth, KS

4C. *Discussion: Placement Testing – Searching for the Grail, but Working in the Real World*

Room 302

Moderators: Ken Eichman, Longview Community College, Lee's Summit, MO, and Richard Delaware, University of Missouri – Kansas City, Kansas City, MO

Opinions abound concerning math placement. There's the philosophical issue: Should we just allow students to enroll at their own risk, should we provide a tool to help guide students, or should placement be mandatory based on some assessment? There's the issue of what testing instrument to use: Do we write our own, use a commercial product, use ACT/SAT scores? There's the issue of technology: Can we do these tests online? What, if any, type of calculator should be used by students taking placement tests? There's the administrative issue: Who's in charge of placement, the math department: student services, the admissions office...? Come and share how your institution is working to resolve these issues.

4D. *Discussion: Test-Writing in the Age of Calculators, PDA's, and Laptops*

Room 306

Moderators: Richard Gill, Blue Valley High School, Stilwell, KS, and Keith Brandt, Rockhurst University, Kansas City, MO

Electronic devices continue to get more sophisticated. Has our ability to write meaningful assessments kept up with technology? Do cell phones pose a problem for test security? Are we taking advantage of greater computational power to pose more difficult questions? What has worked for you? What hasn't worked? Share your experiences and hear how others are coping creatively with ever changing technology as they assess students.

LUNCH

Friday, 12:15 p.m. – 1:30 p.m. in Massman Hall

SESSION 5

Friday, 1:30 p.m. – 2:15 p.m.

5A. **Using Technology in a Post-Calculus Mathematical Biology Course –
A Followup Report**

Room 203

John Koelzer and Chad Scholes, Rockhurst University, Kansas City, MO; and student Kelli Baalman, a junior Biology major at Rockhurst

The presenters will report on a course entitled, *Mathematical Modeling in Biology*, which was taught for the first time in the spring semester of 2005. A description of this course was presented at last year's EXPO. The goal of the course is to provide the students with a broad range of mathematical biology models and applications of these models to real world problems. Two of the presenters, Koelzer and Scholes, were involved in the instructional aspect of the course. They will describe several of the topics covered and will demonstrate how *Mathematica* and other software tools were used to develop the underlying concepts. The other presenter (Baalman) was a student in the course and will present a student's perspective on the course.

Presider: John Soptick, Kansas City Kansas Community College, Kansas City, KS

5B. **Interactive Algebra Tutorials Using Excel**

Room 205

Merrill Goldberg, Rockhurst University, Kansas City, MO

Through the use of a "disguised" Excel Spreadsheet, manipulating a formula algebraically to solve for a different variable is replaced by a step-by-step calculator procedure, entering parameters for a problem and emphasizing algebraic operations and correct notation. The concept can be used to provide practice in solving a variety of problems such as: calculating slopes of lines, solving equations of a specified type (especially helpful in solving with logarithms for unknowns in the exponent), modeling exponential and power functions using semi-log and log-log plots, and solving differential equations (including Newton's Law of Cooling). Rapid reinforcement helps students see where they may have gone wrong. A major goal of the talk is to present a number of Excel techniques that facilitate development of such spreadsheets for a variety of problems.

Presider: Larry Long, DeVry University, Kansas City, MO

5C. **The Effectiveness of Online Practice Quizzes Using Blackboard**

Room 302

Jeffrey Hurn, Highland Community College, Highland, KS

The speaker conducted a two-semester experiment at Highland Community College during the 2004-2005 school year as part of dissertation work at Kansas State University, about the effectiveness of online practice quizzes and computer-based assessment in the learning of algebra. The speaker will share the results of the experiment, review the relevant literature about practice, and discuss with the audience some of the best practices for designing and delivering online practice quizzes with Blackboard.com. While the speaker's experience has been in using online practice quizzes in College Algebra and in Basic College Statistics, this practice could be used in high school Algebra II courses and introductory college courses like Elementary Algebra, Intermediate Algebra, and Calculus I as well. Additionally, other online technologies such as IQWeb, WebCT, and the use of the myriad of online supplementary materials currently accompanying all high school and college-level algebra

textbooks can also be used effectively with the techniques discussed in this talk. The results from the comprehensive dissertation study will bring to light several innovative discoveries that educators attending the session will find helpful and useful. A short question-and-answer session will follow the talk.

Presider: Michael Scott, California State University – Monterey Bay, Seaside, CA

5D.

