

# Wayne E. Carlson

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## Curriculum Vitae

### PERSONAL DATA

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Office: The Department of Industrial, Interior and Visual Communication Design  
The Ohio State University  
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Columbus, Ohio 43210  
Telephone: (614) 688-3242 FAX:(614) 292-0217 email: carlson.8@osu.edu  
WWW: <http://design.osu.edu/carlson/WEC.html>

Residence: 1410 Wyandotte Road  
Columbus, Ohio 43212  
Telephone: (614) 486-6626

### EDUCATION

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PhD - Computer and Information Science (Computer Graphics), The Ohio State University, 1982.  
Thesis Title: *Techniques for the Generation of Three Dimensional Data  
for Use in Complex Image Synthesis.*

M.S. - Computer and Information Science (Computer Systems), The Ohio State University, 1975.

M.S. - Mathematics (Abstract Algebra), Idaho State University, 1974.

B.S. - Mathematics (Mathematics Education), Idaho State University, 1972.

### EMPLOYMENT

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1991 - **The Ohio State University**  
present Department of Industrial, Interior and Visual Communication Design  
Chair (2001-present) and Professor  
The Advanced Computing Center for the Arts and Design  
Director (1991-2000)  
Director of Research (2000-2001)  
Departments of Computer and Information Science, Art, and Art Education  
Courtesy Appointment (1991-present)

1988 - 1991 **The Ohio State University**  
Department of Computer and Information Science  
Assistant Professor

- 1982 - 1988     **Cranston/Csuri Productions, Inc.**  
           1987 - 1988     President  
           1985 - 1987     Executive Vice President – Operations  
           1982 - 1985     Vice President and Director of Production and R&D
- 1977 - 1982     **The Ohio State University**  
                   Department of Computer and Information Science  
                   Computer Graphics Research Group  
                   Research Associate
- 1976 - 1978     **Denison University**  
                   Department of Mathematical Sciences  
                   Instructor - Computer Science
- 1975 - 1976     **Hope College**  
                   Department of Mathematics  
                   Visiting Instructor - Mathematics and Computer Science
- 1974 - 1977     **The Ohio State University**  
           1974 - 1975     Department of Mathematics  
           1976 – 1977     Department of Computer and Information Science  
           (Summers)     Graduate Teaching Associate
- 1972 - 1974     **Idaho State University**  
                   Department of Mathematics  
                   Graduate Teaching Assistant

**AWARDS/HONORS**

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- Apple Computer Distinguished Educator Award, 2005  
 Excellence in Education Award, Ohio Association of Historical Societies and Museums, 2002  
 Global Information Infrastructure Awards - Semi-Finalist, GII Health Award, 1999  
 Ameritech Faculty Fellowship, 1995-1996  
 1995 CEN Cultural Performance Program Honorable Mention for CompuArt II (Director)  
 Recognition of Service Award, The Association for Computing Machinery, 1993  
 International Film and TV Festival of New York
- 1987 - Silver Award for *The Body Machine* (Co-Producer)
  - 1987 - Silver Award for *Dow Scrubbing Bubbles* animation (Director)
  - 1985 - Bronze Award for *NFL Lombardi Trophy* (Producer/Director)
  - 1984 - Gold Award for *CBS Super Bowl XVIII* (Producer/Director)
  - 1983 - Silver Award for *ABC News Promotional Campaign* animation  
           (Producer/Director/Animator)

Clio Award Finalist

1986 - TRW *Best Idea in the World* Ad Campaign (Producer)

TRW *Kaleidoscope* Ad Campaign (Producer)

1985 - *ABC News Open* (Producer/Director)

1986 Broadcast Promotion and Marketing Executives Gold Medallion for NBC Sports *NFL*

*Lombardi Trophy* Network Animation (Super Bowl XIV Open)

1986 Broadcast Designers Association Design Competition Silver Award - NBC Sports *NFL*

*Lombardi Trophy* (Producer/Director)

1984 Broadcast Designers Association Design Competition Gold Award - Best of Show for CBS

*Super Bowl XVIII Open* (Producer/Director)

Pi Mu Epsilon Honorary Mathematics Fraternity

## PROFESSIONAL ACTIVITIES

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### *University Committees*

Search Committee, Executive Dean and Vice Provost, Colleges of Arts and Sciences, 2008-present

The Women's Place Strategic Planning Committee, 2008-present

Honors and Scholars Advisory Committee, 2007-present

Graduate School Fellowship Selection Committee, 2004-2006

Advisory Committee for the Rare Books and Manuscripts Library, The Ohio State University Libraries, 2003-2008

Arts and Sciences Computing and Instructional Technology Committee, Colleges of the Arts and Sciences, 2003-2007

Wireless Instructional Strategies Committee, The Ohio State University Office of Instructional Technology, 2003-2006

The President's Council on Women's Issues (Inaugural Member - appointed by the President of The Ohio State University), 2001-2006

The Institute for Ergonomics Advisory Board, 1997-present

Interdisciplinary Center Directors Forum, 1991-2001

Industrial, Interior and Visual Communication Design Grad Studies Committee, 1992-2001

Industrial, Interior and Visual Communication Design Promotion and Tenure Committee, 1992-2001 (Chair, 1996-2001)

Technology Task Force, College of Education, 1998-2000

The Ohio State University Research Park Advisory Committee, 1994-1999

Graduate School Electronic Thesis and Dissertation Task Force, 1998-1999

OSU Research Computing Advisory Committee, (co-chair - 1994-95, chair - 1996) 1993-1996

Center for Interdisciplinary Studies in Art and Design Advisory Committee, 1992-1995

College of Medicine MRI Surgical Task Force member - 1990

College of Engineering Industrial Liaison Committee, 1988-1991  
 College of Engineering CAD/CAM Advisory Committee, 1988-1991  
 College of Engineering Committee for Manufacturing, 1988-1991  
 Industrial, Interior and Visual Communication Design Faculty Search Committee, 1995-1997  
 Computer and Information Science Faculty Search Committee, 1988-1991  
 Interdisciplinary Search Committees  
   Dean, College of the Arts, 1997  
   Director, University Technology Services, 1997  
   Faculty, Knowlton School of Architecture, 1997-1999  
   Participated in search for Director, Knowlton School of Architecture, 1997

