

David J. Morrison

Room 205, CAMP Building, Clarkson University
Potsdam, NY 13699-5725
dmorriso@clarkson.edu
(315) 268-6585

Education:

- 1989 Ph.D. Materials Science and Engineering, University of Michigan, Ann Arbor, Michigan.
Dissertation: The Influence of Ion Beam Surface Modifications on Fatigue of Polycrystalline Nickel
- 1982 M.B.A. Finance, University of Colorado, Colorado Springs, Colorado
- 1973 M.S. Metallurgy, Michigan State University, East Lansing, Michigan
- 1972 B.S. Engineering Mechanics, USAF Academy, Colorado Springs, Colorado

Professional Experience:

- 1995 - Clarkson University, Potsdam, New York, 13699
Associate Professor, Department of Mechanical and Aeronautical Engineering
- 1989 - 1995 Clarkson University, Potsdam, New York, 13699
Assistant Professor, Department of Mechanical and Aeronautical Engineering
- 1986 - 1989 The University of Michigan, Ann Arbor, Michigan, 48109
Graduate Research Assistant, Department of Materials Science and Engineering
- 1983 - 1985 U.S. Air Force, Travis Air Force Base, California, 94535
Flight Operations - C5A Examiner Navigator, 60th Military Airlift Wing
- 1978 - 1982 U.S. Air Force Academy, Colorado Springs, Colorado, 80840
Assistant Professor, Department of Engineering Mechanics
- 1973 - 1978 U.S. Air Force, Travis Air Force Base, California, 94535
Flight Operations - C5A Instructor Navigator, 75th Military Airlift Squadron

Interests:

Manufacturing Processes, Fracture Mechanics, Fatigue Crack Initiation and Growth, Microstructural Characterization of Materials, Radiation Effects, Surface Film Effects on Bulk Mechanical Properties, Ion Implantation, Welding Processes, Metal Foams, Stress Corrosion Cracking, Hydrogen Embrittlement

Affiliations:

TMS (The Minerals, Metals, and Materials Society)
ASM International
American Society of Mechanical Engineers
American Society for Engineering Education

Professional Activities:

Member, TMS/ASM Mechanical Behavior of Materials Committee (2003 – Present)
Reviewer for *Journal of Pressure Vessel Technology* (Various years)
Reviewer for ASME Reliability, Stress Analysis, and Failure Prevention Committee (Various years)
Reviewer for the International Gas Turbine Institute (Various years)
Reviewer for *Materials Science and Engineering A* (Various years)
Reviewer for *ASEE Journal of Engineering Education* (Various years)
Reviewer for *ASME Journal of Mechanical Design* (Various years)
Reviewer for *International Journal of Fatigue* (Various years)
Reviewer for International Science and Technology Center proposals (Various years)
Reviewer for NASA Postdoctoral Fellows proposals (Various years)
Reviewer for NSF proposals (Various years)
Session Chair, "Properties of Composite Materials," Fourth Canadian Materials Science Conference, Kingston, Ontario, June 18, 1992.

Recent External Funding:

General Electric Oil and Gas – Vetco Gray (2011-2014)
“High Strength HISC-Resistant Bolt Materials for Seawater/Cathodic Protection Service”
PI with Co-PIs D. Aidun, I. Suni, and G. Ahmadi
\$390,000

U.S. Army (2006-2008)
"Smart Responsive Nanocomposite for Soldier Protection"
Co-PI with J. Moosbrugger (PI)
\$50,871

U.S. Army (2005-2006)
"Smart Responsive Nanocomposite for Soldier Protection"
Co-PI with J. Moosbrugger (PI)
\$84,946

National Science Foundation (2005)
“Research Experiences for Undergraduates - Cyclic Plasticity and Fatigue of Ultrafine Grain FCC Metals at Low Plastic Strain Amplitudes”
Co-PI with J. Moosbrugger (PI)
\$5,000

Composite Factory, Inc. (2005-2007)
"Feasibility of Carbonizing Thermoplastic Fiber to Convert it to a Continuous Carbon Fiber"
Co-PI with I. Sokolov (PI), J. Moosbrugger, and K. Issen
\$50,000

