

Robert A. Chaney

PROFESSOR, MATHEMATICS
SINCLAIR COMMUNITY COLLEGE
444 WEST THIRD STREET
DAYTON, OHIO 45402-1460, USA

VOICE PHONE: 937-512-2367
FAX: 937-512-2384
EMAIL: ROBERT.CHANEY@SINCLAIR.EDU

EDUCATION

- (1983-1985) 45 additional graduate hours work in Mathematics (Topology, Real Analysis, Algebra) from Ohio University, Athens, Ohio.
- 1983 M.S. in Mathematics from Miami University, Oxford, Ohio, 1983.
(Note: Miami's MA degree is given for pure Mathematics, as opposed to the MS for Applied Math or Statistics)
- 1980 B.S. in Mathematics from Miami University, Oxford, Ohio, 1980.

AWARDS

- 2010 National Institute for Staff and Organizational Development (NISOD) Award for teaching and leadership excellence in higher education. The award was presented at the 32nd Annual International Conference in Austin, Texas, May 30 – June 2, 2010
- 2009 American Mathematical Association of Two-Year Colleges (AMATYC) National Teaching Excellence Award. The award was presented at the 35th Annual Conference in Las Vegas, Nevada, November 12-15, 2009
- 2008 *Ohio Mathematical Association of Two-Year Colleges (OhioMATYC) Teaching Excellence Award.*
- 2002 Sinclair Community College's "*Innovator of the Year Award*" entitled "Collaborative Learning Activities for the Math Science Technology Center".
- 2001 Sinclair Community College's "*Innovative Excellence in Teaching, Learning and Technology*" Award.

EXPERIENCE/RECOGNITION ("---" indicates "on-going")

- 2009--- Participated in State of Ohio's Board of Education work in revising the K-12 Mathematics Standards. I am a member of a working committee in Columbus, Ohio that is helping to rewrite Math Standards for Ohio's High Schools.
- 2008--- Sinclair's Project Director for a \$485,000 Ohio Grant: "Choose Ohio First STEMM Scholarship" program. (Launched by Wright State University 11-08). Grant will provide tuition funds for students in STEMM programs such as Mathematics, Science & Engineering.
- 2007--- Senior Personnel in \$800,000 NSF Grant (0703087) "Computational Science Program for Ohio Community and Technical Colleges". Helped facilitate the development of modules pertaining to mathematical modeling and the use of numerical methods in Calculus. These activities integrate Math, Science and Technology.
- 2006--- Co-Director of a non-profit organization "Learning with Math Machines". This organization was established to continue the SAM summer workshops began by the grants *Discovery of Ohio* & NSF Grant #0202202 listed below. (see <http://www.mathmachines.net>)
- 2005 WGBH's production "Getting Results" (<http://www.league.org/gettingresults/web/>). (sponsored by *League of Innovation*). This DVD series, produced for NSF's Advanced Technical Education program, focuses on teaching with technology in the Community College Classroom. My Tech Math class using "SAM the robot" was featured. Dr. John D. Bransford, Editor of the book: "How People Learn", is a content advisor for this project and introduced one of the video segments shot at Sinclair in the *Math Science Technology Center*. See overview video for Module 5 "Teaching with Technology" and Module 3 "Active Teaching and Learning" – "Engaging Students in Lecture and Lab" – video
- 2002 Project Director: \$400,000 NSF Grant #0202202 "Connecting Math, Science and Technology". Funds provided for curriculum development and support of SAM Summer Workshops (see 1999 below). These workshops have continued each summer with two being sponsored by *Honda* (2008, 2009) held

in Marysville, Ohio and at Gahanna Lincoln High School in Gahanna, Ohio.

