

MITCHELL J. RYCUS
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Ann Arbor, Michigan 48105
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EDUCATION:

- Ph.D. Urban & Regional Planning, the University of Michigan, 1976
Ph.D. Thesis, "Evaluating Social Consequences Associated with Planning Future Energy Policies."
- M.S. Physics, the University of Michigan, 1965
- M.S. Mathematics, the University of Michigan, 1961
- B.S. Mathematics, the University of Michigan, 1958

TEACHING AND CONSULTING EXPERIENCE:

Teaching:

- June 2000 Professor Emeritus, Urban Planning, University of Michigan
- 1989-2000 Professor, Urban Planning, University of Michigan
- 1986-92 Chairman, Program in Urban Planning, University of Michigan
- 1983-89 Associate Professor, Urban Planning, University of Michigan
- 1980-83 Assistant Professor, Urban Planning, University of Michigan
- 1980-82 Assistant Professor, Resource Planning, University of Michigan-Flint
- 1977-80 Research Associate, Mental Health Research Institute, University of Michigan
- 1978 Adjunct Assistant Professor, Environmental Studies Program, University of Michigan-Flint
- 1978 Adjunct Assistant Professor, Environmental Studies Program, University of Michigan-Ann Arbor
- 1977 Professor, Physical Science, Oakland Community College, Farmington Hills, Michigan

Research and Consulting:

- 1984-2005 Co-Director - Studies in Urban Security Group, the University of Michigan. Co-Principal Investigator (P.I.) for City of Detroit, Police, Fire and EMS CAD/AVL Public Safety Projects, and for City of Detroit Water and Sewerage Department projects. Also, Co-P.I. for U.M. Campus Security Study, Urban Terrorism Workshops and other security related projects.
- 2007 Private Consultant - Lee-Gosselin, Associates Limited. Developed scenario based simulation for workshop, Quality Urban Energy Systems of Tomorrow, designed for major Canadian energy governmental and non-governmental organizations. Workshop was conducted November 13-15, 2007 at Niagara-on-the-Lake, ON.

- 2003-2007 Director of Research - Straec Technologies – An internet security consulting firm (www.straec.com) engaged in web based risk analyses and vulnerability assessments for a broad cross-section of public and private organizations. Responsible for developing sophisticated risk assessment models.
- 2003 Private Consultant – Applied Science & Technology, Inc. (ASTI). Conducted vulnerability assessments and risk analyses for communities developing Hazard Mitigation Plans. Conducted the risk analysis/vulnerability assessment workshops.
- 2003 Private Consultant – Albert Kahn Associates. Conducted seminar-workshop for architects, engineers and planners on strategic planning, risk assessment and security practices.
- 2002-03 Private Consultant - Carollo Engineers in Arizona, California and Utah. Conducted vulnerability assessments and risk analyses for a number of city water departments. Made recommendations for security measures, prepared Emergency Response Plans and conducted a number of security related workshops.
- 2001 Private Consultant - City of Phoenix Water and Waste Water Department & City of Scottsdale Water and Waste Water Department. Conducted preliminary assessments of system facilities security and recommended immediate security measures in preparation for long range security analysis and implementation strategies.
- 1999 Visiting Professor - University of Central England, Birmingham, England. Conducted survey and prepared a report on the results of urban planning and crime reduction under the 1998 UK Crime and Disorder Act.
- 1992 Visiting Scholar - United Nations Centre for Social Development and Humanitarian Affairs, Crime Prevention and Criminal Justice Branch, Vienna, Austria. Developed program for the role of urban planning in crime reduction.
- 1992 Visiting Professor - Japan Center for Michigan Universities, Hikone, Japan. Conducted research on international methods of crime reduction.
- 1991 Consultant - City of Phoenix Water and Waste Water Department. Conducted risk assessment and developed Emergency Response Plan including Computer Aided Toxic Chemical Retrieval System. Conducted mock exercise.
- 1990 Visiting Professor - University of Tokyo, Research Center for Advanced Science and Technology. Conducted research on methods of crime prevention in various capitol cities and compared techniques to U.S. and Japan.
- 1989 Project Manager - Studies in Urban Security Group. For U.S. Environmental Protection Agency, Water Security Project. Prepared a manual for nationwide distribution to be used by water facilities in developing security related plans and procedures.
- 1985-88 Consultant - Community Systems Foundation. Directed project for developing a strategic plan for data management in Indonesia. Responsible for various tasks dealing with the use of microcomputers for health, nutrition and family planning program evaluation in Indonesia and India.

