

Curricular Vitae – Abridged Form

Jacqueline Reynolds Mozrall, Ph.D., CPE

Department of Industrial and Systems Engineering

Rochester Institute of Technology

81 Lomb Memorial Drive

Rochester, NY 14623-5603

1. Academic Rank: Department Head and Professor

2. Degrees:

Ph.D., Industrial Engineering, University at Buffalo (1994)

MS, Industrial Engineering, North Carolina State University (1989)

BS, Industrial Engineering, Rochester Institute of Technology (1987)

3. Dates of appointments and advancement in rank:

Years of Service: 14 years

Assistant Professor: 6/94 - 6/00

Department Head and Associate Professor: 7/00 – 6/07

Department Head and Professor: 7/08 - Present

4. Related Experience:

Leadership and Management of Industrial and Systems Engineering Department. Establishment of an environment that has resulted in increases in faculty scholarship *as well as* improvements in overall teaching effectiveness and advising, while at the same time managing significant increases in student enrollment. Committed to student teaching/learning and advising, while adapting scholarship focus to support College and Institute-level initiatives. Provided leadership through academic service at all levels of the Institute. As department have focused on the following initiatives:

- Strengthening of Faculty Profile, Scholarship, and Graduate Programs
- Strengthening of Undergraduate Curriculum
- Management of Significant Increases in Student Enrollment
- Reconnection with Alumni and Employers
- Development and Leadership of Department Assessment Processes

Leadership in Academic Program Development. (*leadership of initiative)

Industrial Engineering Minor *

Engineering Management Minor *

BS/ME dual degree program in Industrial Engineering*

BS/ME dual degree program in IE/Engineering Management*

BS/ME dual degree program in IE/Systems Engineering*

BS/MS dual degree program in Industrial Engineering*

MS in Industrial Engineering*

Ergonomic Program Option in IE

Leadership in Course Development. (*significant course redesign, ** new course development)

Ergonomics*

Human Factors*

Engineering Design*

Fundamentals of Industrial Engineering**

Multidisciplinary Senior Design**

Work Measurement and Analysis*

Women in Engineering (WE@RIT) Management Team and Program Development (<http://we.rit.edu>).

ShaPE (2007 -) Shadowing a Professional Engineer Program for Women Engineering Students

Go TECH (2007 -) Semi-annual, Technical Outreach Program for 8-11th Grade Females

WE're in Motion (2006 -) Annual Transitional Program for Incoming Women Engineering Students
K-12 Networking Event (2006 -) Annual event for the K-12 education community and outreach supporters
Everyday Engineering (2006 -) Annual, Two-week Engineering Outreach Camp for 4- 9th Grade Females
Kate's Community (2005 -) Comprehensive Community Building Program, Women Engineering Students
WE@RIT Retreat (2005 -) Annual Recruitment Program for Accepted Women Engineering Students
TEAK (2005) Traveling Engineering Activity Kits for 6th Grade In-Class Education, Designed by
Engineering Students
College and Careers, Women Engineering the Future Interactive Session (2005 -) Bi-annual Recruitment
Program for Rising High School Women Seniors
Mentoring Program (2004 -) Cluster Incoming and Upper-level Women Engineering Students through
Formal and Informal Mentoring Experiences
Park & Ride (2004 -) Bi-annual, Two-day Engineering Outreach Program for 6th – 8th Grade Girls
Expanding Your Horizons (2004 -) Semi-annual, Engineering Outreach Program for 8-10th Grade Females

Ergonomic Consultant.

Performed ergonomic consulting, including the development of corporate ergonomic programs, training in ergonomic principles, and ergonomic analysis/job design related to musculoskeletal injuries, general human factors issues, and environmental factors. Provided services for over 25 companies, nationally, including Dunlop Tire Company, Buffalo, NY, Eastman Kodak - Carolina Eastman Division, Columbia, SC; Hammer Lithograph, Rochester, NY; Leroy Industries, Leroy, NY; Northwest Airlines, Atlanta; Thomson Publishing, Rochester, NY; VF Corporation, Wyomissing, PA (divisions include: Jansport, Jantzen, Lee, Vanity Fair, Wrangler); Borg-Warner, Ithaca, NY; American Massage, Silver Springs, NY; Z-Axis, Phelps, NY; and Ilmak, Amherst, NY, (8/89 – 11/02).