### ***Non-University Committees and Boards***

Member – Information Technology Advisory Board, Reservoir Venture Partners (early stage venture capital fund), 2002-present.  
 Member - Advisory Board, Columbus Emerging Technology Fund (early stage venture capital fund), 2001-2002.  
 Chair - Graphics Subcommittee, Charles Babbage Institute Software History Project (funded by NSF 9979981), 2001-2007.  
 Member – Advisory Board - Eyebeam (Media Arts Organization - New York City), 2000-present  
 Member - Eyebeam Atelier 21st Street Project Committee (New York City), 2000-2002  
 Member - Apple Computer Corporation Higher Education Advisory Board, 1996-2000  
 Member - American NewMedia Educational Foundation Advisory Board, 1994-1999  
 Co-chair – Grandview Heights Public Schools Strategic Planning Action Team, 1998-present.  
 Member - Grandview Heights / Marble Cliff Historical Society Board of Directors, 1998-present  
   Chair - GHMCHS Technology Implementation Committee  
 Greater Columbus Chamber of Commerce, Information Technology Workforce Development Task Force, 1998-2003  
 Co-chair - Grandview Heights Public Schools Technology Pilot Team, 1994-2000  
 pARTners for the Arts Advisory Board, 1992-1998

### ***Professional Offices***

Editorial Board - Addison-Wesley Publishing Company, SIGGRAPH Computer Graphics Books Series, 1993-present  
 Member – ACM-SIGGRAPH Pioneers, 2003-present  
 Member - SIGGRAPH 2000 Conference Panels Committee, 1999-2000  
 Member - SIGGRAPH 96 Conference Courses Committee, 1995-1996  
 Courses Chair - SIGGRAPH 95 Conference Planning Committee, 1994-1995  
 Member - SIGGRAPH 94 Conference Courses Committee, 1993-1994  
 Member - ACM SIGGRAPH Nominating Committee, 1996-1999  
 Vice Chair - ACM SIGGRAPH Executive Committee, 1992 -1993  
 Director - ACM SIGGRAPH Executive Committee, 1990-1992  
 Panel Member - ACM SIG Discretionary Fund Review Committee, 1990-1992  
 Content Development Team - PBS/ Annenberg Foundation Visumap Project, 1985-87

***Juries and Panels***

Reviewer - *Funding Agencies* - NSF, AFOSR; *Journals* - CACM, SIGGRAPH, Computer-Aided Design, IEEE Computer Graphics & Applications, Journal of Rehabilitation and Research;

*Publishing Companies* - Prentice-Hall, West Publishing, Addison-Wesley, Van Nostrand-Reinhold  
 Chair – 1992, 1993, 1996, 1997, 1998, 1999, 2000, 2001, and 2002 SIGGRAPH Tutorial - *Fundamentals of 3D Computer Graphics*

Co-Chair - 1990, 1991 SIGGRAPH Tutorial - *Generation of 3D Data for Image Synthesis*

Jury Member - 1990 SIGGRAPH Art Show (Film and Video submissions)

Jury Member - 1990 SIGGRAPH Electronic Theatre Film and Video Show

Co-Chair – 1987 SIGGRAPH Panel - *How to Manage a Computer Graphics Facility*

Jury Member - 1986 SIGGRAPH Electronic Theatre Film and Video Show

**PROFESSIONAL MEMBERSHIPS**


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Institute for Electric and Electronic Engineers (IEEE) Computer Society

Industrial Design Society of America (IDSA), American Institute for Graphic Arts (AIGA), College Art Association (CAA)

Eurographics, Ohio Academy of Science, Mathematics Association of America

Association for Computing Machinery (ACM) — SIGCSE (Computer Science Education),  
 SIGGRAPH (Graphics and Interactive Techniques, SIGMM (Multimedia)

**RESEARCH GRANTS*****Coordinator***

The Ohio State University Office of Research, University Targeted Interdisciplinary Seed Grant Program for “Image Technology Research Focus Area,” (with Prof. Peter Culicover - Center for Cognitive Science), January 1, 1997 - July 31, 1998, \$300,000 competitively given to interdisciplinary research teams.

***Principal Investigator***

Battelle Endowment for Technology and Human Affairs for “Design & Society: Technology, the Environment, and Societal Impact – A Public Lecture Series,” July 1, 2005 - June 30, 2006, \$43,950.

The Ohio State University Office of Technology Enhanced Learning and Research, Faculty Collaboration Grant for “History of Digital Design”, July 2003, \$9,000

MCS Medical for “3D modeling of the labyrinth of the inner ear”, Sept. 2002, \$2,500

The Ohio State University Office of Technology Enhanced Learning and Research, Faculty Innovator Grant for “Digitizing video for use in an online course in computer graphics history”, Sept. 2001, \$1,000

The Ohio State University Office of Alumni Affairs for “The Heritage Project”, January 2000 - March, 2001, \$34,000.

Battelle Endowment for Technology and Human Affairs for “Exploring Contemporary Art and Music: Interactive CD-ROM”, July 1, 1998 - June 30, 1999, \$25,000.

Columbus Museum of Art for “Eye Spy - Installations for Museum Education”, January 1998 - November

1998, \$45,000.

The American New Media Educational Foundation for "Multimedia Approaches to the Teaching of the Legislative Process at the Elementary Level", March 1, 1997 - December 31, 1997, \$15,000.

The American New Media Educational Foundation for "Connecting Students to the Political Process Through the Use of Technology", September 1, 1996 - July 31, 1997, \$15,000.

The Ohio State University Office of Business and Administration for "The Personal Safety Screensaver CD", July 1996 - December, 1996, \$13,000.

The Ohio State University Office of Research and Graduate School, Interdisciplinary Seminar Series Award, "Intellectual Property, Copyright Law and Fair Use Doctrines: Issues in Electronic Storage and Dissemination of Information", \$5,000. (Additional funds of \$1,000 were raised through a private solicitation)

The American New Media Educational Foundation for "The Use of Technology in Enhancing Social Studies Proficiency", January 1, 1996 - June 30, 1996, \$10,000.

The Ohio State University Academic Enrichment Funds for A Visual Arts Computing Lab, July, 1995, \$83,781.04.

American Gas Association Laboratories for "Kitchen Ventilation Visualization", December 15, 1994 - March 30, 1995, \$30,000.

The Ohio State University Academic Enrichment Funds for The Emerging Technologies Studio, July, 1994, \$125,000.

New Media Centers Consortium for "The Emerging Technologies Studio – a Center for the Study of New and Emerging Media Technologies", Awarded March, 1994.

The Greater Columbus Arts Council for "The Role of Computer Graphics Technology in the Human Perception of Reality", March 1, 1993 - April 30, 1995, \$5,000.