- 1984 Task Leader - Community Systems Foundation. Directed research and analysis for evaluating school feeding programs in Haiti. Also developed a microcomputer based data retrieval and analysis system.
- 1982-83 Task Leader - Battle Creek Unification Study. Directed research related to the City of Battle Creek and Battle Creek Township's infrastructure, and the impacts associated with Unification. Also responsible for designing and conducting a survey of community attitudes. Grant funded by Battle Creek League of Women Voters.
- 1982-83 Co-Principal Investigator - Civil Works Energy Goals. Directed research leading to the development of energy consumption goals for various COE civil works functions Contract funded by U.S. Army Construction Engineering Research Laboratory.
- 1982 Principal Investigator -Policy Impact Assessment Strategy. Conducted research and developed a framework for energy conservation for U.S. Army Corps of Engineers, Civil Works. Contract was funded by the U.S. Army Construction Engineering Research Laboratory.
- 1981 Task Leader - Revitalization of Industrial Buildings. Responsible for energy concerns associated with saving older industrial facilities for modern industrial usage. Program coordinated by Institute for Science and Technology, University of Michigan.
- 1980 Co-Principal Investigator - Energy Management and Planning in Parks. Developed a planning process for assisting state and local parks in energy management. Contract was funded to the University of Michigan from Heritage Conservation and Recreation Service, Department of Interior.
- 1980 Consultant - Presidential Commission on World Hunger. Developed workshop and simulation for understanding the complex interactions of various federal and international organizations in dealing with problems of world hunger.
- 1977-81 Consultant - Applied Environmental Research, Ann Arbor, MI. Programs involved Detroit Edison District Heating study and Wayne County's Comprehensive Energy Management plan.
- 1972-77 University of Michigan Extension Gaming Service - Responsible for the running and redesigning of simulation games for various private and public agencies, such as, the Army Corps of Engineers-Board of Rivers and Harbors, City of Ann Arbor, University faculty and various university level courses. Associated with the Environmental Simulation Laboratory in the running and redesign of environmental simulation games.

PUBLICATIONS:

"Object-Oriented Programming and Chaos Modeling in Planning," Mitchell J. Rycus, in, The Planner's Use of Information, Dandekar, H.C., Ed., 2nd. Edition; Planners Press, American Planning Association, Chicago, IL; pp 152-153, 2003.

"Crime Reduction Strategies for Planning Departments" M. J. Rycus. Michigan Planner; the Michigan Society of Planning Officials; Vol. 4, No. 8; February 2000.

"Can Sound Urban Planning Help Reduce Crime?" M. J. Rycus. Habitat Debate Published by United Nations Center for Human Settlements; Vol. 4, No. 1; March 1998.

"The Role of Urban Planning in Crime Reduction." M. J. Rycus. City Planning and Management News; Winter 1995-1996 Issue.

"Urban Security and Sustainable Development in the 21st Century," M. J. Rycus, co-author; International Centre for Sustainable Cities; Vancouver, BC, Canada, September 1994.

"Urban Planning and Crime Prevention," M. J. Rycus. Report for 1992 and Resource Material Series; 43:149-155, UNAFEI, Fuchu, Tokyo, Japan; April 1993.