Director, Human Performance Laboratory. *Industrial and Systems Engineering Department, RIT, Rochester, NY.*

Oversaw laboratory activities, including ergonomic training and outreach for small and medium-sized industries and the RIT Institute-Wide Ergonomics Program, (6/96 – 11/02).

Research Assistant. University at Buffalo, Buffalo, NY.

Provided support to an on-going FAA-sponsored human factors research program in commercial aviation maintenance and inspection. Conducted laboratory and field studies investigating inspection tasks and related functions. Conducted research sponsored by the National Institute on Aging to study the stress reactions towards various computer-interactive task designs, (8/89 - 5/94).

5. Consulting, Patents: Listed above under **4. Related Experience**

6. Professional Registration:

Certified Professional Ergonomist (CPE), Certificate No. 827, awarded 5/97 by the National Board of Certification in Professional Ergonomics, Bellingham, WA.

7. Publications:

Book Chapters

Mozrall, J.R., Reeve, N.R., Contomanolis, E. (2008). Assessment of Cooperative Education Experiences as Part of an Overall Program Assessment Plan, In W. Kelly (ed.), Assessment in Engineering Programs: Evolving Best Practices, Assessment in the Disciplines Volume 3, Association for Institutional Research, American Society for Engineering Education.

Journal Articles

Rogerson, P., Mozrall, J.R. "Development and Evaluation of New Training Method for CNC Machining", to be submitted to International Journal of Industrial Ergonomics".

Qin, J., Marshall, M.M., Mozrall, J.R., and Marschark, M. (2008). "Effects of pace and stress on upper extremity biomechanical responses in sign language interpreters," Ergonomics, 51:3, 274 - 289

Mozrall, J.Reynolds, Drury, C.G., Sharit, J., and Cerny, F. (2000). The effects of whole-body restriction on inspection performance, *Ergonomics*, 43, 1805-1823.

Drury, C.G., Broderick, R.L., Weidman, C.H., and Mozrall, J.R. (1999). A corporate-wide ergonomics programme: intervention and evaluation, *Ergonomics*, 42, 208-228.

Marshall, M. M., Mozrall, J.R., and Shealy, J.E. (1999). The Effects of Complex Wrist and Forearm Posture on Wrist Range of Motion, *Human Factors*, 41(2), 205-213.

Mozrall, J. R., and Drury, C.G. (1996). The effects of physical exertion on task performance in modern manufacturing: A taxonomy, a review, and a model, *Ergonomics*, 39(10), 1179-1213.

Reynolds, J.L., and Drury, C.G. (1994). A field methodology for the control of musculoskeletal injuries. *Applied Ergonomics*, 25, 3-16.

Vora, P., Reynolds, J.L., and Corl, K.G. (1992). Design and evaluation of an optical disk handling tool for a cleanroom environment. *Applied Ergonomics*, 23, 414-424.

Reynolds, J.L., Royster, L.H., and Pearson, R.G. (1990). Hearing conservation programs (HCP): The effectiveness of one company's HCP in a 12-hour work shift environment. *American Industrial Hygiene Association Journal*, 51, 437-446.

Reynolds, J.L., Royster, L.H., and Pearson, R.G. (1989). Hearing conservation programs (HCP): The effectiveness of one company's HCP in a 12-hour work shift environment. *Journal of the Acoustical Society of America*, Supplement 86.

Conference Presentations / Proceedings

Bailey, M., DeBartolo, E., Mozrall, J.R., Olney, J. (2008) Creating a comprehensive women in engineering organization using a managed resource strategy, *Proceedings of the 2008 American Society for Engineering Education Annual Conference & Exposition*, Pittsburg, PA. *Finalist for the Women in Engineering Division Best Paper Award.*

Matson, J.O., Mozrall, J.R. "An Industrial Engineering Body of Knowledge?" American Society of Engineering Education Conference, Honolulu, HI, June, 2007.