(see <http://www.mathmachines.net>)

- 2001--- Professor of Mathematics at Sinclair Community College, Dayton, Ohio
- 1999--- Director of the *Math Science Technology Center* (MSTC). Co-wrote proposal to establish a Lecture/Lab classroom to teach applied Math courses such as Statistics & Tech-Math with integrated labs.
- 1999--- Co-Director/Facilitator of SAM Discovery/NSF Summer workshops. These workshops, began in summer 1999 have been funded by *Tech Prep*, *Discovery of Ohio*, the *Martha Holding Jennings Foundation & Honda* and have continued each summer to present time. I have co-facilitated 12 two-week summer workshops, 4 one-week workshops and 10 two-day follow-up workshops.
- 1998 Established special sections of Tech Math I & II courses to integrate hands-on labs.
- 1996 Co-wrote proposal to transform Statistics I & Statistics II courses at Sinclair from Lecture to Lecture/Lab by extending class time and integrating 12 hands-on labs into curriculum. Co-wrote a 20-lab manual for each of the two courses.
- 1994-97 Mathematics "Cluster Captain" and co-author of ten Mathematics Modules for NSF/ATE program at Sinclair Community College. (NSF Grants #DUE-9454571 and #DUE-9714424).
- 1996-01 Associate Professor in Mathematics at Sinclair Community College
- 1993-95 Assistant Professor in Mathematics at Sinclair Community College, Dayton, Ohio
- 1989-92 Instructor in Mathematics at Sinclair Community College, Dayton, Ohio

SELECTED CONFERENCE PRESENTATIONS

In addition to over 12 two-week summer workshops and 2 one-week workshops (mentioned above) held from 1999 to 2010, I was a presenter at the following Conferences--

- "Indiana Mathematical Association of Two Year Colleges Regional Conference (INMATYC)", April 16, 2010 at Ivy Tech Community College, Indianapolis, Indiana. I Co-presented one 90 minute hands-on workshop. "Using Real-World Data to Improve Students' Understanding of Functions".
- "Teachers Teaching with Technology Regional Conference (T3)", April 17 & 18, 2009 at University of Cincinnati, College of Applied Science. I presented one 90 minute hands-on workshop. "Spice Up Your Statistics Course with Activities and Technology".
- "Tech Fest 2008" - Presented activities for Tech Fest 2008 at Sinclair, Midsummer Fest at the Sinclair's Courseview campus in Monroe, Ohio, and for Centerville Career Day at Centerville High School, Centerville, Ohio.
- "Teachers Teaching with Technology Regional Conference (T3)" April 27, 28, 2007, Rhoads State College, Lima, Ohio. I presented two 75-min. sessions on using technology in teaching Statistics & Tech Math.
- "Reaffirmation Committee to Southeast Kentucky Community and Technical College" I had the honor of being asked by the Southern Association of Colleges and Schools to serve as the Lead QEP Evaluator (Quality Enhancement Plan) on the Reaffirmation Committee for Southeast Kentucky Community College, Cumberland, Kentucky (October 10-12, 2006).
- "Teachers Teaching with Technology Regional Conference (T3)" April 1-2, 2005, Rhoads State College, Lima, Ohio. Presented a session on "How Calculators Can Make Things Happen in the Classroom" Two 75 minute sessions that demonstrated to participants how students can write simple calculator programs to control a robot, RC vehicles, pointers and other real equipment to learn Algebra.
- "AACC/NSF National ATE Principal Investigators Conference" National Science Foundation, Washington DC, October 13-15, 2004; October 5-7, 2005. (poster – session)
- "CBL2 Activities for Algebra Class," Teachers Teaching with Technology (T³) International Conference, New Orleans, March 12-14, 2004.
- "AACC/NSF National ATE Principal Investigators Conference" National Science Foundation, Washington DC, October 24, 2003. (poster – session)