"Urban Terrorism: A Comparative Study," M.J. Rycus. Journal of Architecture and Planning Research; 8:1-14, Locke Science Publisher, 1991.

"La Valeur du Risque dans le Service des Eaux," M.J. Rycus. Les Annales de la Recherche Urbaine No. 40; Paris, France; November 1988.

"Analytic Methods," Rycus, M.J., in Introduction to Urban Planning, A. Cantanese, and J.C. Snyder, Editors; McGraw-Hill; 1988.

Urban Terrorism Seminar and Workshop, 1986 Proceedings; Snyder, J.C. and L. Duke, J. Hazekamp, T. Lyons, M.J. Rycus, J. Segedy, Studies in Urban Security Group; University of Michigan; 1986.

Report on BKKBN Strategic Plan for Data Management, M.J. Rycus. Developed for the Office of Population & Health USAID/Jakarta; Community Systems Foundation; August 1986.

Evaluation Research on the PL 480 Title II School Feeding Program in Haiti, Cotten, J., Program Evaluation Officer, USAID/Haiti; 1982 and Chapters VI and VII: Longitudinal Analysis, Rycus, M. with Timmons, R. and Drake, W.; Community Systems Foundation; March 1985.

Evaluation Research on the PL 480 Title II School Feeding Program in Haiti: Longitudinal Analysis; Rycus, M.J., Timmons, R., Cotten, J. and Drake, W.; Community Systems Foundation; March 1985.

"Decision Analysis: Some Techniques for Choosing Among Alternative Goals," Rycus, M.J.; in, Tactics and Techniques of Community Practice; F.M. Cox, J.L. Erlich, J. Rothman, J.E. Tropman, Editors; Peacock Publishers, Inc.; 1984.

Energy Consumption in the Corps Owned Dredge Fleet: Recommendations with Regard to Energy Management and Goal Setting; Berg, M.R., Hassett, M.L., Rose, M.F. and Rycus, M.J.; U.S. Army COE, CERL Report; December 1983.

Civil Works Energy Goals for Dredging and Lock and Dam Operations: Evaluation of Data Base and Mission-Related Constraints; Rycus, M.J. and Berg, M.R., Hassett, M.L., Rose, M.F., Mitchell, J., Feldt, A.G.; U.S. Army COE, CERL Technical Report; September 1983.

"Feasibility of a Surplus Wood Energy Industry for the State of Michigan"; Energy in Agriculture, 2 (1983), 245-256; Elsevier Science Publishers B.V., Amsterdam, the Netherlands (with Jo Ann Kwong).

"Planning and Computers," Rycus, M.J., in, The Planner's Use of Information, Dandekar, H.C., Ed.; Hutchinson Ross Publishing Co.; 1982.

"Analytic Methods," Feldt, A.G. and M.J. Rycus, in, The Planner's Use of Information, Dandekar, H.C., Ed.; Hutchinson Ross Publishing Co.; 1982.

A Program for Strategic and Tactical Energy Management Within Civil Works, Berg, M.R., Feldt, A.G., Hassett, M.L., Rose, M.F., Rycus, M.J.; Report prepared for U.S. Army Construction Engineering Research Laboratory; May 1982.

Energy Planning and Management for Parks and Recreation; Handbook prepared for the Heritage Conservation and Recreation Service, U.S. Department of Interior; February 1981.

Jobs and Energy in Michigan: The Next Twenty Years, M. Berg, P. Ray, M. Boroush, with Rycus, M.J.; University of Michigan, ISR; 1981.

"An Analysis of the Relationship between the Compensation of Hospital-Based Pathologists and the Charges for and Utilization of Laboratory Services." Journal of the American Medical Association; May 23/30, 1980, Vol. 293, No. 20 (with Sheldon Markel, M.D.).

"To Enhance Learning: The Snuffing Version of Equations," Simulation & Games; September 1979, Vol. 10, No. 3 (with Layman Allen and Linda Bangert).

