



**Gary S. Drigel, P.E.**  
**Assistant Professor**  
**Department Engineering Technology**  
**513/785-1813 (Hamilton)**  
**513/727-3237 (Middletown)**  
**drigelgs@muohio.edu**

### **EDUCATION**

PhD - Complete course work and partial research in Metallurgical Engineering - University of Cincinnati  
MS - University of Cincinnati - 1980  
BS - University of Cincinnati - 1973

### **ACADEMIC EXPERIENCE**

Assistant Professor - Mechanical Engineering Technology - Miami University - Middletown/Hamilton - 2004 - Present  
Visiting Professor - Mechanical Engineering Technology - Miami University - Middletown/Hamilton - 2001 - 2004  
Adjunct Professor - Manufacturing Engineering - Miami University - Oxford - 1999-2000  
Adjunct Professor - Ferrous Metallurgy and Advanced Metallurgy - Butler County Community College, 1974-1975

### **CONSULTING / PROFESSIONAL EXPERIENCE**

Technical Recruiter, LGA Associates (1999-2001), Senior Metallurgical Engineer Design Development, The Minster Machine Company (1998-1999), Senior Staff Market & Product Development Engineer, Armco Inc. Research Center (1996-1998), Senior Staff Stainless Steel Product Development Engineer, Armco Inc. Research Center (1988-1996), Senior Research Specialty Steel Process Research Engineer, Armco Inc. Research Center (1985-1988), Senior Research Process Engineer - Continuous Casting, Armco Inc. Research Center (1983-1985), Research Engineer & Senior Research Engineer, Tubular Products Armco Inc. Research Center (1975-1983), Plant Metallurgical Engineer - Melting and Electrical Steel Processing, Armco Inc. Butler Works (1973-1975).

### **PROFESSIONAL REGISTRATION**

Registered Professional Engineer - State of Ohio 1976 - Present  
Epsilon Pi Tau - Gamma Chapter Trustee - 2005 - Present

### **PROFESSIONAL ORGANIZATIONS**

Iron and Steel Society (AIME), Member 35 years. Chairman Mechanical Working Division 1985-86, Secretary Mechanical Working Division 1984, Member of Board of Directors 1985-1987, Ferrous Metallurgy Grant Committee 8 years, Chairman Research in Progress Committee 6 years, Membership Committee 10 years, Education committee 4 years, Long Range Planning Committee 3 years, American Society for Metals (ASM), Member 39 years 1968 - present, American Society for Testing Materials (ASTM), Member 15 years, American Iron and Steel Institute (AISI) Chairman of Technical Committee on Specialty Tubing, 1979-1982, American Society for Engineering Education 2005-present,

## **PUBLICATIONS, AWARDS, HONORS**

Drigel, G.S. “*The Integration of Project Management (PM) into the Senior Design Capstone Experience*”, The International Journal of Applied Management and Technology, Vol. 5, Num 2, May 2007

Drigel, G.S. “*Senior Design Capstone – a winning Model*”, International Journal of Modern Engineering International Conference, Newark, NJ, 2006 IJME-Intertech, Conference Proceeding CD Kean University, paper ENT 101-016, October 19-21, 2006

Drigel, G.S. “*Mechanical Models: A Novel Process to Enhance Student Learning*”, 26th annual Lilly Conference on College Teaching Oxford, OH, November 26, 2006

Drigel, G.S. “*From Project Planning to National Champion-BUV Design, Build and Win*”, American Society of Engineering Education National Conference, Chicago, IL, 2006 Annual Conference Proceeding CD & website paper 2006-550, June 21, 2006

Drigel, G.S. “*Cost Effective Mechanical Design in Relation to Material and Structural Rigidity and Design Alternatives*”, American Society of Engineering Education National Conference, Chicago, IL, 2006 Annual Conference Proceeding CD & website paper 2006-197, June 20, 2006

CELT Alumni Teaching Scholar Miami University 2005-2006

Drigel, G.S. and Sarquis, A.M. “*Corrosion of Steel Structures*” **paper** presentation and workshop, National Science Teacher’s Association (NSTA) National Conference in Dallas, Texas April 20, 2005

D’Agostino, M.; Bleam, B.; McKinney, D.; Criniti, M.B.; Drigel, G.; Vail, H, “Corrosion of Steel Structures” Contributing Author National Science Foundation Advance Technology Education Initiative Grant 0101400. July 2004. *Corrosion of Steel Structures*;

Drigel G.S. “High Temperature Property Development for 11 Cr-Cb Stainless Steel Family”, University of Cincinnati, Ph.D. Thesis Work, unpublished.