National Science Foundation (2004)
“Cyclic Plasticity and Fatigue of Ultrafine Grain FCC Metals at Low Plastic Strain Amplitudes”
Co-PI with J. Moosbrugger (PI)
\$67,474

National Science Foundation (2004)
“Research Experiences for Undergraduates - Cyclic Plasticity and Fatigue of Ultrafine Grain FCC Metals at Low Plastic Strain Amplitudes”
Co-PI with J. Moosbrugger (PI)
\$5,000

National Science Foundation (2003)
“Cyclic Plasticity and Fatigue of Ultrafine Grain FCC Metals at Low Plastic Strain Amplitudes”
Co-PI with J. Moosbrugger (PI)
\$68,965

National Science Foundation (2002-2005)
“Acquisition of an Axial Servo Hydraulic Test System for Research and Teaching in Civil and Mechanical Engineering at Clarkson University”
Co-PI with M.D. Lopez (PI), J.P. Dempsey, K. Issen, and L. Minnetyan
\$206,794

National Science Foundation (2002)
“Cyclic Plasticity and Fatigue of Ultrafine Grain FCC Metals at Low Plastic Strain Amplitudes”
Co-PI with J. Moosbrugger (PI)
\$49,994

Universal Instruments Corporation (2000-2002)
Development of Lead-Free Solder for Use in Electronic Applications
\$77,777

Recent Journal Articles:

“Cyclic Plasticity of Polycrystalline Nickel under Axial-Torsional Loading,” R. Batane, D.J. Morrison, and J.C. Moosbrugger, *Materials Science and Engineering A*, 528, 467-473, doi:10.1016/j.msea.2010.09.039, 2010.

“Self-healing Epoxy Composites Based on the use of Nanoporous Silica Capsules,” J.G. Kirk, S. Naik, D. Volkov, J.C. Moosbrugger, D.J. Morrison, and I. Sokolov, *International Journal of Fracture*, 159, 101-102, DOI 10.1007/s10704-009-9375-y, 2009.

“Low Cycle Fatigue of Aluminum Foam,” M. D. Ingraham, C. J. DeMaria, K. A. Issen, and D. J. Morrison, *Materials Science and Engineering A*, 504, 150-156, 2009.

“Modeling Aspects of Low Plastic Strain Amplitude Multiaxial Cyclic Plasticity in Conventional and Ultrafine Grain Nickel,” J.C. Moosbrugger, N.R. Batane, and D.J. Morrison, *International Journal of Plasticity*, 24, 1837-1862, 2008.

“Cyclic Stress-Strain Behavior of Conventional Grain and Ultrafine Grain Nickel under Biaxial Straining,” N.R. Batane, D.J. Morrison, and J.C. Moosbrugger, *Scripta Materialia*, 58, 955-958, 2008.

“Cyclic Plasticity of Single Crystal Nickel Oriented for Single Slip,” Y. Jia, D.J. Morrison, and J.C. Moosbrugger, *Materials Science and Engineering A*, 492, 80-87, 2008.

"Finite Element Simulation of PSB Macro-band Nucleation and Propagation in Single Crystal Nickel Cycled at Low Plastic Strain Amplitudes," D. Zhou, J.C. Moosbrugger, and D.J. Morrison, *International Journal of Plasticity*, 22, 1336-1366, 2006.

"The Influence of Magnetostriction on the Shape of the Hysteresis Loop of Cyclically Deformed Single Crystal Nickel," Y. Jia, D.J. Morrison, and J.C. Moosbrugger, *Scripta Materialia*, 53, 1025-1029, 2005.

"A Substructure Mixtures Model for the Single Slip Cyclic Plasticity of Single Crystal Nickel at Low Plastic Strain Amplitudes," D. Zhou, J.C. Moosbrugger, Y. Jia, and D.J. Morrison, *International Journal of Plasticity*, 21, 2344-2368, 2005.