"Restoration of Linear Smeared Transparencies," M. J. Rycus and J. Horner; S.P.I.E. Seminar Proceedings; Vol. 16; October 1968.

"The Role of Absorbers in Re-Entry Vehicle Cross Section Reduction," M. J. Rycus; Journal of Missile and Defense Research; Spring Issue 1967, No. 14.

REPORTS AND PRESENTATIONS:

Studies in Urban Security Group (SUSG) Reports:

(Unless otherwise noted, all SUSG publications were prepared by James C. Snyder, Mitchell J. Rycus, and the Studies in Urban Security Group Graduate Student staff; University of Michigan, Taubman College of Architecture and Urban Planning.)

"Protection of Public Water Systems," prepared for the President's Commission on Critical Infrastructure Protection: July 1997.

"Emergency Response and Water System Security in Germany, Israel, and Japan," prepared for the President's Commission on Critical Infrastructure Protection: July 1997.

"Vulnerability of Public Water System Supervisory Control and Data Acquisition (SCADA) Systems," prepared for the President's Commission on Critical Infrastructure Protection: July 1997.

"Water-Related Emergency Condition Response Plan and Human Health Reporting System," (Detroit Water and Sewerage Department), February 1998.

"DETERS (Detroit Emergency Response System) Response Time Reports," (Detroit Fire and EMS) monthly: July 1993 - January 1995.

"DETERS (Detroit Emergency Response System) Response Time Reports," (Detroit Police) monthly: July 1993 - January 1995.

"Summary of Response Time Reports for the Detroit Fire Department / EMS: January 1992 - November 1993," January 1994.

"Summary of Response Time Reports for the Detroit Police Department: January 1992 - November 1993," January 1994.

"Process Safety Management Compliance Notebook: OSHA Standard 29 CFR 1910.119 Process Safety Management of Highly Hazardous Chemicals," February 1994.

"Summary of Response Time Reports for the Detroit Fire Department / EMS: January 1992 - January 1994," February 1994.

"Summary of Response Time Reports for the Detroit Police Department: January 1992 - January 1994," February 1994.

"DETERS (Detroit Emergency Response System) Response Time Reports and Summary of Response Time Reports," (Detroit Police) monthly: January 1992 - April 1994.

"Water & Sewerage Department Compliance Notebook: OSHA Standard 29 CFR 1910.119 Process Safety Management of Highly Hazardous Chemicals", March 1993.

"Geographic Information Systems and Crime Prevention," August 1993.

"Spatial Patterns of Crime and its Significance for the Planning Profession," August 1993.

"The Role of Urban Planning in Crime Awareness and Prevention at the Community Level," August 1993.

"Urbanization and Crime: Historical Patterns and Modern Manifestations," August 1993.

"Removal and Treatment of Hazardous Materials," (Detroit Water and Sewerage Department), Apr. 1992.

"Evaluation of DETERS," (Detroit Emergency Response System), Apr. 1992.

"DWSD Chemical and Related Information Computer System: Operation Manual," (Detroit Water and Sewerage Department), Mar. 1992.

"Water Treatment Plants Physical Security Strategies Notebook," (Detroit Water and Sewerage Department), Feb. 1992.

"AVL System Needs Assessment Report for the City of Detroit," Feb. 1992.

"Assay Procedures for Highly Toxic Chemical and Biological Substances," (Detroit Water and Sewerage Department), Sept. 1991.

"Water Related Emergency Condition Response Plan and Human Health Reporting System," (Detroit Water and Sewerage Department), Sept. 1991.

"Report on the DWSD 1990 Functional Exercise Chemical Spill on the Detroit River," (Detroit Water and Sewerage Department), Jan. 1991.

"Hazardous Materials: Shipped and Stored," (Chemicals and Quantities Stored, Shipped, and Transferred Along the City of Detroit's Water System Routes), 1991.