Battelle Endowment for Technology and Human Affairs for "The Role of Computer Graphics Technology in the Human Perception of Reality", March 1, 1993 - April 30, 1995, \$46,940.

American Gas Association Laboratories for "Kitchen Ventilation Visualization", December 15, 1993 - December 15, 1994, \$80,000.

American Gas Association Laboratories for "Kitchen Ventilation Visualization", December 15, 1992 - December 15, 1993, \$60,000.

Advanced Research Projects Agency (ARPA) (subcontract with the University of Hawaii Research Corporation) for "ACTS and Supercomputing in Remote, Cooperative Medical Triage Support and Radiation for Treatment Planning", Subcontract under Grant # DABT63-93-C-0056, 1993 - 1997, \$3,376,815 (Subcontract amount - \$613,349).

Advanced Research Projects Agency (ARPA) for "Online Steering of Scientific Simulations Using the NASA ACTS", Grant # DABT63-91-C-0033, 1991 - 1996, \$1,487,765.

Center of Science and Industry (COSI) for "Interactive Science Museum Installations", October, 1992 - December, 1993, \$33,000.

American Gas Association Laboratories for "Kitchen Ventilation Visualization", November 15, 1991 - November 15, 1992, \$60,000.

The Ohio State University Office of Research, Special Research Award, Research Equipment for Multimedia Studies, \$3,000.

The Ohio State University Office of Research and Graduate Studies, University Seed Grant for "Geometric

and Temporal Modeling Approaches for Computer Graphic Visualization of Crack Propagation in Polycrystalline Materials”, April 1, 1991 - March 30, 1992, \$14,490.

General Electric Aircraft Engine Group for “Advanced Engine Graphical Analysis”, April 1, 1991 - November 30, 1991, \$25,000.

General Electric Aircraft Engine Group for “Advanced Engine Graphical Analysis”, April 1, 1990 - November 30, 1990, \$21,500.

General Electric Aircraft Engine Group for “Advanced Engine Graphical Analysis”, April 1, 1989 - November 30, 1989, \$18,500.

General Electric Aircraft Engine Group for “Advanced Engine Graphical Analysis”, April 1, 1988 - September 30, 1988, \$9,618.

### ***Co-Principal Investigator***

U.S. Army Research Laboratory (subcontract with Micro Analysis and Design Inc, contract DAAD19-01-2-0009) for “Advanced Decision Architectures: Building information superiority in the Army through user-centered decision support” (with David Woods, Philip Smith, B Chandrasekaran, Nadine Sarter, Emily Paterson and Gary Allread), June 1, 2001 - September 30, 2005, Total grant \$600,000, Co-PI portion \$149,972.

Office of Academic Affairs Technology in Instruction Program, Continuing and Expansion Grant Program for “Virtual Theatre”, (with the Department of Theatre), July 1, 2001 - June 30, 2002, \$18,480

Battelle Endowment for Technology and Human Affairs for “The Construction of an Interactive Computer Program for Finger spelling in American Sign Language”, (with Dr. Brian Rotman), July 1, 1999 - June 30, 2000, \$49,285.

Battelle Endowment for Technology and Human Affairs for “Ethics and Virtual Reality”, (with Dr. Carol Gigliotti,) July 1, 1997 - June 30, 1998, \$41,200.

The U.S. Department of Veterans Affairs for “OVATN - Ohio Veterans Administration Telehealth Network: The FAST Lab”, (with Prof. Noel Mayo, Department of Industrial, Interior and Visual Communication Design), February 10, 1997 - December 31, 1997, \$344,648.

Ameritech Distance Learning Application Program for “Research and Development of a Community-Wide Distance Learning System Connecting Five Columbus Arts Organizations, The Columbus Public Schools, and The Ohio State University”, (Member of the The Ohio Arts and Education Distance Learning Consortium), January 1, 1996 - December 31, 1996, \$76,600.

Ameritech Fellowship Program, “SimSchool: Modeling Future Alternatives for Campus/Network Development”, (with Prof. Paul Young), September 1, 1995 - August 31, 1996, \$20,000.

National Science Foundation for “Educating the Growing Network Operations Work Force”, (with Dr. Charles Bender), Grant # NCR-9221054, July 1, 1993 - November 30, 1995, \$155,813.

Ohio Aerospace Institute for “Automatic Mesh Generation for Computational Fluid Dynamics in Virtual Environments”, (with Dr. Shoichiro Nakamura), Grant # OAI/CCRP-94-2-001, November 14, 1994 - December 31, 1994, \$30,000.

The Department of Education, National Institute for Disability Research and Rehabilitation for “The Determination of Environmental Accessibility and Wheelchair User Proficiency through Virtual Simulation”, (with Dr. Sheldon Simon), 1993 - 1998, \$700,000 per year (Co-Principal Investigator portion - \$33,154 per year).

***Software/Hardware Grants***

OSU Office of Research and Office of Academic Affairs for motion capture and digital video research equipment, 2000, \$457,000

OSU Office of Research for research workstations, 1999, \$54,000

Alias/Wavefront for Alias Maya site license, 1999, \$6,250,000 (with Maria Palazzi)

Autodesk for form•Z site license, 1997, \$25,000

PIXAR, Inc. for RenderMan site license 1997, \$100,000

Alias/Wavefront for Alias site license, 1996, \$250,000

Interactive Effects, Inc. for Amazon site license, 1996, \$50,000

Side Effects Software, Inc. for Houdini site license, 1996, \$200,000

Silicon Graphics, Inc. for SGI Personal Iris graphics computer, 1995, \$35,000

Cranel Inc. for HP Optical Disk juke boxes, 1995, \$75,000

**SELECTED PRESENTATIONS*****Local***

“Frank L. Packard – A discussion of the work of a prolific Craftsman architect”, various venues, 2001 – present.

“A Concise History of Computer Graphics and Animation,” CSCC Lifelong Learning Institute, July 2007.

“Techniques and Approaches to Computer Art,” invited presentation to the School for Older Wiser Lifelong Scholars (OWLS), Westminster-Thurber Community, October 2003.

“Computer Art - What It Is and What It Might Become,” (with Charles Csuri), invited lecture to the Columbus Museum of Art Sessions Society, March, 2001.

“Solving the Unsolved Problems in Computer Graphics,” invited lecture to the Design Group’s annual Virtual Design Symposium, November, 2000.

“Digital Actors,” invited lecture to the OSU Alumni Association Class of 1949 reunion, June 1999.

“Crossing the Stratified Boundaries: Interdisciplinarity at ACCAD,” invited lecture to the Austin Knowlton School of Architecture Spring Colloquium Series, May, 1997.