Recent Proceedings Articles:

- “Multiaxial Cyclic Plasticity of Pulsed Electrodeposited Ultrafine Grain Nickel,” N.R. Batane, D.J. Morrison, and J.C. Moosbrugger, in *Macro- to Nano-scale Inelastic Behavior of Materials: Plasticity, Fatigue, and Fracture*. Proceedings of Plasticity 2009, the Fifteenth International Symposium on Plasticity and its Current Applications. A.S. Khan and B. Farrokh (eds.), NEAT Press (CD), pp. 91-93, 2009.
- “Modeling of Multiaxial Cyclic Plasticity in Conventional and Ultrafine Grain Nickel,” J.C. Moosbrugger, N.R. Batane, and D.J. Morrison, in *Macro- to Nano-scale Inelastic Behavior of Materials: Plasticity, Fatigue, and Fracture*. Proceedings of Plasticity 2009, the Fifteenth International Symposium on Plasticity and its Current Applications. A.S. Khan and B. Farrokh (eds.), NEAT Press (CD), pp. 124-127, 2009.
- “Biaxial Cyclic Stress-Strain Response of Ultrafine Grain Nickel,” N.R. Batane, D.J. Morrison, and J.C. Moosbrugger, in *Plasticity, Failure and Fatigue in Structural Materials – from Macro to Nano*. Proceedings of the Hael Mughrabi Honorary Symposium. K.J. Hsia, M. Goken, T. Pollock, P.D. Portella, and N. Moody (eds.), TMS, pp. 155-160, 2008.
- "Strain Localization During Low Cycle Fatigue of Aluminum Foam," M.D. Ingraham, C.J. DeMaria, K.A. Issen, and D.J. Morrison, in *MetFoam 2007*. Proceedings of the 5th International Conference on Porous Metals and Metallic Foams, L.P. Lefebvre, J. Banhart, D.C. Dunand (eds.) DEStech Publications, pp. 351-354, 2008.
- “Inhomogeneous Deformation and Fracture of Aluminum Foam under Uniaxial Tension,” K.A. Issen, M.L. Black, C.J. Smith, and D.J. Morrison, in *MetFoam 2007*. Proceedings of the 5th International Conference on Porous Metals and Metallic Foams, L.P. Lefebvre, J. Banhart, D.C. Dunand (eds.), DEStech Publications, pp. 355-358, 2008.
- "Experimental Investigation of the Cyclic Plasticity of Ultra Fine Grain Nickel Produced by Electrodeposition," J.C. Moosbrugger, N.R. Batane, and D.J. Morrison, in *Anisotropy, Texture, Dislocations and Multiscale Modeling in Finite Plasticity and Viscoplasticity, and Metal Forming*. The 12th International Symposium on Plasticity - Plasticity 2006, Halifax, Nova Scotia, July 17-22, 2006, NEAT Press, pp. 349-351, 2006.
- "Cyclic Plasticity and Fatigue of Ultra Fine Grain Nickel Produced by Pulsed Electrodeposition," N.R. Batane, D.J. Morrison, and J.C. Moosbrugger, in *The Ninth International Fatigue Congress - Fatigue 2006*, Atlanta, May 14-19, 2006, p. FT430 (CD), 2006
- “Prototyping a Composite SMC/Steel Axial-Flux PM Wind Generator,” M.A. Khan, P. Pillay, N.R. Batane, and D.J. Morrison, IAS Annual Meeting (IEEE Industry Applications Society), v 5, Conference Record of the 2006 IEEE Industry Applications Conference, Forty-First IAS Annual Meeting, pp. 2374-2381, 2006.
- “Experiments and Modeling for Nickel Single Crystals Under Cyclic Loading,” D. Zhou, J.C. Moosbrugger, Y. Jia, and D.J. Morrison, in *Dislocations, Plasticity, and Metal Forming, Plasticity '03*. The Tenth International Symposium on Plasticity and its Current Applications, Akhtar S. Kahn, Rehan. Kazmi, and Jianqiu Zhou (eds.), Neat Press, Fulton, MD, pp. 61-63, 2003.
- "Low Plastic Strain Amplitude Cyclic Plasticity of Nickel Single Crystals," John C. Moosbrugger, Yan Jia, and David J. Morrison. in *Plastic and Viscoplastic Response of Materials and Metal Forming, Plasticity '00 - The Eighth International Symposium on Plasticity and its Current Applications*. Akhtar S. Kahn, H. Zhang, and Ye Yuan (eds.), Neat Press, Fulton, MD, pp. 357-359, 2000.

