

Resume

Sara E. McCaslin, Ph.D.

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Education

The University of Texas at Arlington

Ph.D. in Mechanical Engineering, 2003 - 2008

The University of Texas at Tyler

M.S. in Computer Science, 2000 - 2002

The University of Texas at Tyler

B.S. in Mechanical Engineering, 1998 - 2000

Tyler Junior College

A.A. in Engineering, 1996 - 1998

Work Experience

Freelance Writer and Editor, 2014 - Present

- Worked online with numerous clients internationally
- Ghostwriting books and blogs, editing books and technical papers, and assisting with grant proposals and award applications
- Major topics include computer science, hydraulic engineering, computer security, polymers

Assistant Professor of Mechanical Engineering, 2008 - 2015

The University of Texas at Tyler, Department of Mechanical Engineering

- Courses taught include programming, Statics, Dynamics, Mechanics of Materials, Mechanical System Design, Materials Science, Finite Element Analysis, Continuum Mechanics, and Composite Materials
- Converted four face-to-face graduate classes into online classes
- Created two new graduate courses
- Chaired on thesis committee and two graduate projects

- Performed research in Finite Element Analysis, Digital Image Processing, Online Teaching, and Engineering Education

Lecturer, 2003 - 2008

The University of Texas at Tyler

- Taught classes for both computer science and mechanical engineering
- Engineering Statics, Engineering Dynamics, ANSI C, Visual Basic, Computers in Society, and Introductory through Advanced Microsoft Office.

Student Assistant, 1998 - 2003

The University of Texas at Tyler, Department of Mechanical Engineering

Student Assistant, 1996 - 1998

Tyler Junior College, Vaughn Library and Department of Mathematics

Certifications

- Engineer-In-Training, State of Texas
- Hubspot Inbound Certified
- Hubspot Content Marketing Certified

Awards and Recognitions

- 2011 and 2012 Department of Mechanical Engineering Professor of the Year
- 2014 Department of Mechanical Engineering Professor of the Year

Selected Publications

McCaslin, S.E., Young, M., Increasing Student Motivation and Knowledge in Mechanical Engineering by Using Action Cameras and Video Productions, *Advances in Production Engineering & Management*, 10 (2), 87, 2015.

McCaslin, S.E., Brown, F., Modern Challenges in Converting a Traditional Engineering Class Into a Fully Online Course, *ASME 2012 International Mechanical Engineering Congress and Exposition*, 201-204, April 2012.

McCaslin, S.E., Shiakolas, P.S., Dennis, B.H., Lawrence, K.L., Closed-form stiffness matrices for higher order tetrahedral finite elements, *Advances in Engineering Software*, 44 (1), 75-79, 2012.

McCaslin, S.E., Young, M., Providing Strategies for Education in Engineering for Virtual Team Development, *International Conference on Engineering Education, Instructional Technology, Assessment, and E-learning*, 3 – 12, December 2010.

Kulkarni, A., **McCaslin, S.**, Knowledge Discovery from Multispectral Satellite Images, *IEEE Geoscience and Remote Sensing Letters*, 1(4), 246, 2004.