Sarquis, A.M., Ed.; Using Chemistry to Enhance the Technical Workforce in the Innovation Age Series; Terrific Science: Middletown, OH, in press. NSF Advance Technology Initiative Grant 0101400

Drigel G.S. “The Effect of Non-Metallic Inclusions on the Hot Ductility of a C-Mn Steel”, University of Cincinnati, Masters Thesis, June 8, 1980.

Drigel G.S. and Rosa C.J. “The Effect of Non-Metallic Inclusions on the Hot Ductility of a C-Mn Steel”, Zeitschrift Fur Metallkunde, May 1982.

Peterson J.A., Johnson D.W. and Drigel G.S. “Effect of Cooling Rate After Tempering on Sulfide Stress Cracking (SCC) of Seamless Tubular Products”, Proceedings of 23<sup>rd</sup> Mechanical Working and Steel Processing Conference, Pittsburgh, PA 1985.

Jackson J.F., Drigel G.S. and Englebrecht M.L. “A Unique Application of Ultrasonic Wall Thickness Measurements of Seamless Pipe”, Proceedings of 23<sup>rd</sup> Mechanical Working and Steel Processing Conference, Pittsburgh, PA 1985.

## **PROFESSIONAL SERVICE AND DEVELOPMENT**

ENT courses taught and / or developed t: ENT 151 – Engineering Materials, ENT 137 Introduction to Engineering Technology,

ENT 135 - Auto CAD, ENT 235 – Computer Aided Design, ENT 271 – Statics, ENT 272 – Strength of Materials, ENT 310 – Fluid Mechanics, ENT 316 – Project Management, ENT 404 Experimentation Techniques for Engineering Technology, ENT 497/498 – Senior Design

Member Dean’s Consultation Board Hamilton Campus

Received a CELT Small Grant for research in Impact Energy

Epsilon Pi Tau Gamma Chapter Trustee

ABET accreditation co-coordinator Nov. 2005

Coordinator of the Mechanical Engineering Technology Associate Degree and Bachelors Programs Degree Miami University

Cooperative Education Department Coordinator – 2000 to 2004

Proposal Reviewer U.S. State Department - Civilian Research and Development Foundation (CRDF)

Member of SEAS Divisional Recognition Ceremony Committee

SOCHE Dayton Area Consortium

### **PROFESSIONAL SERVICE AND DEVELOPMENT (continued)**

“Project Lead the Way Ohio” participant

Participated in a meeting and provided part of the program for the “Ohio Deans and Directors of Engineering & Industrial Technologies”

Presentation on “A Structural Analysis of the World Trade Center Collapse.”

CELT 2005 Presidents’ Day Teaching Effectiveness Retreat

Extensive work in advising, mentoring, and development of ENT students including: Tech Prep, Future Fair, Tech Challenge, SOCHE Transfer Fair, Hamilton and Middletown Campus Advising, ENT Annual Department Awards, SEAS Recognition and Awards Ceremony, Evening Advising

Worked with several local companies (Hamilton Caster, Advanced Drainage Systems, Valeo, General Electric, Feintool, AK Steel, SOS, Miami Machine, UBE Automotive, GE Schmidt, SCI Brakes, Dayton Technologies, Magnode Products, METCUT Research, KĀDANT Black Clawson Inc., MSI Labs Inc. and others) to develop relationships, place co-op students, place graduates, generate senior design projects and provide services to them on materials selection and other design criteria.

Organized and conducted ENT workshop for Hamilton HS Tech Prep Students including AutoCAD, Solid Edge, CNC Machining and Finite Element Analysis.

Organized and taught workshops on: (1) CAD Design -- 11/03, (2) MIG Welding -- 1/04, (3) World Trade Center Collapse -- 3/04, (4) Failure Analysis of the Titanic – 2/04, and (5) The Modulus of Elasticity – 4/04.

### **MAJOR AREAS OF INTEREST**

Materials Science and Metallurgical Engineering, Failure Analysis, Engineering Education, Cooperative Education, Processing Engineering, Engineering Design, Mechanical Engineering, High Temperature Applications, Metallography, Instrumentation, Technical Recruiting, Industrial Interfacing , Sales and Marketing, Statistical Process Control, Project Management, CAD / CAM.