Recent Technical Presentations: (Presenter is underlined)

- “Fully Reversed Low Cycle Fatigue Failure of Aluminum Foam,” Kathleen A. Issen, Mathew D. Ingraham, Steven J. Kennedy, and David J. Morrison, IUTAM Symposium: Mechanics of Liquid and Solid Foams, Austin, Texas, May 8-13, 2011.
- “Evaluation of Inorganic Gun Barrel Lubricants,” D. Shipp, D.J. Morrison, T. Ritzko, R. Partch, D. Rasmussen, and D. Shipp, CAMP Annual Technical Meeting, Canandaigua, NY, May 20–21, 2010.
- “Low Cycle Fatigue Failure Processes in Aluminum Foam,” M. D. Ingraham, K. A. Issen, and D. J. Morrison, Joint ASCE/ASME/SES Conference on Mechanics and Materials (Mech 09), Blacksburg, Virginia, June 24-27, 2009.
- “Multiaxial Cyclic Plasticity of Pulsed Electrodeposited Ultrafine Grain Nickel,” N.R. Batane, D.J. Morrison, and J.C. Moosbrugger, International Symposium on Plasticity 2009, St. Thomas, V.I., January 3-8, 2009.
- “Modeling of Multiaxial Cyclic Plasticity in Conventional and Ultrafine Grain Nickel,” J.C. Moosbrugger, N.R. Batane, and D.J. Morrison, International Symposium on Plasticity 2009, St. Thomas, V.I., January 3-8, 2009.
- “Self-Healing Epoxy Composites Based On the Use of Nano(meso)porous Silica Capsules,” I. Sokolov, J.G. Kirk, S. Naik, J.C. Moosbrugger, D.J. Morrison, V.Privman, and D.O. Volkov, The Second International Conference on Self-Healing Materials, Chicago, Illinois, June 28 - July 1, 2009.
- “Strain Localization During Fatigue of Aluminum Foam,” M.D. Ingraham, C.J. DeMaria, K.A. Issen, and D.J. Morrison, 2008 ASME International Mechanical Engineering Congress and Exposition (IMECE08), Boston, MA, October 31-November 6, 2008.
- “Biaxial Cyclic Stress-Strain Response of Ultrafine Grain Nickel,” N.R. Batane, D.J. Morrison, and J.C. Moosbrugger, TMS Annual Meeting, New Orleans, LA, March 11, 2008.
- "Strain Localization During Low Cycle Fatigue of Aluminum Foam," M.D. Ingraham, C.J. DeMaria, K.A. Issen, and D.J. Morrison, MetFoam 2007, The Fifth International Conference on Porous Metals and Metallic Foams, Montreal, Canada, September 5-7, 2007.
- "Inhomogeneous Deformation and Fracture of Aluminum Foam under Uniaxial Tension," K.A. Issen, M.L. Black, C.J. Smith, and D.J. Morrison, MetFoam 2007, The Fifth International Conference on Porous Metals and Metallic Foams, Montreal, Canada, September 5-7, 2007.
- "Fracture Testing of Epoxy with Resin-Bearing Microcapsules for Self-Healing," J. Kirk, J.C. Moosbrugger, and D.J. Morrison, Meeting of the ASTM E08 Committee on Fatigue and Fracture, Atlanta, GA, November, 2006.
- “Fracture Testing of Epoxy with Resin-Bearing Microcapsules for Self Healing,” J.G. Kirk, J.C. Moosbrugger, D.J. Morrison, S. Naik, and I. Sokolov, Center for Advanced Materials Processing Fall Technical Meeting, Potsdam, NY, October 19-20, 2006.
- "Cyclic Plasticity and Fatigue of Ultrafine Grain Nickel Produced by Pulsed Electrodeposition," R. Batane, J. Moosbrugger, and D. Morrison, Center for Advanced Materials Processing Fall Technical Meeting, Potsdam, NY, October 19-20, 2006.
- "Inhomogeneous Deformation of Aluminum Foam Under Uniaxial Tension," M. Black, K. Issen, and D. Morrison, Center for Advanced Materials Processing Fall Technical Meeting, Potsdam, NY, October 19-20, 2006.