Qin, J., Marshall, M.M., Mozrall, J.R., and Marschark, M. (2006). "Effects of stress and work pace on upper extremity kinematic responses in sign language interpreters," *Proceedings of the 50th Annual Meeting of the Human Factors and Ergonomics Society.*

Matson, J.O., Patterson, P.E., Mozrall, J.R., Schuab, D.A. (2006). "Identifying a Common Set of Industrial Engineering Program Outcomes", *Industrial Engineering Research Conference*, Orlando, FL.

Stiebitz, P.H., Hensel, E.C., and Mozrall, J.R. (2004). Multidisciplinary Senior Design Curriculum at RIT. *Proceedings of 2004 American Society of Engineering Education Conference*, Salt Lake City, Utah.

Taylor, J.B., and Mozrall, J.R. (2004). An Integrated First Year Curriculum in Industrial and Systems Engineering. *Proceedings of the 2004 American Society of Engineering Education Conference*, Salt Lake City, Utah.

Mozrall, J.R., Hensel, E.C., and Stiebitz, P.H. (2004). Multidisciplinary Senior Design Program at RIT. *Proceedings of the 8th Annual Meeting of the National Collegiate Inventors and Innovators Alliance*, San Jose, CA.

Marshall, M. M., Mozrall, J.R., and Shealy, J.E. (1997). The Effects of Complex Wrist and Forearm Posture on Wrist Range of Motion. 41st Annual Meeting of the Human Factors and Ergonomics Society, Albuquerque, N.M.

Marshall, M.M., Mozrall, J. R., and Shealy, J.E. (1997). Range of motion for complex wrist movements. 6th Annual Industrial Engineering Research Conference, Miami Beach, FL .

Mozrall J. Reynolds, Shealy, J. E. (1995). An undergraduate human factors workbook. 39th Annual Meeting of the Human Factors and Ergonomics Society, San Diego, CA.

Mozrall, J.Reynolds, Drury, C.G., Sharit, J. and Cerny, F. (1994). The effects of different forms of restriction on inspection performance. 38th Annual Meeting of the Human Factors and Ergonomics Society, Nashville, TN.

Mozrall, J.Reynolds, Drury, C.G., Sharit, J. and Cerny, F. (1994). The effects of vertical restriction on inspection performance. 12th Triennial Congress of the International Ergonomics Association, Toronto, ONT.

Reynolds, J.L., and Drury, C.G. (1993). An evaluation of the visual environment in aircraft inspection. 37th Annual Meeting of the Human Factors and Ergonomics Society, Seattle, WA.

Reynolds, J.L., Gramopadhye, A., and Drury, C.G. (1992). Design of the aircraft inspection/maintenance visual environment. 7th FAA Office of Aviation Medicine Meeting on Human Factors Issues in Aircraft Maintenance and Inspection, Atlanta, GA.

Other Publications

Bailey, M., Anderson, M., DeBartolo, E., Lam, M., Mozrall, J. [pending release], WE@RIT Opens the World of Women in Engineering to Current and Prospective Students, On Campus with Women - triquarterly electronic newsletter published by the Association of American Colleges and Universities, www.ocww.org

8. Professional Societies:

Alpha Pi Mu National Industrial Engineering Honor Society
American Society of Engineering Education (ASEE)
Human Factors and Ergonomics Society (HFES)
Institute of Industrial Engineers (IIE)
Society of Women Engineers (SWE)

9. Honors and Awards:

Finalist for the ASEE 2008 Women in Engineering Division Best Paper Award: Bailey, M., DeBartolo, E., Mozrall, J., Olney, J. [2008] Creating a comprehensive women in engineering organization using a managed resource strategy.