"Water-Related Emergency Condition Response Plan and Human Health Reporting System," (DWSD), August 1990.

"Detroit Emergency Response System Response Time Report for Police, Fire, and EMS,"(City of Detroit), August 1990.

"Sampling Strategy and Related Technical Needs Study Interim Report," April 1990.

"Report of the Task Force on Campus Safety and Security," March 1990.

"University of Michigan Task Force on Campus Safety and Security," February 1990.

"Water-Related Emergency Condition Response Plan," (DWSD), December 1989.

"Computer Aided Dispatch Automatic Vehicle Location Mobile Data Terminal and Associated Communication Systems," (Detroit Police, Fire and EMS), October 1989.

"The Human Health Reporting System," (DWSD), August 1989.

"CAD/AVL Mobile Data Terminal and Associated Communication Systems- Progress Report," (Detroit Police, Fire and EMS), April 1989.

"Strategic Security Planning for Public Drinking Water Systems," (DWSD), January 1989.

"Water-Related Emergency Condition Response Plan - Reference Format," (DWSD), January 1989.

"Implementation, Monitoring, and Evaluation Workbook for the Risk Reduction Security Strategy," (DWSD), May 1988.

"Program for the Implementation, Monitoring, and Evaluation of the Risk Reduction Security Strategy - Preliminary Report," (DWSD), "September 1987.

"Automatic Vehicle Location System and Associated Communications and Computer Security Progress Report," (Detroit Police, Fire and EMS). Three Reports Dated, March, June, and December 1987.

"Water-Related Emergency Condition Response Plan for the Detroit Water and Sewerage Department," (DWSD). Final Report, Three Volumes, 1987.

"Automatic Vehicle Location System and Associated Communications and Computer Security," (City of Detroit Police, Fire and EMS). Two volumes, 1986.

"Preliminary Report and Presentation - Detroit Water and Sewerage Department Pollution and Detection Abatement," November 1985.

"Information System: Analysis and Design, Phase I, Final Report," (City of Detroit Police), 1984.

Other Technical Reports:

"Security Planning with Risk Assessment Models," White Paper prepared for Straec Technologies, M. J. Rycus; August 2003.

"Results of the Urban Planning and Crime Reduction Survey," Prepared for The College of the Built Environment, University of Central England, Birmingham, England; M. J. Rycus; July 11, 2000.

"Urban Security and Sustainable Development in the 21st Century," Contributing Author, Prepared for The International Centre for Sustainable Cities, Vancouver, B.C., Canada; Sept. 1994.

"Water and Wastewater System Assessment and Risk Assessment (City of Phoenix)," J.C. Snyder and Associates, Rycus, M. J. and Snyder, J. C.; Feb. 1992.

"A Strategic Plan and Analysis of Security Practices and Procedures." Prepared for the Industrial Technology Institute, 1988.

"ICDS Database Management System: Volume 1-Dbase III Data Entry and Management System; Volume II-ICDS Instructional Guide to Analysis Using SPSS/PC"; Community Systems Foundation; April 1986.

"KB-GIZI - An Integrated Family Planning, Nutrition & Health Program: The Evaluation of the First Five Years of Program Implementation in East Java and Bali," by the National Family Planning Coordinating Board (BKKBN), the Universities of Udayana, Brawijaya and Airlangga, and Community Systems Foundation; October 1986.

"Pros and Cons of Unification in the Greater Battle Creek Area:"

Phase I, and Phase I Summary, August 1982

Phase II; Attitude Survey, May 1983

Phase II; Summary, June 1983

Phase III; Survey of Govt., and Summary, July 1983

All six volumes prepared under a grant from the Battle Creek League of Women Voters.

"It's Damn Good Business: A Guide to Tapping an Unused Manpower Resource," Final Report on OEO Grant No. 50011, prepared for Michigan State Chamber of Commerce; August 1972.