“Teaching Civics with Emerging Technologies,” presentation to the annual conference of the Ohio Education Association, Columbus, Ohio, February, 1997.

“Interdisciplinary Research: Art Meets Science,” invited lecture to the 1996 Sigma Xi Annual Meeting, Columbus, Ohio, December, 1996.

“Instructional Technology and its Role in Managing Change,” invited presentation to Managing Change: reSource 15 Year Celebration, Wexner Center for the Arts, November, 1996.

“SimUniversity: Planning the University Campus in the Age of Telecommunications,” Finding Our Way ‘96 – Technology and Education: Extending Frontiers of Learning Through Co-development, Center for Advanced Studies in Telecommunications Research Forum, Columbus, Ohio, June, 1996.

“Emerging Technologies: Interdisciplinary Challenges and Opportunities,” invited Feature Presentation, BASA/OSBA Spring Academy, Buckeye Association of School Administrators Annual Conference,

Columbus, Ohio, March, 1996.

"The Use of the Home Personal Computer in the Education of Children," invited lecture to The Ohio State University Women's Club - Child Development Special Interest Group, November, 1995.

"Computer Animation," invited lecture, Cutting Edge Technologies - Central Ohio Technology Day, DeVry Institute of Technology, March, 1994.

"Computer Graphics and Animation," invited lecture to Technology and Postmodern Culture, a program of the Center for Interdisciplinary Studies in Art and Design, The Wexner Center for the Arts, The Ohio State University, October, 1993.

"Computer Graphics: Today and in the Future," invited lecture to the Interdisciplinary Symposium of the Center for Mapping, The Ohio State University, May, 1993.

"Scientific Visualization," invited lecture, The OSU Department of Physics Colloquium, The Ohio State University, April, 1993.

"Computer Animation in Film and Video," Silver Image Gallery, The Department of Photography and Cinema, The Ohio State University, November, 1990.

### *National*

"Coupled Forecasting Using the NASA ACTS," invited Plenary Session presentation to the NASA ACTS Results Conference, Cleveland, September, 1995.

"Academic Preparation for a Career in Computer Animation and Special Effects Production," Panel Member, ACM SIGGRAPH 1995 Conference, Los Angeles, August, 1995.

"Computer Graphics and Animation," invited lecture to Cultural Programs Seminar Series, The Ohio State University at Lima, April, 1994.

"The Role of Animation in Scientific Visualization," invited lecture, The Ohio University Department of Physics Colloquium, Ohio University, November, 1993.

"Fundamentals of Computer Graphics," Chair, ACM SIGGRAPH 1992 and 1993 Conference Tutorials, Chicago and Anaheim, 1992 and 1993.

"The Generation of 3D Data for Computer Image Synthesis," Co-Chair, ACM SIGGRAPH 1990 and 1991 Conference Tutorials, Dallas and Las Vegas, 1990 and 1991.

"Preparing for the Future - Computer Graphics Education," Panel Member, ACM SIGGRAPH 1989 Conference, Boston, August, 1989.

"The Design of Museum Displays Using the Digital Computer," American Museum Association Annual Meeting, New York, June, 1986.

"Computer Graphics / Animation Showcase for Film and Video," Session Moderator and Speaker, Visual Communications Congress, Atlanta, March, 1986.

"Computer Animation and its Uses in Interactive Museum Displays," invited lecture to the National Geographic Society, Washington, DC, March, 1986.

"Animation in Medicine and Industry," Comgraf Design '85 East, Pratt Institute of Computer Graphics, New York, May, 1985.

"Computer Graphics and Animation in Industrial Design," Keynote Presentation, Mideast Regional

Conference, Industrial Designers Society of America, June, 1984.

"Animation and Simulation," Visual Dynamics Showcase '83, ACM SIGGRAPH, Los Angeles, November, 1983.

"Computer Graphics and Mathematical Simulation," Keynote Address, Mathematics Association of America, Columbus, Ohio, June, 1981.

### *International*

"Interdisciplinary Activity at a Comprehensive Research University," invited lecture to the University of British Columbia, Simon Fraser University and the Edith Carr Institute of Art and Design, Vancouver, BC, March, 2001.

"Technology and Research in the Arts - The Intelligent Classroom," Plenary Session panel presentation to the 32nd Annual Conference of the International Council of Fine Arts Deans, Montreal, Quebec, November, 1995.

"Computer Animation in Design, Entertainment, Advertising, and Education," Keynote Presentation, The International Conference on Intelligent Computer-Aided Design, held at The Ohio State University, October, 1991.

"Software Development in Computer Animation," Parigraph '85, Paris, France, March, 1985.

"Animation and Computer Generated Special Effects," Convergence Forum on the New Film/Video Technology, Montreal, Canada, November, 1984.

"Computer-Aided Design - Automotive, Architecture, and Fashion," Forum International des Nouvelles Images, 24th Festival International de Television de Monte Carlo, February, 1984.

"Computer Animation in the United States," Keynote Address, 10th Australian Computer Conference, Melbourne, Australia, September, 1983.

### **EXHIBITIONS AND SYMPOSIA**

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Co-designed and organized a symposium called "Animation Celebration" to honor OSU graduates in computer graphics and animation careers, Ohio State University, May 1999.

Designed and organized a symposium for the OSU Interdisciplinary Seminar Program entitled "Protecting Intellectual Property Rights and Copyright in the Electronic World: Issues in Electronic Storage and Dissemination of Information," The Wexner Center for the Arts, Columbus, Ohio, May, 1997.

Expanded Visions: Art & Technology, The Schumacher Gallery, Capital University, Columbus, Ohio, January, 1997.

Scenes from the New Continent, Lima Campus Show, The Ohio State University - Lima Campus, Lima Ohio, November, 1996.

Curated and organized "The Processing of Perception," a concurrent, multi-site international computer art and interactive installation exhibition, The Wexner Center for Contemporary Arts, Ohio's Center of Science and Industry, The Martin Luther King Cultural Arts Complex, Columbus, Ohio, April 6-30, 1995.

Designed and implemented interactive installations for "Liquid Vision - Lasers, Holograms, and Virtual Reality," a traveling exhibition sponsored by Ohio's Center of Science and Industry. Exhibition has been in residence at COSI -Columbus, California Museum of Science and Industry - Los Angeles, Franklin Institute of Science - Philadelphia, Museum of Science and History - Fort Worth, Science Museum of Minnesota - St. Paul, Science Museums of Charlotte, Museum of Science - Boston, and Museum of Science and Industry - Chicago (1993-1996).