WEPAN Women in Engineering Program Award, 2008

Applied Ergonomics Journal Award (1992). Awarded annually for the journal article which best demonstrates the comprehensive application of ergonomics to a practical problem. Vora, P., Reynolds, J.L., and Corl, K.G. (1992). Design and evaluation of an optical disk handling tool for a cleanroom environment. *Applied Ergonomics*, **23**, 414-424,

10. Institute and Professional Service:

Institute Service

Search Committee, Center for Quality and Applied Statistics Faculty (6/08 – Present)

Services Sciences, Management, and Engineering Working Group, Chair (9/08- Present)
Golisano Institute for Sustainability Curriculum Committee (9/08 – Present)
Institute Curriculum Committee (ICC), KGCOE Representative (9/03 – Present)
College Curriculum Committee (9/03 – Present)
Women in Engineering (WE@RIT) Management Team (9/03 – Present)
President’s Commission on Women (9/07- Present)
Richard and Virginia Eisenhart Provost’s Award Committee (9/05 – Present)
President’s Advisory Board on the Status of Women at RIT (9/04 – 6/07)
Search Committee Chair, Kate Gleason Endowed Professor (9/02 - 6/03)
Search Committee Member, Vice President for Student Affairs (3/01 – 10/01)
Multidisciplinary Senior Design Coordinating Committee (9/02 – 5/05)
College Accreditation and Assessment Committee (9/01 - Present)
College Representative to Institute Honors Program (6/01 – 1/03)
Industrial and Systems Engineering Honors Program Advocate (6/01 – 1/03)
Order of the Engineer Coordinating Committee (1/00 - Present)
Search Committee, Kate Gleason College of Engineering Dean (9/99 – 4/00)
College Graduate Studies Committee (9/94 – 6/00)
College Gleason Research Fund Committee (9/98 – 2003)
RIT Athletic Association (9/06 – Present)
RIT Athletic Hall of Fame Committee (9/96 - Present)

External Professional Service

Industrial Engineering Program Evaluator for Accreditation Board for Engineering and Technology (ABET) (6 visits, 5/01 – Present)
Council of Industrial Engineering Academic Department Heads - CIEADH (6/02 – Present)
CIEADH Curricular Innovation Awards Committee (6/07 – Present)
Human Factors and Ergonomics Society, Industrial Ergonomics Technical Group Newsletter Editor (1998-2000)
Reviewer, American Society for Engineering Education Conference
Reviewer, Applied Ergonomics
Reviewer, Journal of Women and Minorities in Science and Engineering

11. Professional Development Activities:

Proposals Awarded

WE@RIT We’re In Motion Program for Entering Women Engineering Students @ RIT

Toyota, Principal Investigator (8/08-7/09)

Through this donation, Toyota specifically sponsored the 2008 WE@RIT We’re In Motion Orientation Program for entering women engineering students, that includes hands-on engineering activities as well as orientation and social activities. This unique program is designed for women entering the Kate Gleason College of Engineering and focuses on their professional development as well as their needs for building a network of community and support. **Awarded:** \$25,000

Establishing the Foundation for Future Organizational Reform and Transformation @ RIT

NSF 07-582: ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers (ADVANCE) Co-Principal Investigator (10/08 – 9/10)
The ADVANCE IT-Start proposed project, “Establishing the Foundation for Future Organizational Reform and Transformation @ RIT” (EFFORT@RIT) is a two-year study across RIT’s four Science, Technology, Engineering and Mathematics (STEM) colleges. The project involves collecting and analyzing data on the factors that women doctoral candidates seek in an academic position and determining how well RIT provides (or fails to provide) for these through RIT faculty climate survey activities, objective data review, gap analysis, and benchmarking. Our overarching mission is to increase the representation and advancement of women in academic engineering and science at Rochester Institute of Technology. In order to achieve our mission, the goal of our institutional transformation start-up project is to develop an

evidence-based approach to address factors resulting in the under-representation of women in STEM faculty positions at RIT. **Awarded:** \$200,000

WE@RIT Building a Strong Community for Women Engineering Students @ RIT

Toyota Co-Principal Investigator (3/08-3/09)

Toyota has joined the corporate network of support for our community building and leadership development programs within WE@RIT. These unique programs are designed for women enrolled in the Kate Gleason College of Engineering and focus on their professional development as well as their needs for community and support. Through this donation, Toyota specifically sponsors the 2008 WE@RIT Annual Supporters Appreciation Luncheon where we conclude each academic year by giving thanks to those who make WE@RIT possible. **Awarded:** \$5,000

