

## Faculty Curriculum Vitae - Biomedical Engineering Department

### **Name and Academic Rank:**

Renee D. Rogge, Assistant Professor of Biomedical Engineering

### **Degrees:**

Ph.D.	2000	Biomedical Engineering	University of Iowa
B.S.	1996	Biomedical Engineering	Tulane University

### **Rose-Hulman Service:**

Years of Service at Rose-Hulman: 2 years  
Original Appointment Date and Rank: August 2004, Assistant Professor  
Date(s) of Promotion(s) and Resulting Rank(s): N/A

### **Professional Experience:**

2004 – Present	<b>Assistant Professor</b> Applied Biology and Biomedical Engineering Department Rose-Hulman Institute of Technology, Terre Haute, IN
2000 – 2004	<b>Assistant Professor</b> Biomedical Engineering Mercer University, Macon, GA
Summer 2002, 2003	<b>NASA Faculty Fellow</b> Johnson Space Center, Houston, TX

**Consulting Activities:** None.

**Patents and Disclosures:** None.

**Professional Registration:** None

### **Principal Publications of the last five years:**

Livesay, G.A. & R.D. Rogge. "Vertical Mentoring: Closing the Loop in Design," in press, *Proceedings of the ASEE Annual Conference (2006)*.

Rogge, R.D. and G.A. Livesay. "Design Bootcamp: Getting in Shape for a Capstone Experience," in press, *Proceedings of the ASEE Annual Conference (2006)*.

Harrigan, K., Logan, R., Sluti, A., and R.D. Rogge. "Instrumented Sparring Vest to Aid in Martial Arts Scoring," in press, *Proceedings of the Rocky Mountain Bioengineering Symposium (2006)*.

Rogge, R., Chappell, A., & S. Rajulu. "Development and Validation of a Digital Human Model for Space Hardware Design and Evaluation," *SAE Digital Human Modeling Conference Proceedings (2005)*.

Sumner, L.B. & R.D. Rogge. "Teaching with Technology: A Strategy for Pedagogy and Practicality using CAE Software," *Proceedings of the ASEE Annual Conference (2005)*.

Rogge, R.D., Sumner, L.B., & J. Burtner. "Formative Assessment of a Computer-Aided Analysis Center: Plan Development and Preliminary Results," *Proceedings of the Frontiers in Education Conference (2004)*.

Rogge, R.D. "A Student-led Approach to Teaching Advanced Biomechanics," *Proceedings of the ASEE-Southeastern Section Meeting (2004)*.

Grosland, N.M., Rogge, R.D., and B.D. Adams. Influence of articular geometry on prosthetic wrist stability. *Clinical Orthopedics* 421:134-42, 2004.

Grosland, N.M., Rogge, R.D., & B.D. Adams. "Influence of articular geometry on prosthetic wrist stability," *Proceedings of the American Society of Biomechanics (2003)*.

Grosland, N.M., Rogge, R.D., Adams, B.D., & T.D. Brown. "Rotational dislocation resistance of a dual-curvature-radius total wrist implant," *Transactions of the Orthopaedic Research Society (2003)*.

Burtner, J.M. and R.D. Rogge. "Faculty advisors' management style and the development of students' leadership capabilities," *Proceedings of the Annual ASEE Conference (2003)*.

Rogge, R.D. "Development of a digital human model using whole body scanning technology," in the Johnson Space Center Technical Reports Documentation. JSC: 2003, Houston, TX.

Rogge, R.D. and J.M. Burtner. "Case study in management style and leadership roles of faculty advisors to students organizations," *Proceedings of the Annual ASEE-Southeastern Conference (2003)*.

Rogge, R.D., Adams, B.D., & V.K. Goel. An analysis of bone stresses and fixation stability using a finite element model of simulated distal radius fractures. *J Hand Surgery* 27A:86-92, 2002.

Rogge, R.D., Adams, B.D., Grosland, N.M., & V.K. Goel. "A finite element model to assess distal radius fracture stability," *Annual IEEE Engineering in Medicine and Biology Proceedings (2002)*.

O'Brien, E.M. & R.D. Rogge. "LabView usage as part of the biomedical engineering senior design experience," *Annual IEEE Engineering in Medicine and Biology Proceedings (2002)*.

Rogge, R.D., Grosland, N.M., Goel, V.K. & B.D. Adams. "Influence of site and severity of comminution on extra-articular distal radius fracture stability," *Proceedings of the ASB/WCB Joint Meeting (2002)*.

Barnett, S.K. & R.D. Rogge. "Journal article critiques: a complement to upper-level engineering courses," *Proceedings of the Annual ASEE-Southeastern Section Conference (2002)*.

R.D. Rogge. "Integrating finite element analysis into an undergraduate biomechanics course," *Proceedings of the Annual ASEE National Conference (2002)*.

Grosland, N.M., Rogge, R.D., Brown, T.D. and B.D. Adams. "Rotational dislocation propensity of an unconstrained total wrist implant," *Proceedings of the American Society of Biomechanics (2001)*.

Grosland, N.M., Rogge, R.D., & B.D. Adams. "Influence of articular geometry on prosthetic wrist stability," *Transactions of the Orthopaedic Research Society (2001)*.

#### **Membership in Scientific and Professional Societies:**

American Society for Engineering Education, Biomedical Engineering Society

#### **Selected Honors and Awards:**

W.M. Keck Foundation Award (for Mercer University), 2002-2005. NASA-Johnson Space Center Grant, 2003-2004. Ford Motor Company/SWE Grant, 2001-2002.

#### **Institutional and Professional Service of the last five years:**

*Selected Institutional Service:* Freshman Advisor, 2004-05 & 2005-06; Biomedical Engineering Academic Advisor, 2005-present; Admissions & Standings Committee, 2005-2006; Faculty Teller, 2005-2007; Freshman Orientation (Laptop Orientation Session & Professional/Community Responsibilities Session), Fall 2005; and IRPA RosE Portfolio Rater, 2005. *Selected Professional Service:* Abstract & paper reviewer: American Society for Engineering Education (2003-2005), Frontiers in Engineering Education (2003-2005). Grant Review Panel, 2006; Siemens' Westinghouse Competition Judge (2003-2005); ASEE Southeast Section Bioengineering Chair, 2004-2005 & Vice-Chair (2003-2004)

#### **Professional Development Activities of the last five years:**

Conducted research at Johnson Space Center in the Anthropometry & Biomechanics Facility, 2002 & 2003; Engineering Education Scholars Workshop for New Faculty (2001), SUCCEED Workshop for Engineering Education (2002), Engineering Case Studies Workshop (2001), Workshop on Multidisciplinary Design (2002), and Rose-Hulman sponsored on Teaching & Learning. Attended ASEE, FIE, BMES and Digital Human Modeling Conferences; Developed laboratory exercises for the Introduction to Biomedical Engineering course; Developed courses in Orthopaedic Biomechanics & Research Methods in Biomechanics; Served as a client for a Biomedical Engineering Senior Design Project; Design curriculum developer for Biomedical Engineering; Serving as the committee chair for one Master's student and on the Master's thesis committee for four graduate students.