- "Low Cycle Fatigue of Aluminum Foam," C. DeMaria, D. Morrison, and K. Issen, Center for Advanced Materials Processing Fall Technical Meeting, Potsdam, NY, October 19-20, 2006.
- "Experimental Investigation of the Cyclic Plasticity of Ultra Fine Grain Nickel Produced by Electrodeposition," J.C. Moosbrugger, N.R. Batane, and D.J. Morrison, The 12th International Symposium on Plasticity - Plasticity 2006, Halifax, Nova Scotia, July 17-22, 2006.
- "Capabilities for Mechanical Properties Assessment," D.J. Morrison, CAMP Annual Technical Meeting, Canandaigua, NY, May 17 –19, 2006.
- "Cyclic Plasticity and Fatigue of Ultra Fine Grain Nickel Produced by Pulsed Electrodeposition," N.R. Batane, D.J. Morrison, and J.C. Moosbrugger, The Ninth International Fatigue Congress - Fatigue 2006, Atlanta, May 14-19, 2006.
- "Experiments and Modeling for Nickel Single Crystals Under Cyclic Loading," D. Zhou, J.C. Moosbrugger, Y. Jia, and D.J. Morrison, Plasticity '03 - The Tenth International Symposium on Plasticity and its Current Applications, Quebec, Canada, 2003.
- "Investigation of the Low Plastic Strain Amplitude Cyclic Plasticity of Single Crystal Nickel," D. Zhou, D.J. Morrison, J.C. Moosbrugger, and Y. Jia, 14th National Congress of Theoretical and Applied Mechanics, Blacksburg, Virginia, June 26, 2002.
- "Cyclic Plasticity of Nickel at Various Plastic Strain Amplitudes: Constricted Hysteresis Loops", Yan Jia, D.J. Morrison, and J.C. Moosbrugger, TMS Fall Meeting, Indianapolis, November 7, 2001.
- "Low Plastic Strain Amplitude Cyclic Plasticity of Nickel Single Crystals," John C. Moosbrugger, Yan Jia, and David J. Morrison, Plasticity '00: The Eighth International Symposium on Plasticity and its Current Applications, Whistler, B.C., Canada. July 16-20, 2000.
- "Cyclic Plasticity of Nickel at Low Strain Amplitude," Y. Jia, D.J. Morrison, and J.C. Moosbrugger, TMS/AIME Annual Meeting, Nashville, March 14, 2000.

Graduate Advisees:

Ph.D.:

Marissa LaCoursiere (Co-Advised with D. Aidun)

Ph.D. (Current Student)

Proposed Dissertation: High-Strength HISC Resistant Alloys for Subsea Applications

Heather Drieling

Ph.D. (Current Student)

Proposed Dissertation: "Effects of Trace Impurities on the Castability of Aluminum Alloys"

N.R. Batane (Co-Advised with J. Moosbrugger)

Ph.D. February, 2008

Dissertation: "Multiaxial Cyclic Plasticity of Ultrafine Grain Nickel Produced by Pulsed Electrodeposition"

Dong Zhou (Co-Advised with J. Moosbrugger)

Ph.D. October, 2004

Dissertation: "Substructure Based Modeling of Nickel Single Crystals Cycled at Low Plastic Strain Amplitude"

Yan Jia (Co-Advised with J. Moosbrugger)
Ph.D. January, 2002
Dissertation: "Cyclic Stress-Strain Response and Dislocation Substructure Evolution of Nickel"