- "Using the CBL's Digital Output to Make Things Happen in Algebra I & II" Teachers Teaching with Technology (T3) Regional Conference and OMATYC/OCTM/MAA Winter Institute, Columbus, February 14-15, 2003. I presented a two and a half-hour workshop that had participants working in teams to experience first hand the kinds of activities we use in the Math Science Technology Center here at Sinclair to help students learn Algebra.
- "Using the CBL's Digital Output to Make Things Happen in Algebra I & II" Teachers Teaching with Technology (T3) International Conference, Nashville, Tennessee, March 7-9, 2003. I presented a two and a half-hour workshop that had participants working in teams and to experience first hand the kinds of activities we use in the Math Science Technology Center to help students learn Algebra. This was pretty much a repeat from what was mentioned above although I did present different activities.
- "Robotics in the PK-12 Classroom" SOCHE, 2003 Annual Higher Education Conference, Central State University, Wilberforce, Ohio, March 28, 2003. Co-presented with Steven Harper, Chairperson, Automation & Control, Sinclair Community College, we gave a 90 min. presentation on using robotics as a teaching tool in the classroom. We also discussed our collaboration in working with Oakwood High School in Dayton.
- "Connecting Math, Science, and Technology" OhioMATYC Fall Meeting, Sinclair Community College, Dayton, Ohio, October 17, 2003. Co-presented with Kay Cornelius, we gave a 45 min. presentation on how we integrated real-world, hands-on group activities into Tech-Math 131&132 to help students have a better understanding of Algebra. The activities that were demonstrated made use of equipment like SAM the calculator-controlled robot. We also invited the participants to fill out applications for our NSF SAM Summer workshops.
- "SAM the Robot" NCTM (National Council for the Teachers of Mathematics) Fall Meeting, "Soar With the Standards", presented at Wright State University, Dayton, Ohio, November 19, 2003. Co-presented with Kay Cornelius, we gave essentially the same 45 min. presentation we gave at the OhioMATYC meeting mentioned above. We demonstrated how we have integrated real-world, hands-on group activities into Tech-Math 131&132 to help students have a better understanding of Algebra. Also, in keeping with the meeting's theme, we showed how our philosophy in teaching Mathematics lines up well with both NCTM and AMATYC standards.
- "2002 Conference on Information Technology" As one of the winners of the Sinclair Community College 2002 Innovation of the Year Award, I attended a conference presented by the League for Innovation in Long Beach, California on November 17-20 2002..
- "Classroom Activities Using the CBL2's Digital Output" Teachers Teaching with Technology (T3) Regional Conference and OMATYC/OCTM/MAA Winter Institute, Columbus, February 15,16, 2002. This two-hour workshop allowed participants to work in teams and see first hand the kinds of activities we use for Statistics and Tech-Math in the Math Science Technology Center.
- "Using Hands-On Activities to Teach Mathematics" Thirteenth International Conference on College Teaching and Learning, Florida Community College, Jacksonville, Florida, April 9-13, 2002. I presented a 30 min. session on how Sinclair's math department was integrating activities into the statistics and Tech-Math courses. I attended this conference to receive the award "Innovative Excellence in Teaching, Learning and Technology" that I won last year.
- "Kiss the Bean Counter" (Co-presented with Barbara Carruth), The Ohio Council of Teachers of Mathematics, 52nd Annual Conference, Cincinnati, Ohio, October 10-12, 2002. I gave a 90 min. presentation. Participants worked in teams to see first hand how we use workplace relevant activities to teach Statistics.
- "The Math Science Technology Center" OMATYC Ohio Mathematical Association of Two Year Colleges, Terra Community College Oct. 6, 2001.
- "The Math-Science-Technology Center". Presentation to **Ohio Board of Regents**, (Co-presented with Fred Thomas, SCC Physics Department). March 22, 2001.
- "Use Your Calculator to Put Math and Science into Action," (Co-presented with Fred Thomas) Teachers Teaching with Technology (T³) International Conference, Columbus, March 17, 2001, repeated on March 18, 2001.

- "Using a Calculator-Based Robot to Help Teach Algebra," (Co-presented with Fred Thomas) Teachers Teaching with Technology (T³) International Conference, Columbus, March 17, 2001, repeated on March 18, 2001.
- "Digital Doers: Fun Activities that Make Things Happen," (Co-presented with Fred Thomas), National Science Teachers Association (NSTA) National Conference, St. Louis, March 24, 2001.
- "Using Calculators to Link Mathematics with Science & Technology" (Co-presented with Fred Thomas), **AMATYC** (American Mathematical Association of Two Year Colleges) Annual Convention 2000, November 9-12, 2000, Chicago Illinois.
- "Integrating Lab Activities into Introductory Statistics", **AMATYC** (American Mathematical Association of Two Year Colleges) Annual Convention 2000, November 9-12, 2000, Chicago Illinois.
- "Calculator-Based Control Systems," (Co-presented with Fred Thomas), T³ 2000 International Conference, Dallas, March 17, 2000.
- "Calculator-Based Control Systems: Using Mathematical Functions in Work-Related Activities," (Co-presented with Fred Thomas), American Mathematical Association of Two-Year Colleges Annual Meeting, Pittsburgh, Nov. 18, 1999.