Room 306

Never Erase the Board Again! The Interwrite Software and Tablet in the Mathematics Classroom

Uwe Conrad, Cowley County Community College – Southside Center, Wichita, KS

Don't be tied to the marker board – enjoy the freedom of Bluetooth mobility. In this presentation I will demonstrate the usefulness and versatility of the Interwrite Software and Tablet. Learn how to set up and customize the toolbar. Learn how to preserve your lecture notes by writing them to CD or uploading them to the internet – even share them via email in PDF format. Learn how to import background images to suit a variety of course requirements. I will provide handouts with easy to follow instructions.

Presider: Chuck Pheatt, Emporia State University, Emporia, KS

SESSION 6

Friday, 2:30 p.m. – 3:15 p.m.

6A.

Room 203

A Calculus Course Sequence for Biology Students

Timothy Comar, Benedictine University, Lisle, IL

To better prepare biology and pre-medical students for the increasing level of mathematical background needed for their future coursework, the Department of Mathematics at Benedictine University has begun to offer a two-semester calculus sequence for this audience. Although this new course sequence is offered at the same level of mathematical rigor as the traditional sequence for students majoring in mathematics, physics, and engineering, the content is specifically geared to meet the needs of the biology and pre-med students. In this talk, we discuss differences between our course outline and the standard calculus syllabus, the software platforms we use and will consider, examples of activities using these different software platforms, and the ongoing collaboration between the mathematics and biology departments to continually update this course sequence. We will present examples from Derive, Excel, MATLAB, and the dynamical systems program, Berkeley Madonna.

Presider: Steve Wilson, Johnson County Community College, Overland Park, KS

6B.

Room 205

Teaching Proof with Online Visual Logic Puzzles – a Reprise

John Cigas, Rockhurst University, Kansas City, MO

This talk introduces a variety of visual logic puzzles and how to use them to teach logic and non-algebraic proofs. It demonstrates various on-line programs for solving the puzzles and how to use these programs in the classroom. Students solving these puzzles not only get a better understanding of implication, logic, and proofs, they also end up with a pleasant picture as well! Most of the talk will be a reprise of the 2004 talk with a few additional examples of using these puzzles to motivate discussions of algorithms, complexity, and even programming.

Presider: Jorge Ballester, Emporia State University, Emporia, KS

6C. *Using “Maplets” in the Classroom*

Room 302 William Newman, Peru State College, Peru, NE

Maple is not always as useful a classroom tool as we would like, due to the fact that students must learn Maple commands and syntax before they can work with Maple worksheets. Maplets provide a user-friendly interface so that students can make use of Maple’s capabilities without having to learn Maple. This talk will introduce the basics of writing Maplets and demonstrate some Maplets I have written for use in Precalculus, Calculus and Discrete Mathematics courses. I will also discuss some positive and negative experiences I have had writing and using Maplets. <http://cauchy@peru.edu/~newman>

Presider: Keith Brandt, Rockhurst University, Kansas City, MO

6D. *Soft Computing*

Room 306 Andrew Bennett, Kansas State University, Manhattan, KS

Soft computing is sometimes defined as the study of algorithms for solving ill-posed problems. Standard techniques include neural networks, support vector machines, fuzzy computing, and cluster analysis. This is a hot area in computer science, statistics, and operations research, largely because of its connections to data mining. This talk will give a brief overview of the subject with particular emphasis on cluster analysis.

www.math.ksu.edu/~bennett

Presider: Mary Rack, Johnson County Community College, Overland Park, KS

POST-SESSIONS for KAMATYC and MOMATYC

Friday, 3:30 p.m.

Room 302 MOMATYC – informal meeting

Room 306 KAMATYC – informal meeting

(Interested KAMATYC and MOMATYC participants will go to supper together after the meetings.)

* * * * *

SATURDAY, October 8, 2005

Welcome and Introductions

Saturday, 8:30 a.m.

Room 115

Richard Gill, 2005 EXPO Group Chair, Blue Valley High School, Stilwell, KS

SESSION 7 – Invited Address

Saturday, 8:30 a.m. – 9:50 a.m.

Room 115

Mathematics and What Really Happens When Students Work Online

Andrew Bennett

Kansas State University, Manhattan, KS

<http://www.math.ksu.edu/~bennett>

There are now many tools for teaching mathematics online, ranging from interactive “mathlets” that illustrate a single idea to complete systems of online instruction and assessment. With most of these tools, students work outside the class and outside the view of the instructor. This talk will discuss how students really interact with some online tools in actual course settings and how these interactions contribute (or fail to contribute) to student learning.

Door prizes will be awarded directly following Andrew Bennett’s address.

SESSION 8

Saturday, 10:00 a.m. – 10:45 a.m.