Khalid Makhamreh (Co-advised with D. Aidun)
Ph.D. May, 1992
Dissertation: "Mechanical and Corrosion Properties of Flux-Cored Iron-Manganese-Aluminum Weld Metal"

M.S. and M.E.:

Andrew Sidnam
M.E. (Current Student)
Project Report: Simulation of Multi-Sensor Fusion

Andrew Grant
M.E. May, 2011
Project Report: Radar Development – The DISCO System

Andrew Scarlata
M.E. May, 2011
Project Report: Development of a Space Surveillance Radar System

Steven Kennedy (Co-Advised with K. Issen)
M.S. April, 2010
Thesis: "Tension-Compression Fatigue of Duocel Aluminum Foam"

Bryn Currie (Co-Advised with K. Janoyan)
M.E. September, 2009
Project Report: "Investigation of Vibration-Induced Generators and the Development of a Cantilevered Beam Design Suitable for Powering Structural Sensor Nodes"

Mathew Ingraham (Co-Advised with K. Issen)
M.S. April, 2008
Thesis: "Investigation of Low Cycle Fatigue Crack Initiation in Aluminum Foam"

Christopher DeMaria (Co-Advised with K. Issen)
M.S. April, 2007
Thesis: "Low Cycle Fatigue of Aluminum Foam"

Matthew Black (Co-Advised with K. Issen)
M.S. December, 2006
Thesis: "An Experimental Study on the Inhomogeneous Deformation of Aluminum Foam Under Uniaxial Tension"

Kyle Monaghan (Co-Advised with K. Willmert)
M.E. May, 2006
Project Report: "NX Tutorials and Configuration Details"

Gregory Wahl
M.S. May, 2004
Thesis: "Effect of Plating Parameters on the Microstructure of Electrodeposited Nickel"

Martin Anselm
M.S. September, 2002
Thesis: "Pb-free Flip-Chip Chip Scale Package (FCCSP) Reliability and Effects of Sn/37Pb Contamination"

Todd Stantz (Co-advised with D. Aidun)
M.S. January, 2001
Thesis: Weldability of Advanced Materials: Fusion Welding of Boron Carbide Reinforced Aluminum"

Nikki McDowell
M.E. December, 2000
Project Report: "The Design and Manufacture of an Enhanced Vacuum Cleaner for Industrial Use"

Daniel Blass
M.S. December, 1999
Thesis: "Flip Chip Reliability Issues"

Lawrence Neville
M.S. May, 1998
Thesis: "Welding of 2205 Duplex Stainless Steel: The Effects on Phase Balance and Mechanical Properties"

Chris Vitrone
M.E. December, 1997
Project Report: "Tension Torsion Mechanical Testing"

Chad Alger
M.E. May, 1996
Project Report: "Numerical Simulation of the Plastic Injection Molding Process"

Therese McCoy
M.E. May, 1995
Project Report: "Automation of the Plastic Injection Molding Process"

Robert Boersma
M.E. December, 1994
Project Report: "Design of a Controlled-Atmosphere Furnace for Fatigue Experiments"

Brian Curtis
M.E. May 1994
Project Report: "Computer-Aided Finite Element Analysis of Plastic Flow in the Injection Molding Process"

Marc Rousseau
M.E. July, 1993
Project Report: "Plastic Injection Molding Simulation"

Ramprasad Tulluri
M.S. September, 1994
Thesis: "Fatigue of Ion Irradiated Fe-Cr-Mn Stainless Steels"

Ivan Eldridge
M.S. May, 1994
Thesis: "Microstructures and Mechanical Properties of Welded Fe-12Cr-20Mn Low-Activation Stainless Steels for Fusion Reactor Applications"

Vivek Chopra
M.S. July, 1991
Thesis: "Effect of Grain Size on Cyclic Deformation of Polycrystalline Nickel"

Undergraduate Research Advisees:

Anthony Sinopoli (2010-2011) Clarkson Honors Program (Co-advised with K. Issen)
Project: "Micro-CT Scanning of Aluminum Foam"