WE@RIT Outreach Programs: Enhancing Women's Participation in the Engineering Disciplines

Google Co-Principal Investigator (1/08 – 12/08)

Supports ongoing efforts to create an expanded pipeline through innovative pre-engineering outreach program. **Awarded:** \$1,500

WE@RIT Retention Programs: Building Strong Community for Women RIT Engineering Students

Harris Corporation's RF Communications Division Co-Principal Investigator (12/07 – 12/08)

Harris presented this gift to support WE@RIT Kate's Community through sponsorship of Kate's Community activities. Harris financial support of these programs would allow us to work together to host events while helping WE@RIT sustain program related costs including program staffing, marketing, student leadership development, event and program promotion all of which are vital to the successful implementation of Kate's Community. **Awarded:** \$10,000

Sponsorship of WE@RIT K-12 Networking Event

Harris Corporation's RF Communications Division Co-Principal Investigator (10/06 – 10/07)

Harris presented this gift to support WE@RIT in providing a supportive environment that allows women to succeed in an engineering program while increasing the pipeline of future potential women engineers. A WE@RIT K-12 Networking Reception was sponsored by Harris to attract middle and high school educators interested in meeting and networking with their peers while learning more about engineering and the importance of creating a more diverse workforce in this field. **Awarded:** \$10,000

Toyota Production Systems Laboratory at RIT

Toyota Corporation (3/06 – 8/09)

Support and development of a hands-on teaching laboratory with the mission to educate students in state-of-the-art assembly and production systems that integrate Toyota Production System concepts. **Awarded:** \$100K

Recruitment and Retention Programs for Women Engineering Students at RIT

Engineering Information Foundation Co-Principal Investigator (1/05 – 12/07)

Funding to expand and enhance existing innovative programs such as I Built My Computer@ RIT, a unique program that gives first-year women the tools and instruction to build their own personal computers. This activity not only introduces them to engineering faculty and RIT, but also allows them to forge relationships with other women in the program, and build a sense of community as they move toward graduation. **Awarded:** \$11,500

Evaluation of Scanners – Phase II

Hand Held Products, Co-Principal Investigator (12/06 – 6/07)

Project assessed the effect of scan beam angle on the wrist posture required to use a handheld portable data terminal for a variety of scanning tasks representative of the product's target applications. **Awarded:** \$13,500

Evaluation of Scanners

Hand Held Products, Co-Principal Investigator (12/05 - 6/06)

Project assessed the effect of scanner design on wrist posture required to use a handheld portable data terminal for a variety of scanning tasks representative of the product's target applications. **Awarded:** \$5,700

A Traveling Engineering Activity Kit (TEAK) for Middle and High School Girls

ASHRAE Undergraduate Senior Project Grant Application, Co-Principal Investigator (8/05 – 8/06)
Project involved designing and building five different hands-on educational kits referred to as “Traveling Engineering Activity Kit” or TEAK. Each kit's topic supports the energy and environment theme and includes several hours of classroom activities with detailed lesson plans and hands-on training aids. The intended audience for the kits is middle school science students in 6th grade and beta versions of the kits have been tested on over 150 middle school students to date. Fifth year engineering students participated in the design/build activities as part of their capstone multi-disciplinary design experience. Developing the kit enables RIT outreach efforts to educate boys and girls regarding energy-related topics within engineering. Awarded *ASHRAE Favorite Nationwide Student Project, 2006* (<http://www.rit.edu/~teak/>)
Awarded: \$5,000

Offering Professional Guidance to Women Engineering Students

New York State Perkins III Initiative Grant Co-Principal Investigator (6/04 – 7/07)
Programming that offers professional guidance to students who seek engineering or a related field as a career or profession with a focus on the special population of women preparing for nontraditional training and employment. The main target area provides support services for our target audience comprised of first and second year female engineering, engineering technology, and science students enrolled in two year degree programs within RIT. The effort focuses on the creation of a series of activities with an overarching goal of improving student retention and success in program completion. **Awarded:** \$19,700 annually (5 yrs)