Conductron Report D5410-2870-P1172, "Photographic Smear Reduction Study, Final Technical Report," prepared for Air Force System Command, Griffiss AFB, Rome, New York; January 1970.

Conductron Report, "Grid Passive Communications Satellite Performance Tests on Preliminary Model," prepared for Systems Engineering Group, Research and Technology Division, Air Force Systems Command, Wright Patterson AFB, Ohio; August 1965.

Conductron Report 0038-B-F, "Final Report - Phase B," prepared for NASA Communication Research Branch, under Contract No. NAS5-3232; 1964.

Conductron Report 0047-12-F, "Final Engineering Report, Radar Cross Section Study, Appendix B," prepared for Redstone Arsenal.

Conductron Report FR-TR-62-1, "Project 113, Volume 1, Final Report/Technical Documentary Report," prepared for Lockheed Missile and Space Co.; 1963.

Conductron Report 009-1-F, "Final Engineering Report, Minneapolis-Honeywell Missile Configuration Analysis," prepared for Minneapolis-Honeywell Regulator Company, Minneapolis, Minnesota; December 1963.

Conductron Report 0030-10F, "Project 30 Final Report, Lockheed Reflectivity Support Program," prepared for Lockheed Missiles and Space Company, Sunnyvale, California; March 1963.

Presentations:

“Quality Urban Energy Systems of Tomorrow,” presented to major Canadian energy governmental and non-governmental organizations at Niagara-on-the-Lake, ON; November 13-15, 2007.

“School Risk Reduction Analysis – Methodology and Results,” presented to the Chisago Lake School District, Minneapolis; MN, July 12, 2005

“Risk/Vulnerability Analysis – Methodology and Results,” presented to the Colombian Air Force at the Colombian Air Force Academy, Bogota; Colombia, May 4, 2004.

“Facility Safety & Security,” presented at the International Facility Management Association, Southeastern Michigan Chapter, Troy; Michigan, April 15, 2004

“Facility Security Planning,” presented at the Association for Facilities Engineering, Great Lakes Chapter 171, Royal Oak, Michigan; February 3, 2004

“Facility Security,” presented at the Association for Facilities Engineering, Chapter 84, Kalamazoo, Mich.; December 10, 2002.

“Design for Security in the New Realty,” moderated an executive forum developed under the auspices of Albert Kahn Associates, Detroit, Mich.; April 17, 2002.

“Role of Urban Planning in Crime Prevention Post 911,” presented at the American Institute of Certified Planners conference, Washington, D.C.; November 14, 2001.

“Urban Security and Sustainability: An International Perspective,” presented at the joint Association of Collegiate Schools of Planning and Association of European Schools of Planning conference, Toronto, Ontario, Canada; July 22, 1996.

“Urban Planning and Crime Reduction,” presented at the Association of Collegiate Schools of Planning meeting, Detroit, Mich.; October 19, 1995.

“CAD/AVL Detroit: Communication and Planning,” invited to speak under the auspices of the Community Science Program, University of Michigan-Flint Feb. 28, 1995.

“Methods for Community Cooperation and Communication,” structured workshop sponsored by the Washtenaw County Metropolitan Planning Commission, Ann Arbor, Mich.; October 12, 1994.

“International Methods of Crime Prevention,” invited to present by the Attorney General's Office of Mexico to around thirty community organizational leaders. Mexico City, Mexico; September 28, 1994.

“Urban Safety: Urban Planning and Crime Prevention; An Urban Planning Perspective,” invited paper presented under the auspices of the Research Center for Advanced Science and Technology, University of Tokyo Urban Development Engineering (GC5) Endowed Chair Final Symposium, Tokyo, Japan; January 18, 1994.

“The Role of Urban Planning in Crime Reduction,” presented at the Allan G. Feldt Alumni Colloquium, Ann Arbor, Mich.; May 12, 1994.

“Urban Safety: Urban Planning and Crime Prevention; An Urban Planning Perspective,” presented at Urban Development Engineering Final Symposium, University of Tokyo, Tokyo, Japan; January 18, 1994.