## PUBLICATIONS

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### *Books and Book Chapters*

Carlson, W. *Between the Rivers: The Story of Grandview Heights and Marble Cliff*. Infinity Publishing, 2005. 136 pages. ISBN 0-7414-2748-6

S.B. Grissom, W.E. Carlson and G. Perlman. "Tablet-Based Valuator: A Comparison of Virtual Buttons and Hand Gestures for Interactive Computer Graphics," *Advances in Human Factors & Ergonomics, VIZA-Work with Computers: Organizational, Management, Stress and Health Aspects*, ed. Garriel Salvendy and Michael J. Smith, Elsevier, Amsterdam, 1989, pp. 476-483.

Carlson, W. *3D Modeling and Database Construction, CG&CAD/CAM Curriculum Research and Development Group*, Tokyo, Japan, August, 1988, 74 pages.

Carlson, W. "Computer Graphics," in *For All Practical Purposes - Introduction to Contemporary Mathematics*, edited by Solomon Garfunkle and Lynn Steen, W.H. Freeman & Co, NY, January, 1988, Chapter 21, pp. 395-413.

### *Reviewed Journals or Proceedings*

Stredney, Don, Yagel, Roni, Carlson, Wayne, Moeller Torsten, Shih PW, and Mark Fontana. "Assessing User Proficiency Through Virtual Simulations," Proceedings of RESNA '97, annual meeting of the Rehabilitation Engineering and Assistive Technology Society of North America, Pittsburgh, Pennsylvania, June 20-24, 1997, pp 366-368.

Scheepers, Ferdi, Richard Parent, Wayne Carlson, and Stephen May. "[Anatomy-based Modeling of the Human Musculature](#)," SIGGRAPH 97 Conference Proceedings, January, 1997.

David Y. Yun, Hong-Mei C. Garcia, Seong K. Mun, James E. Rogers, Walid G. Tohme, Wayne E. Carlson, Stephen May, and Roni Yagel. "Three Dimensional Volume Visualization in Remote Radiation Treatment Planning", Proceedings of the IS&T/SPIE Symposium on Electronic Imaging: Science and Technology, Visual Data Exploration and Analysis III, The International Society for Optical Engineering, IS&T/SPIE Proc. 2656, February, 1996.

Wayne E. Carlson and Arun Welch. "[The Design of a High-Speed Network for Distributed Coupling of Scientific Simulation Models Using the NASA ACTS](#)," Proceedings of the 16th International Communications Satellite Systems Conference, Washington DC, February, 1996.

- David M. Reed, Lawson Wade, Peter G. Carswell, and Wayne E. Carlson. "Particle Tracing in Curvilinear Grids," Proceedings of the IS&T/SPIE Symposium on Electronic Imaging: Science and Technology, Visual Data Exploration and Analysis II, The International Society for Optical Engineering, IS&T/SPIE Proc. 2410, February, 1995, pp 120-128.
- Stredney Don, Carlson Wayne, Swan JE, and Blostein Beth. "[The Determination of Environmental Accessibility and ADA Compliance through Virtual Wheelchair Simulation](#)," *PRESENCE - Journal of Teleoperators and Virtual Environments*, V4, #3, Summer 1995, pp 297-305.
- Carlson, W., D. Stredney, E. Swan and B. Blostein "The Application of Virtual Wheelchair Simulation to the Determination of Environmental Accessibility and Compliance in Architectural Design," *Proceedings of the 7th International Conference on Systems Research, Informatics and Cybernetics*, Baden-Baden, Germany, August, 1994.
- Stredney Don, Carlson Wayne, Swan JE, and Blostein Beth. "The Determination of Wheelchair User Proficiency and Environmental Accessibility Through Virtual Simulation," *Proceedings of the Conference on Virtual Reality and Persons with Disabilities*, San Francisco, June, 1994.
- David S. Ebert, Wayne E. Carlson and Richard E. Parent. "Solid Spaces and Inverse Particle Systems for Controlling the Animation of Gases and Fluids," *The Visual Computer*, V10, #2, November, 1993.
- Rosenblum, Rob, Wayne Carlson, and Ed Tripp. "[Simulating the Structure and Dynamics of Human Hair: Modelling, Rendering and Animation](#)," *The Journal of Visualization and Computer Animation (Special Issue on Facial Animation)*, V2, #4, October, 1992, pp141-148.
- Kent, James, Wayne Carlson and Richard Parent. "[Shape Transformation for Polyhedral Objects](#)," *Computer Graphics*, V26, #2, July, 1992, pp 47-54.
- Kent, J, Parent, R. and Carlson, W. "Establishing Correspondences by Topological Merging: A New Approach to 3-D Shape Transformation," *Graphics Interface '91*, Calgary, Alberta, Canada, June, 1991.
- Carlson, W. "A Survey of Computer Graphics Image Encoding and Storage Formats," *Computer Graphics*, V24, #2, April, 1990, pp 17-36.
- Carlson, W. "[An Algorithm and Data Structure for Three Dimensional Object Synthesis Using Surface Patch Intersections](#)," *Computer Graphics*, V16, #3, July, 1982, pp. 255-264.
- Carlson, W. "An Advanced Data Generation System for Use in Complex Object Synthesis for Computer Display," *Proceedings of Graphics Interface '82*, Toronto, Canada, May, 1982, pp. 197-204.
- Wayne Carlson, Robert Marshall, and Rodger Wilson. "[Procedure Models for Generating Three Dimensional Terrain](#)," *Computer Graphics*, V14, #2, July, 1980, pp. 154-161.
- C. Csuri, R. Hackathorn, R. Parent, W. Carlson, M. Howard. "Towards an Interactive High Visual Complexity Animation System," *Computer Graphics*, V13, #2, August, 1979, pp. 289-299.