Amanda Coons (2009) Clarkson Honors Program (Co-advised with K. Issen)
Project: "Digital Image Correlation of Cracks in Alporas Aluminum Foam"

Brendan Bialy (2008 – 2010) Clarkson Honors Program (Co-advised with K. Issen)
Project: "Mechanical Properties of Duocel Aluminum Foam"

Andrew Fox (2004-2005) NSF/REU - Clarkson Honors Program (Co-advised with J. Moosbrugger)
Project: "Magnetic Characteristics of Electrodeposited Nickel"

Kevin Wang (2001) (Co-advised with J. Moosbrugger)
Project: "Magnetic Characteristics of Nanocrystalline Nickel"

Aaron Buck (1999) NSF/REU
Project: "Microstructural and Mechanical Characterization of 2205 Duplex Stainless Steel"

Leona Karnali (1998–2000) Clarkson Honors Program
Project: "Microstructural Characterization of 2205 Duplex Stainless Steel"

Andrew Berryann (1998) NSF/REU (Co-advised with J. Moosbrugger)
Project: "Cyclic Plasticity"

Karen Williams (1997) NSF/REU (Co-advised with J. Moosbrugger)
Project: "Computer Analysis of Cyclic Deformation"

John Dean (1997) NSF/REU
Project: "Microstructural Characterization of 2205 Duplex Stainless Steel"

Andrew Berryann (1997) Clarkson Honors Program
Project: "Microstructural Characterization of 2205 Duplex Stainless Steel"

Genevieve Phillips (1994) NSF/REU
Project: "Pitting Corrosion of Duplex Stainless Steel Weldments"

Stephen Mascaro (1994) NSF/REU
Project: "Fatigue Crack Initiation in Polycrystalline Nickel"

Beth Lockwood (1994) NSF/REU
Project: "Numerical Differentiation of Hysteresis Loop Stress-Strain Data"

Charlotte Marshall (1993) NSF/REU
Project: "Computer Analysis of Hysteresis Loop Shape"

Lisa Hawk (1992) NSF/REU
Project: "Transverse TEM Specimen Preparation"

Teaching Experience:

ES 223 Rigid Body Dynamics
ME 341 Mechanics of Machine Elements
ME 365 Independent Project I
ME 366 Independent Project II
ME 390 Manufacturing Processes
ME 393 Analysis of Materials Processing
ME 399 Computer Aided Manufacturing
ME 490 Mechanical Behavior of Materials
ME 465 Advanced Independent Project
ME 591 Special Topics in Materials
ME 594 Special Topics in Manufacturing
ME 595 Physical Metallurgy
ME 596 Automated Manufacturing Systems

University and Department Service:

University:

Clarkson University Honors Program Research Committee (2010-Present)
Clarkson University Standing Review Committee (2007-Present)
Clarkson University Curriculum and Academic Policy Committee (Chair) (2007 - 2010)
Clarkson University Tenure Committee (2005-2008)
Clarkson University Library Task Force (Co-Chair) (2001-2006)
Clarkson University Faculty Senate (2000-2003)
Clarkson University Faculty Senate Library Committee (Co-Chair) (2000-2006)
Clarkson University Library Committee (1999-2000)
Clarkson Campus Safety Committee (1992-1996)
Clarkson Advisory Council for Engineering and Global Operations Management (1994-2010)
Clarkson School of Business Curriculum Review Committee (1995-1996)

Department:

MAE Department Graduate Committee Chair (2008 – Present)
MAE Department Transfer Student Evaluator (1997- 2003)
MAE Department Recruitment and Teaching Committee (1996-Present/Chair 1996-2007))
MAE Department Faculty Search and Development Committee (1996-1997)
MAE Department Development Committee (1992-1994)
MAE Department Laboratory and Facilities Committee (1991-1997, 2005 - Present)
MAE Department Curriculum Committee (1991-1997, 2007)
MAE Department Manufacturing Representative (1992 - Present)
Undergraduate Academic Advisor: Average of 25 students per year