"Urban Planning and Crime Prevention," Invited to speak under the auspices of the Distinguished Lecture Series; sponsored by the Learning in Retirement Program, Ann Arbor, Mich.; October 12, 1993.

"Consolidation of Governments; The Battle Creek Experience, " invited to present by the Washtenaw County Metropolitan Planning Commission, Ann Arbor, Mich. October 27, 1993.

"Urban Policy and Crime Reduction," presented at the 9th United Nations Congress Preparatory Meeting on Workshops, Montreal, Quebec, Canada; November 16, 1993.

"Risk Management and Threat Assessment for Municipal Water Departments," invited paper presented at the Downtown Detroit Security Executive Council, Detroit, Mich.; November 4, 1993.

"The Role of Urban Planning in Crime Reduction," presented at the Association of Collegiate Schools of Planning meeting, Philadelphia, Pa.; October 31, 1993.

"Urban Planning and Crime Prevention," presented at Shiga International Friendship Association, Aspects of American and Japanese Culture Series, Hikone, Japan; December 4, 1992.

"Urban Planning and Crime Prevention (Methods for Reduction)," presented at the United Nations Asian and Far East Institute for the Prevention of Crime and the Treatment of Offenders (UNAFEI): UNAFEI 92nd International Training Course, Tokyo, Japan; October 28, 1992.

"Urban Planning and Crime Prevention," presented at the United Nations Centre for Social Development and Humanitarian Affairs, Crime Prevention and Criminal Justice Branch, Vienna, Austria; August 25, 1992.

"International Methods of Crime Prevention: Observations from Japan," presented at, International Perspectives; Crime, Justice and Public Order Conference, John Jay College of Criminal Justice, New York, and St. Petersburg State University, Russia, St. Petersburg, Russia; June 27, 1992.

"International Crime Prevention Methods," presented at the Joint ACSP and AESOP International Congress, Oxford, England; July 1991.

"Planning for A Hi-Tech System: The Detroit CAD/AVL Project," presented at the Association of Collegiate Schools of Planning meeting, Austin, Texas; 1990.

"Urban Security Observations from Japan," presented for The Japanese Urban Security Research Institute, Tokyo, Japan; 1990.

"Starting Off on the Right Foot: Approaches to Teaching Introduction to Planning," presented at the Association of Collegiate Schools of Planning, Portland, Oregon; 1989.

"Risk Analysis Techniques for Public Water Systems," presented at the Association of Collegiate Schools of Planning meeting, Buffalo, New York, October; 1988.

"Strategic Planning for Industrial Security." Workshop presented at the American Society of Industrial Security Professionals meeting; March 9, 1988.

"The Role of Microcomputers in the Planning Office," presented at the American Planning Association - Michigan Chapter meeting; May 15, 1987.

"Urban Security: A Comparative Study," presented at the American Collegiate Schools of Planning, Los Angeles, California; November 6, 1987.

GAMES/SIMULATIONS AND COURSES:

Games and Simulations:

"A Simulation Exercise for the Presidential Commission on World Hunger"; An Adaptation of "Policy Negotiations"; May 1980.

Co-designer of "The Energy Resource Game (ERG)." Designed to simulate household energy costs now, and thirteen years from now. Developed for the Cooperative Extension Service of Michigan State University; 1977 (with Russell Stambough).

Developed "The Staff Training Poker Game." Designed to simulate some aspects of staff development and training that can occur at hospitals or other institutions having an ongoing internal training program; 1976.

Co-designer of "BRIDGES." An organizational management game designed to simulate decision making in a turbulent, uncertain, and changing environment; 1975.

Some Selected Courses Taught:

Planning and Technology. A seminar designed for the advanced graduate student, focuses on modern technologies (e.g., energy, communications, computers, transportation), their potential future innovations, and policy-related impacts on the urban environment.