**Unreviewed Conference Proceedings**

- Wayne Carlson, Keith Bedford, etal. "[Visualization of Results from Distributed, Coupled, Supercomputer-Based Mesoscale Atmospheric and Lake Models using the NASA ACTS.](#)" Proceedings of the NASA Results Conference, Cleveland Ohio, September, 1995, pp HDR6/1-9.
- Wayne Carlson, Whalid Thome, etal. "The NASA Advanced Communications Technology Satellite: The MISSION Project," Proceedings of the NASA Results Conference, Cleveland Ohio, September, 1995, pp HDR8/1-13.
- P. Carswell, W. Carlson, D. Reed, L. Wade and W. Seun "Visualization of Air Flow in Commercial Kitchen Environments," Ohio Journal of Science, V94, #2, April, 1994.
- W. Carlson, D. Stredney, E. Swan, E. Sindelar and C. Hayes "Simulation of Virtual Environments for Use in Wheelchair User Proficiency," Ohio Journal of Science, V94, #2, April, 1994.
- W. Carlson, R. Yagel, S. May, S. Spencer, D. Stredney and C. Bender "Remote Diagnosis Using Volume Visualization of Satellite Transmitted Medical Data," Ohio Journal of Science, V94, #2, April, 1994.
- Carlson, W. "Fundamentals of Computer Graphics Software," SIGGRAPH 93 Tutorial Notes, Fundamentals of Computer Graphics, August, 1993, pp 1-51.
- Carlson, W. "Three Dimensional Data Modeling", SIGGRAPH 90 Tutorial Notes, Generation of Three-Dimensional Data for Computer Image Synthesis, August, 1990, pp 4-92.
- Carlson, W. "[An Environment for a Graduate Curriculum in Computer Graphics](#)," *SIGCSE Bulletin*, V22, #2, June, 1990, pp 15-20.
- Carlson, W. "Preparing for the Future," *Siggraph 89 Panel Proceedings*, Boston, August, 1989, pp. 309-347.
- Carlson, W. "Overview of Computer Graphics State of the Art in Industrial Animation," *Proceedings of the 10th Australian Computer Conference*, Melbourne, Australia, September, 1983.
- Carlson, W. "The Use of Color and 3-D Temporal and Spatial Data Management Techniques in Computer-Aided Design," *Proceedings of the 16th Annual International Design Automation Conference*, San Diego, June, 1979, pp. 32-38.
- Carlson, W. "A 3-D Color Graphics System for Interactive Analysis in Computer-Aided Design," 1979 ACM Computer Science Conference, Dayton, Ohio, February, 1979.

**Technical Reports**

- S. May, F. Phillips, W. Carlson and F. Scheepers. "AL: A Language for Procedural Modeling and Animation," Technical Report OSU-ACCAD-12/96-TR5, OSU-ACCAD-1/96/TR1, The Ohio State University, Advanced Computing Center for the Arts and Design, 1996.
- F. Scheepers, R.E. Parent, W. Carlson and S.F. May. "A Procedural Approach to Modeling and Animating the Skeletal Support of the Upper Limb," OSU-ACCAD-1/96/TR1, The Ohio State University, Advanced Computing Center for the Arts and Design, 1996.
- W. Carlson, S. Spencer, M. Geroch, M. Lewis, K. Bedford, D. Welsh, J. Kelley, and A. Welch.

- "Visualization of Results from Distributed, Coupled Supercomputer-Based Mesoscale Atmospheric and Lake Models Using the NASA ACTS," OSU-ACCAD-7/95-TR1, The Ohio State University, Advanced Computing Center for the Arts and Design, 1995.
- D. Reed, L. Wade, W. Carlson and P. Carswell. "Particle Tracing in Curvilinear Grids," OSU-ACCAD-6/94/TR1, The Ohio State University, Advanced Computing Center for the Arts and Design, 1994.
- S. Raghavachary and W. Carlson. "Use of Quasi-crystalline Symmetries in Architectural Design," OSU-ACCAD-12/93/TR8, The Ohio State University, Advanced Computing Center for the Arts and Design, 1993.
- P. Carswell, W. Carlson, D. Reed, W. Seun, and L. Wade . "kitchenVIEW™ : an Interactive Interface to Heat Flow Solutions in Commercial Kitchens," OSU-ACCAD-1/93/TR4, The Ohio State University, Advanced Computing Center for the Arts and Design, 1993.
- Wayne Carlson, Keith Bedford and Alison Brown "On line Steering of Scientific Simulations using the NASA ACTS," OSU-ACCAD-1/93/TR3, The Ohio State University, Advanced Computing Center for the Arts and Design, 1993.
- W. Carlson, R.E. Parent, D. Ebert, and K. Boyer . "EDGE - Educational and Development Graphics Environment," OSU-CISRC-1/90-TR3, The Ohio State University, Department of Computer and Information Science, 1990.
- Wayne Carlson and Richard Parent. "[Recoverable Compression Techniques for Storing and Transferring Computer Graphics Images](#)," OSU-CISRC-1/90-TR2, The Ohio State University, Department of Computer and Information Science, 1990.
- Wayne Carlson and R. E. Rosenblum . "[The Use of RGB Image Properties to Determine Optimal Compression Formats](#)," OSU-CISRC-2/89-TR7, The Ohio State University, Department of Computer and Information Science, 1989.
- Carlson, W. "Techniques for the Generation of Three Dimensional Data for Use in Complex Object Synthesis," The Ohio State University Research Foundation, December, 1982.
- Carlson, W., R. Parent and C. Csuri "Interactive Color Video Graphics (An Experimental 3-D System for Computer-Aided Design)," Air Force Office of Scientific Research Technical Report, September, 1978.

## OUTREACH

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### SIGGRAPH Pioneers Mentoring Program

Project Dates: 2003 – present — Mentoring of high school kids for careers in computer graphics and animation

Website: <http://www.siggraph.org/programs/pioneers/student-participation/>

### Grandview Heights Public Schools MathCounts

Project Dates: 2000 – 2003 — Mentor and coach of MathCounts competition team

## F.I.R.S.T.

Project Dates: 1998-2002 — Joint project with AEP, OSU, and Grandview High School. To provide engineering and design coaching and mentoring for a team of high school students. Coached team for national competition. Students participate in a National Competition in Design and Engineering.

Grandview Heights Public Schools Strategic Planning Team

Project Dates: 1998 – 2001 — To provide direction for integration of technology into curriculum.