8A. *West Point Bridge Design Contest*

Room 203 **Brock Wenciker, Shawnee Mission East High School, Overland Park, KS, and Patrick Flynn, Turner High School, Kansas City, KS**

The West Point Bridge Design Contest is a nationwide Internet-based competition intended to promote math, science, and technology education in U.S. middle schools and high schools. The contest provides students with a realistic introduction to engineering through an engaging, hands-on design experience. The speakers will discuss the competition and demonstrate the software. <http://bridgecontest.usma.edu>

Presider: Uwe Conrad, Cowley County Community College – Southside Campus, Wichita, KS

8B. *Workshop: Writing and Drawing Mathematics I – Incorporating Excel Graphics into Word Documents*

Room 205 **Suzanne Hunt, Johnson County Community College, Overland Park, KS, and University of Missouri – Kansas City, Kansas City, MO**

Experience for yourself how to create graphics in Microsoft Excel and then incorporate them into your Word document. Topics will include: creating graph paper using a table; graphing linear, polynomial, rational, exponential and logarithmic functions; graphing

piecewise functions; creating pie charts; and creating histograms and scatterplots. Microsoft Equation Editor will be one of the tools used. Bring your ideas and graph them during the session.

Presider: Rick Silvey, University of Saint Mary, Leavenworth, KS

8C.

Room 302

***Commercial Demonstration: The Power of Mediated Homework –
Hawkes Software in Statistics and College Algebra***

**Ron Palcic, Christopher Imm, Jeffrey Lewis, Johnson County Community College,
Overland Park, KS**

This presentation concentrates on the benefits of using interactive software in teaching College Algebra and Statistics courses. The presentation will begin with a discussion of various classroom strategies and learning environments, leading into how including interactive software in the curriculum bolsters student performance and retention. Features of Hawkes interactive software, that promotes this improvement, will be explored, including (but not limited to) intelligent feedback in diagnosing common errors and step-by-step tutorials. The presentation will conclude with check points in selecting software, student feedback and comparisons of classes taught with and without supplemental software.

Presider: Joe Yanik, Emporia State University, Emporia, KS

8D.

Room 306

Using SketchPad to Form Connections Between Geometry and Algebra

Timothy Comar, Benedictine University, Lisle, IL

One of the NCTM process standards establishes the importance of emphasizing and developing connections between mathematical topics so that students can form a deeper, relational understanding of mathematics as a whole. We will provide examples of how Geometer's SketchPad can be used to establish connections between geometry and algebra. These examples are specifically designed for use in a geometry course for future elementary teachers but, with appropriate modifications, could be used in high school geometry courses or content courses for future middle and high school teachers.

Presider: Brian Hollenbeck, Emporia State University, Emporia, KS

SESSION 9

Saturday, 11:00 a.m. – 11:45 a.m.

9A.

Room 115

The Mathematics of Identification Numbers

Joseph Gallian, University of Minnesota – Duluth, Duluth, MN

<http://www.d.umn.edu/math/people/faculty/jgallian.html>

Because of the existence of inexpensive, fast, and reliable technology, consumer products are identified with bar codes and identification numbers that have a built-in “check” to partially ensure that the numbers have been correctly entered into a computer or have been correctly scanned by an optical device. In this talk we examine some of the common bar coding and check digits schemes that you encounter everyday. Among them are the UPC bar code, the ZIP bar code, and the check methods used on credit cards, airline tickets, money orders, travelers checks, personal checks, pop cans, books, and magazines.

Presider: Michael Scott, California State University – Monterey Bay, Seaside, CA

9B.
Room 203

Dynamic Web Tools for Exploration, Modeling, and Assessment
**Steve Wilson and Mike Martin, Johnson County Community College,
Overland Park, KS**

The presenters will demonstrate some publicly available dynamic web tools which they have developed to promote exploration, demonstration, modeling, as well as practice of basic skills, in their math courses. These web pages can be used in numerous courses, including college algebra, mathematics of social choice, statistics, complex analysis, calculus, differential equations, and biomathematics. Also, the rudiments of web $Mathematica$ coding will be briefly described.

Dynamic Web Tools: <http://staff.jccc.edu/mmartin/webmath.html>

Steve Wilson: <http://staff.jccc.edu/swilson>

Mike Martin: <http://staff.jccc.edu/mmartin/>

Presenter: Tim Comar, Benedictine University, Lisle, IL

9C.
Room 205

Contour Plots and Animation with Maple in the Math of Finance
Kevin Charlwood, Washburn University, Topeka, KS

We shall look at some contour plots of various important interest and annuity formulas from the area of finance using Maple 9.5 to help students explore the effects of changing one variable in one of these formulas. We shall also use some animation as well to highlight the impact of changing a variable in a financial formula. Some of the results will be intuitive, and some may be surprising! <http://www.washburn.edu/cas/math/charlwood.html>

Presenter: Uwe Conrad, Cowley County Community College – Southside Campus, Wichita, KS