Creating a Women's Mentoring Program within an Engineering Community at RIT

New York State Perkins III Initiative Grant Co-Principal Investigator (6/04 – 7/07)
Development and implementation of mentoring program focused on first and second year female students enrolled in the Kate Gleason College of Engineering in order to build confidence of women within engineering and specifically program participants, create personal support networks with peers and female role models for women within engineering, increase retention levels for first and second year women engineering students, improve the level of preparation of women going into engineering careers by showing them ways to handle the unique challenges that they may face. This funded effort includes the creation of college-level programs such as cluster-based mentoring; Kate's Community which is a series of programs designed to encourage women to become active participants within the college's mentoring program and/or women engineering community; professional shadowing program for first and second year women engineering students called the SHAPE Initiative; opportunities for upper class women engineering students to gain valuable leadership skills while providing direct support for grant-related activities.
Awarded: \$81,000

Support of Women in Engineering Program at RIT (WE@RIT)

Kodak Corporation, Principal Investigator (10/04 – 10/05)
Supported ongoing efforts to create pipelines, improve retention, and increase recruitment of women into engineering. **Awarded:** \$2,500

An Integrated First Year Curriculum in Industrial and Systems Engineering

RIT Provost's Learning and Innovation Proof of Concept Grant, Co-Principal Investigator (5/03 – 4/04)
Funding to support the development of a new, cohesive, introductory course sequence for the Industrial and Systems Engineering (ISE). It is proposed that first year courses be redesigned into a three-course sequence that provides a logical, progressive introduction to Industrial and Systems Engineering throughout the three quarters of the first year curriculum. The main themes of Industrial Engineering will be introduced to the students through hands-on, active learning by the use of case studies and laboratory work.
Awarded: \$20,000

Ergonomics, Safety, and Health Training and Implementation Training

NYS-DOL Occupational Safety and Health Training Program, Co-Principal Investigator (8/00 - 7/01)
Provided funding to support ergonomics, safety, and health training efforts at small and medium-sized companies in the Western New York region. Led development and delivery of on-site training and implementation projects. **Awarded:** \$156,000

Ergonomics, Safety, and Health Training

NYS-DOL Occupational Safety and Health Training Grant, Co-Principal Investigator (8/99 - 7/00)
Provided funding to support ergonomics, safety, and health training efforts at small and medium-sized companies in the Western New York region. Led development and delivery of on-site training and implementation projects. **Awarded:** \$100,000

Industrial Ergonomics Training and Implementation

NYS-DOL Occupational Safety and Health Training Program, Co-Principal Investigator (8/98 - 7/99)
Provided funding to support ergonomics, safety, and health training efforts at small and medium-sized companies in the Western New York region. Led development and delivery of on-site training and implementation projects. **Awarded:** \$62,000

Industrial Ergonomics Focus Group and Implementation Training

NYS-DOL Occupational Safety and Health Training Program, Co-Principal Investigator (8/97 - 7/98)
Provided funding to support ergonomics, safety, and health training efforts at small and medium-sized companies in the Western New York region. Led development and delivery of on-site training and implementation projects. **Awarded:** \$53,000

Development and Implementation of Institute-Wide Ergonomics Program

Rochester Institute of Technology, Principal Investigator, (7/99-6/00)
Led development of RIT Ergonomics program that included employee training, on-site work station design and evaluation, interfacing and networking with product vendors.
Awarded: \$45,000

Equity by Design

NSF Planning Grant, Program for Gender Equity in Science, Mathematics, Engineering and Technology, Co-Principal Investigator (1/99 - 12/99)
Develop the goals and objectives for a large collaborative project to create a positive, supportive, and sustaining academic environment for women students through extensive and on-going training of faculty members in gender neutral instruction and classroom management methods across STEM colleges at RIT as well as a local community college and several high schools that feed students into higher-level STEM programs. The planning grant would also develop a system to promote, track, and evaluate the number of activities conducted at the participating institutions that improve the academic environment for women in SMET courses and programs which would allow the evaluation of program effectiveness. **Awarded:** \$30,000