## GRADUATE STUDENT COMMITTEES

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### *PhD Advisor and Dissertation Committee Chair*

Michele Dickey - *3D Virtual Worlds and Learning: An Analysis of the Impact of Design Affordances in Active Worlds, Blazzun Interactive, and Onlive! Traveler; and a Study of the Implementation of Active Worlds for Formal and Informal Education* (1999) - Educational Policy and Leadership (Co-Advisor with Dr. John Belland)

Stephen May - *Encapsulated Models: A Paradigm for Procedural Modeling and Animation* (1998) - CIS

Jin Won Choi - *The Design and Implementation of a Multimedia Information and Authoring System for Teaching and Learning Architectural History and Theory* (1995) - Art Education

Keith Shomper - *Visualizing Program Variable Data for Debugging* (1993) - CIS

Scott Grissom - *Approaches to Analysis of 3D Graphics Systems* (1993) - CIS

James Kent - *Techniques for Transforming Shape* (1992) - CIS

Wayne Brown - *Interactive Constraint-Based Conceptual Design* (1989) - CIS

### *Masters Thesis/Project Advisor and Committee Chair*

Michael Altman - *The Film Look: Achieving a Classical 1950s Cinematic Look for 3D Rendered Imagery*, (2004) – MFA Industrial, Interior and Visual Communication Design

Bradd Birmingham – *Product Design Pre-visualization Using a Video Game Engine*, (2004) - MFA Industrial, Interior and Visual Communication Design

Ja-Young Sung – *Survey of Repetitive Strain Injuries in the Computer Graphics Industry: The Importance of Awareness*, (2004) ) - MFA Industrial, Interior and Visual Communication Design

Brock Stearn – *Designing a Pipeline for Product Designers Using Image Based Illumination and High Dynamic Range Imagery to More Effectively Add Computer Generated Product Visualizations Into Live Action Photographs* (2003) - MFA Industrial, Interior and Visual Communication Design

Xie, Luo - *Using a 3D Game Engine to Create Instructional Environments in Design and Education* (2003) - MFA Industrial, Interior and Visual Communication Design

Hanning Chen – *Empower the Designer: Fundamental Knowledge of Science and Technology to Help the Designer* (2003) - MA Industrial, Interior and Visual Communication Design

Erik Mindek - *The Use of the Video Game Engine in Interior Space Design - Spatial Pre-visualization Layout and*

- Training* (2002) - MFA Industrial, Interior and Visual Communication Design
- Anindita Sunder - *Effective Communicative Intent in the Design of Web Sites - "Crafting the User Experience": Design of a Web-based Instructional Course* (2001) - MFA Industrial, Interior and Visual Communication Design
- Julie Apley - *A Virtual Reconstruction: The Isthmia Roman Bath* (2001) - MFA Industrial, Interior and Visual Communication Design
- Charlotte Belland - *Optimizing Interactive Animation - Can Sound Substitute for Inbetween Frames?* (2000) – MFA Industrial, Interior and Visual Communication Design
- Heesung Koo - *Web Interplay: A Children's Web Browser Interface Design* (2000) - MFA Industrial, Interior and Visual Communication Design
- Janice Braverman - *Fotofusion* (2000) - MFA Industrial, Interior and Visual Communication Design, MFA Art
- T. Shea Tillman - *A Study of the Visual Communication of Products Through the World Wide Web* (1999) - M.A. Industrial, Interior and Visual Communication Design
- Susan Strohl - *Helping Non-Profits Compete: Exploring Cost-Efficient Visual Communication Tools for the Rails-to-Trails Conservancy* (1999) - M.A. Industrial, Interior and Visual Communication Design
- Melissa Kupper - *Use of Encapsulated Modeling in the Product Design Process* (1998) - M.A. Industrial, Interior and Visual Communication Design
- Rhonda Hathcock - *Personalized Health Education for Cancer Patients and Their Caregivers Through Interactive Computer Design* (1998) - M.A. Industrial, Interior and Visual Communication Design
- Tom Coggia - *A Stereographic Primer for Visual Communications* (1998) - M.A. Industrial, Interior and Visual Communication Design
- Sumit Bhandari - *Information Perception in Digital Media: Designer Client Interaction and Digital Media Communication in Design Decision Making* (1997) - M.A. Industrial, Interior and Visual Communication Design
- Diane Holbrook - *Interactive Multimedia Research Proposal Submission* (1998) - M.A. - Industrial, Interior and Visual Communication Design
- Brett Ingram - *Evaluation Methods Used in the Design Process of an Interactive Media Program and Their Resultant Design Guidelines* (1997) - M.A. - Industrial, Interior and Visual Communication Design
- Ahmgad Saleh - *Multiple Levels of Detail Using Spatial Decomposition*, (1997) - M.S. - CIS
- Hae-jeon Lee - *The Real-time Interface Design for Three-dimensional Modeling System Environments* (1996) – M.A. - Industrial, Interior and Visual Communication Design
- Sara Susskind - *The Use of Physically Based Simulation to Model the Animation of Branching Structures* (1996) – M.S. - CIS
- Traci Temple - *Welcome to Short Term Surgery - An Interactive Multimedia Computer Program for Pediatric Patient Education* (1996) - M.A. - Industrial, Interior and Visual Communication Design
- Muqem Khan - *Real Time Interactive Computer Displays* (1996) - M.A. - Industrial, Interior and Visual Communication Design

- Beth Blostein - *Procedural Generation of Alternative Formal and Spatial Configurations for Use in Architecture and Design* (1995) - M.A. - Industrial, Interior and Visual Communication Design
- Bren Bataclan - *Documentation of a Pilipino Folk Song Animation Utilizing Computer Graphics Technology and Visual Communication Principles* (1995) - M.A. - Industrial Design
- Rob Rosenblum - *A Technique for Rendering and Animating Human Hair* (1990) - M.S. - CIS
- Saty Raghavachary - *Fracture Generation on Arbitrary Surfaces Using Voronoi Polygons* - (1992) - M.S. - CIS
- Dariusz Bolski - *Computer-Aided Cooperative Education and Training* (1992) - M.A. - Art Education

#### **PhD Dissertation Committee Member**

- Traci Temple, - *Influences of Visual Culture in the Design of Web-Based Art Education Instruction: Using Content Analysis for Interpreting Research and Student Opinions to Reconsider Interactive Design*, (2005) Art Education
- Andrew Bac - *A Case Study of Implementing Computer Graphics Technology for a Visual Arts Program in a Small College: A Descriptive Record of Historical Developments and Procedures from Initiation to Realization* (2001) Art Education
- Scott King - *Facial Animation Using Speech Recognition* (2001) - CIS
- Lawson Wade - *Using Anatomical Knowledge in the Automatic Generation of Control Skeletons for Human and Animal-like Figures* (2000) - CIS
- Kaizaad Kotwal - *Variations of Virtual Reality in Theatre and Film: Truth and Illusion via Art and Technology* (2000) - Department of Theatre
- Li-yan Wang - *Teaching Art in the Age of Technological Change* (2000) - Department of Art Education
- Lorraine Justice - *The Effect and Affect of Animated Visual Cues within the Computer-based Learning Environment* (1999) - Department of Communications
- Thomas Philleo - *The Effect of Three-dimensional Computer Microworlds on the Spatial Ability of Pre-Adolescents* (1997) - School of Educational Policy and Leadership, College of Education
- Markus Kruse - *Museums, Galleries, Art Sites, Virtual Curating and the World Wide Web* (1997) - Art Education
- David Reed - *Interactive Volume Rendering and Deformation for Surgery Simulation* (1997) - CIS
- Bill Woodard - *Technological Abductions: A Preliminary Investigation into the Effects of Digital Technology on Artists and Their Arts* (1996) - Art Education
- Rina Wayanti, *Interactive Multimedia Animation Instruction for Teaching Western Animation* (1997) - Art Education
- Coenraad Scheepers - *Anatomy-Based Surface Generation for Articulated Models of Human Figures* (1996) - CIS
- Karansher Singh - *Realistic Human Figure Synthesis and Animation for Virtual Reality Applications* (1995) - CIS
- Erika Galvao - *Developing a Framework for Understanding Computer Generated Imagery* (1995) - Art Education
- Rebecca Denning - *The Biology Sleuth: The Development and Evaluation of an Interactive Learning Environment* (1994) - Industrial Systems Engineering