9D.
Room 306

Mathematical Concept Development for Pre-Service Elementary Teachers Using Power Point Animation

Wendell Wyatt, Northeastern State University, Tahlequah, OK

A PowerPoint presentation showcases the custom animation feature in developing mathematics concepts for elementary teachers or middle level mathematics students. The mathematics topics include operations on a number line, area, GCD and LCM, counting strategies, and pictorial representations of familiar manipulatives being used in computation and problem solving. Several mathematics concepts will be depicted using multiple representations in a dynamic environment. <http://arapaho.nsuok.edu/~wyattw/>

Presenter: Brian Hollenbeck, Emporia State University, Emporia, KS

LUNCH

Saturday, 11:45 a.m. – 1:00 p.m. in Massman Hall

SESSION 10

Saturday, 1:00 p.m.

10A.

Room 203

WORKSHOP: Getting Started With Geometer's SketchPad – Basics and Beyond

1:00 – 2:00 p.m.

Richard Gill, Blue Valley High School, Stilwell, KS

In the spirit of No Child Left Behind, this workshop is individualized so that every teacher wanting to have increased experience with Geometer's Sketchpad (GSP) can do so regardless of past experience. Participants will have a choice of several investigations

featuring step by step instructions on the use of GSP. Those with no knowledge of GSP can get started with the basics of creating figures and measuring angles, lengths and areas. Those with more experience can explore applications of GSP to algebra, advanced algebra and trigonometry. In particular, those who have worked only with version 3.0 can explore the graphing of functions provided by version 4.0. All investigations can be used by students for exploration or by teachers needing an electronic blackboard or an additional source for graphs and pictures.

Presider: Steve Wilson, Johnson County Community College, Overland Park, KS

10B.
Room 205

WORKSHOP: Writing and Drawing Mathematics II – Cheap, Accessible Tools

1:00 – 1:45 p.m.

Tamatha Leuschen, Center High School, Kansas City, MO

Create impressive, professional handouts, quizzes, tests, and presentations by using cheap and/or free accessible tools that interface with MS Word and MS PowerPoint. Topics will include: MS Equation Editor (including formatting), TI Graphing Calculator (using TI-Connect), Smart Notebook (for use with SmartBoards), and online sources.

Presider: Mary Rack, Johnson County Community College, Overland Park, KS

10C.
Room 302

Oh What a Web We Weave. . . An Encore Presentation, by Popular Demand

1:00 – 1:45 p.m.

David Ewing, Central Missouri State University, Warrensburg, MO

Can a web page increase your teaching effectiveness? Come watch this demonstration of 'how to' create a good webpage, what should be included, and how to avoid pitfalls.

Appropriate for all teachers from grades K through college, various website and software packages will be discussed. The participants will learn what items should be included, learn what **not** to do, see the benefits of having a course/class webpage, hear about possible problems, and see sources of software and sites.

Presider: Joe Yanik, Emporia State University, Emporia, KS

The 2005 EXPO Group

- **Richard Gill** (2004 and 2005 Chair), rgill@bv229.k12.ks.us
Blue Valley High School, Stilwell, KS
- **Carl Anderson**, (2005 Evaluations) canders33@yahoo.com
Johnson County Community College, Overland Park, KS (retired)
- **Andy Bennett**, bennett@math.ksu.edu
Kansas State University, Manhattan, KS
- **Keith Brandt** (2005 Local Site) keith.brandt@rockhurst.edu
Rockhurst University, Kansas City, MO
- **Richard Delaware** (2005 Exhibitors, 1993 & 1994 Chair), delawarer@umkc.edu
University of Missouri – Kansas City, Kansas City, MO
- **Ken Eichman** (2005 Registration, 1997 & 1998 Chair), Ken.Eichman@kcmetro.edu
Longview Community College, Lee's Summit, MO
- **David Ewing** (2005 Special Speaker Contact) ewing@cmsu2.cmsu.edu
Central Missouri State University, Warrensburg, MO
- **Libby Holmgren** (2005 Publications, 1995 & 1996 Chair), lholmgre@jccc.net
Johnson County Community College, Overland Park, KS
- **John Koelzer** (2005 Site Coordinator & 2005 Financial Secretary),
John.Koelzer@rockhurst.edu
Rockhurst University, Kansas City, MO
- **Tamatha Leuschen** (2005 Webmaster), LeuschenT@Rockhurst.edu
Center High School, Kansas City, MO
- **Marian VanVleet** (2005 Recording Secretary, 1999 - 2003 Chair), vanvleetm@stmary.edu
University of Saint Mary, Leavenworth, KS
- **Joe Yanik** (2005 Presiders), yanikjoe@emporia.edu
Emporia State University, Emporia, KS