Analytic Methods for Planners: Problem Solving. Designed for the advanced student, this course introduces some of the more sophisticated techniques used in analysis. Computers, Data Base Management, Linear Programming and various mathematical modeling techniques are introduced and learned through a problem solving approach.

Introduction to Analytic Methods for Planners. This course is designed to provide or renew math and statistical skills for graduate students in Urban Planning. Topics such as, inferential statistics, cross-impact analysis, Delphi techniques, and basic gaming principles are discussed in the context of forecasting as a planning technique.

People, Energy and Environment. A broad ranging course covering energy related technical and social concepts, and examining the impact of energy resource usage and governmental policies on the environment.

Energy Planning and Technology. This course is a follow-up to the previous one and emphasizes the planning, design and use of energy systems through the development and implementation of a course project.

A Survey of World Resources. This course examines the political, social and environmental consequences associated with the acquisition and use of various resources. Air, water, land, food, energy, and mineral resources are examined, their limits are determined and the impact of shortages and environmental degradation are discussed.

Nuclear War. Designed as an inter-divisional, undergraduate course that addresses the issues of nuclear war. The technical aspects of nuclear weapons are covered, after which the historical political context of nuclear war strategies are presented. A Policy-Negotiating process is introduced whereby participants can gain broader insights into complex international treaty processes.

Crime and Violence in Public Schools. Was designed for teaching administrators in public schools the various problems and potential solutions to issues of crime and violence. Planning skills dealing with strategic planning techniques as well as physical security methods are also covered. Conflict resolution techniques and alternative strategies are discussed.

Introduction to Urban Planning. A survey course utilizing speakers involved in various aspects of Planning, including, housing, law, social sciences, the physical environment and other topics.

OTHER PROFESSIONAL EXPERIENCE:

- 1992-2002 Commissioner – Washtenaw County Metropolitan Planning Commission. Commissioner for ten years, and Chair from 2001 through October 2002. A citizens advisory planning commission with policy making powers
- 1970-72 Project Associate - Michigan State Chamber of Commerce, Management Assistance Program for increasing job opportunities for the poor in business and industry. The Program concentrated on finding the barriers to the employment of disadvantaged poor and offering assistance to participating companies in removing those barriers. The Michigan State Chamber of Commerce prepared a final source book and handbook for nation wide distribution.
- 1962-70 Group Scientist -Conductron Corporation. Headed the Optics Research Department, Principal Investigator in the development of smeared imagery restoration techniques and in the theoretical analysis of radar imagery predictions based on coherent optical models. Worked on the coherent pulse laser, holographic techniques designed to predict vibration, strain and fatigue of materials. Conducted analysis in the field of radar imagery prediction from high-resolution radar systems.
- 1961-62 Mathematician (Engineer) - Bendix Systems Division. Performed analysis on various aerospace systems and other surveillance and correlation systems.
- 1961 Master Dimension Mathematician - Rocketdyne Division of North American Aviation. Concerned with the mathematical analysis of rocket parts and engines.
- 1958-61 Assistant Research Scientist - University of Michigan Research Institute, Radiation Laboratory. Engaged in basic research in radar astronomy, satellite motion, and microwave scattering.

NOVELS

- “Rub up: Musings of a Navy Corpsman,”* 2007
“The Noble Profession of Leaf Chasing,” 2010
“The Soil is Dead,” 2012
“T,” 2013
“The Artist,” 2015
“Max’s Fools,” Due out 2016

AWARDS:

Awarded a Visiting Professorship at the University of Central England, Birmingham, England; Fall 1999.

Awarded a Visiting Scholar position at the Japan Center for Michigan Universities, Fall 1992.

Urban Environment System (GC5), Chaired Visiting Professorship, University of Tokyo, Research Center for Advanced Science and Technology, 1990.

University of Michigan Faculty Recognition Award, 1982-83

July, 2015.