Kevin Rodgers - *Physical Simulation of Cloth* - CIS

David Miller - *The Generation of Human-like Reaching Motion for an Arm in an Obstacle-Filled 3D Static Environment* (1993) - CIS

David Ebert - *Solid Spaces: A Unified Approach to Describing Object Attributes* (1991) - CIS

Michael Stovsky - *A Framework and Environment Supporting Software Component Reuse for Teams of Developers* (1990) - CIS

Michael Girard - *The Computer Animation of Legged Animals: Simulation, Design and Control* (1989) - CIS

David Haumann - *Using Behavioral Simulation to Animate Complex Processes* (1989) - CIS

James Hahn - *The Use of Simulation Techniques for Motion Control of Rigid Bodies in Computer Graphics* (1989) – CIS

***MFA Committee Member***

Hsuen Hwa Seun - Art

Nanette Wylde - Art

Kevin Geiger - Art

David Kaul - Art

Nathania Vishnevsky - Art

John Warren - Art

Janet LuCroy - Art

Janice Braverman - Art and Design

Charlotte Belland - Design

Sonia Oster - Design

Wooksang Chang - Art

Peter Gerstmann – Design

Deepak Menon – Design

Agata Bolska - Design

Dan Schellenbarger - Art

David Sugar – Design

Dan Lu – Art

Eunkyong Lee – Art

Frank Dodd – Design

Shana Burns – Design

Keith Kelly – Design

Heather Caprette - Design

Beth Albright – Design

Merce Grae-Colas - Design

***Masters Thesis Committee Member***

Wayne Hoit, David DeLeon, Tony LeClerc, Stephen Spencer, Marc Sarrell, Julie Crist, Beth Hofer, Suresh Balasubramanian, Craig Henderson, Jared Crabb, Janna Thompson, Mark Fontana

***Masters Advisor***

Advisor to over 50 Master of Science or Master of Arts students who did not take the thesis option.

**CURRICULUM**

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***Degree Programs Designed and Implemented***

Master of Fine Arts in Design - Developed the design for the Computer Visualization Specialization

Undergraduate minor in Design – Developed courses and overall program structure for non-design majors to study industrial, interior, visual communication or information design

***Courses Designed and Implemented***

Design 320 – Electronic Media for the Designer  
Design 340 – Information Visualization  
Design 570 – Introduction to Image Graphics Techniques  
Design 571 – Fundamentals of 3D Design Visualization  
Design 573 – Fundamentals of Multimedia Design  
CIS 681 - Introduction to Interactive Computer Graphics  
CIS 783 - Geometric Modeling  
College of the Arts 790 - Interdisciplinary Seminar in the Use of the Computer in the Arts  
Art 891.15 - History of Computer Graphics and Animation  
Art 894 - Traditional Animation (with Maria Palazzi and Charlotte Belland)

***Courses Taught***

*Computer Science*

Introduction to Computing Technology  
Geometric Modeling  
Introduction to 3D Computer Graphics  
Introduction to 3D Image Generation  
Interactive 3D Graphics  
Numerical Methods  
Numerical Linear Algebra  
Operating Systems  
Introduction to Computer Architecture  
Programming Languages  
Data Structures  
Advanced Studies in Computer Graphics

*Mathematics*

Discrete Mathematics  
Calculus  
Advanced Calculus  
Linear Algebra

*Design*

Electronic Media for the Designer  
Introduction to Image Graphics Techniques  
Interdisciplinary Studies: Technology in the Arts  
Interdisciplinary Studies: Topics in Computer Graphics for Artists and Designers  
Orientation to Graduate Studies in Industrial Design (team taught and solo taught)

Industrial Design Interdepartmental Seminar - Miscellaneous Topics  
Introduction to Multimedia Programming  
History of Computer Graphics Imagery and Animation (online and traditional)

**SEMINARS, WORKSHOPS,  
and CONTINUING EDUCATION**

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- “SIS – Student Records and Course Scheduling,” Student information Systems Training Center, The Ohio State University, March, 2009
- “College Strategic Planning Workshop”, Organization and Human Resources Development, The Ohio State University, Nov, 2007
- “ALD: Avoiding Legal Problems”, Organization and Human Resources Development, The Ohio State University, September, 2004
- “CITI Course in the Protection of Human Research Subjects”, a course teaching current research ethics, best practices and regulatory requirements for human subjects research activities, The Ohio State University, August, 2004
- “Responsible Conduct of Research: Protecting Human Subjects Involved in Research at The Ohio State University,” (satisfies NIH requirement Notice: OD-00-039) The Ohio State University Research Foundation, August 2001.
- “Essentials of Project Planning,” Organization and Human Resources Development, The Ohio State University, June, 2001
- “Faculty and Staff Involvement In Entrepreneurial Activities: Responsibilities Of Chairs And Deans,” Organization and Human Resources Development, The Ohio State University, May, 2001
- “Change Management - The Kotter Model for Leading Change Efforts,” Organization and Human Resources Development, The Ohio State University, March, 2001
- “Diversity, Inclusion and Respect: Learning through Dialogue,” Organization and Human Resources Development, The Ohio State University, Jan, 2001
- “The Essentials of Communicating with Diplomacy and Professionalism,” SkillPath Seminars, October, 2000.
- “Conflict Management,” Organization and Human Resources Development, The Ohio State University, June 1999, June, 2000
- “Introduction to Sexual Harassment Workshop,” Organization and Human Resources Development, The Ohio State University, March, 2000