Curriculum Vita

Brenda S. Puck
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Personal Information

College Address:
University of Wisconsin – Stout
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Educational History

Master of Science, Industrial/Technology Education May 2009
University of Wisconsin-Stout, Menomonie, WI
Related course work: Developing and Validating a Knowledgebase for Professional Development Activities in Gender Equity for the Study of Technology.

Bachelor of Arts, International Business and Aviation Management May 1988
College of Saint Teresa, Winona, MN
Major: International Business
Minor: Aviation Management
Related course work: business and aviation management, law, labor/management relations, economics, finance, statistics, marketing, international politics, and ethics.

Professional Positions

Senior Lecturer, University of Wisconsin-Stout, Menomonie, WI (September 2001- current)

- *Engineering and Technology Department*. Courses Taught: Engineering Graphics Fundamentals, Computer-Assisted Design and Drafting, Design for Industry, Materials and Manufacturing Processes, Introduction to Engineering Materials, Impacts of Engineering Design, Engineering Graphics- Solid Modeling, Impacts of Engineering, Communication of Engineering Design 1.

- Work with Honors Contract Students.
- Work with special needs students.
- Work with special curriculum initiatives (PLTW).

Technology Education Teacher, Cambridge-Isanti Middle School and High School, Cambridge, MN (September 1999 – June 2001)

- *Technology Education Department*. Courses Taught: Introduction to Woodworking I, Graphic Design, and Photography.

Graduate Assistant, University of Wisconsin-Stout, Menomonie, WI (September 1999- August 2000)

- *Technology Education Department*.

Operations Manager, Heartland Aviation, Eau Claire, WI (August 1989- February 2000)

Operations Management Intern, Metropolitan Airports Commission, St. Paul, MN (April 1989- July 1989)

Professional Licenses and Certifications

Project Lead The Way – Principles of Engineering	Summer 2007
ArcGIS Training Course	May 2007
Solid Works Essentials Training Course	May 2006
Private Pilot's License	July 1989

Awards and Honors

Nominee, Girl Scout's Women of Courage, Confidence, and Character Award	April 2013
Cover Story, Wisconsin People and Ideas Magazine	Winter 2009
UW-Stout School of Education Partnership Award	2008
Cooperative Achievement Award for Graduate Research	2000

Membership in Professional Associations

AFS, *American Foundry Society*
SWE, *Society of Woman Engineers*

Professional Activities

Collaborator, UW-Stout STEM Outreach Collaborative, Future Engineers Look Like You. Outreach collaborators, Ghosh, A., Bizyukov, P. (2020)

Collaborator, Summer Fellowship, UW-Stout Engineering Graphics Curriculum. Research collaborators, Herrmann, M., Normand, A. (2018)

Research Collaborator, PAGENT research collaborators, Schofield, N., Kirkland, B., Fox, A., Gadke, D., Stratton, K. (2015-2018)
Research Question: Can geospatial science technologies aid individuals with ASD (Autism Spectrum Disorder) in developing educational and workforce development skills?

Director, STEPS for Girls (Science, Technology and Engineering Preview) Summer Camp, http://www.uwstout.edu/steps, (2010-2012)

- 7th Grade STEPS for Girls
- Advanced STEPS

Advisor, Society of Women Engineers (SWE) Student Chapter, University of Wisconsin-Stout (2015- present), **Co-Advisor** (2001-2015)

- Established Charter, (2005)
- Established chapter recognition with UW-Stout Student Association, (2005)
- Chaperone, SWE National Conference, Anaheim, CA (2005)
- Chaperone, SWE National Conference, Nashville, TN (2007)
- Chaperone, SWE Regional Conference, Peoria, IL (2007)
- Chaperone, SWE Regional Conference, Madison, WI (2012)
- Chaperone, SWE Regional Conference, Minneapolis, MN (2013)
- Chaperone, SWE Regional Conference, Platteville, WI (2016)
- Chaperone, SWE National Conference, Minneapolis, MN (2018)
- Chaperone, SWE National Conference, Anaheim, CA (2019)

Advisor, American Foundry Society (AFS)/Foundry Education Foundation (FEF) Student Chapter, University of Wisconsin-Stout (2016-present), **Co-Advisor** (2007-2016)

- Established chapter recognition with UW-Stout Student Association, (2007)
- Established Foundry Education Foundation (FEF) Affiliate status, (2019)

Competition Administrator and Judge, SkillsUSA Competition, University of Wisconsin-Stout (2006-present)

- AutoCAD (2006)
- Team Engineering Problem-Solving (2007, 2009-present)

Activities Director, STEPS for Girls (Science, Technology and Engineering Preview) Summer Camp, http://www.uwstout.edu/steps, (1998-2012)

- Assistant to the Director
- Airplane Curriculum Development
- Boat Curriculum Development
- Counselor's, Junior Counselor's, and Lab Assistant's Training Manuals

Activities Director, Advanced STEPS for Girls (Science, Technology and Engineering Preview) Summer Camp, http://www.uwstout.edu/steps, (2005-2010)

- Power Puzzle Curriculum
- Nanotechnology Curriculum
- Smart House Curriculum

Judges Coordinator, FIRST Lego League Regional Competition, University of Wisconsin-Stout (2005-2010)

- Senior Solutions (2012)
- Food Factor (2011)
- Body Forward (2010)
- Smart Move (2009)
- Climate Connection (2008)
- Power Puzzle (2007)
- Nanotechnology (2006)
- Ocean Odyssey (2005)

Member and Group Leader, Educational Support Unit Review Committee, University of Wisconsin-Stout (2004-2010)

Consultant, Issues in Technology Education Course, David Stricker, PhD, instructor, UW-Stout, (2010)

Competition Judge, Technology Education College Association (TECA) Super Mileage Vehicle Competition, University of Wisconsin-Stout (2002-2008, 2010, 2011)

Faculty Facilitator, Honors Program Colloquia small group discussions

- Roving Mars: Spirit, Opportunity, and the Exploration of the Red Planet (2009)
- Hamlet by William Shakespeare (2006)
- Meno by Plato (2005)
- Brunelleschi's Dome by Ross King (2005)
- Guns, Germs, and Steel by Jared Diamond (2004)

Competition Judge, Engineering Design, Minnesota Technology Challenge, Hennepin Technical College (2002, 2004, 2005, 2007)

Committee Member, Faculty Search and Screen, Technology Education Program, University of Wisconsin-Stout (2003-2004)

Honors Program, Mentor for Honors contract student for Skills USA Competition, Engineering Problem-Solving (2018); Professor for Honors contract student in RD205 – Design for Industry (2002)

Consultant, Design Prototyping, Klann Research and Development, LLC, Mechanical Spider, http://www.mechanicalspider.com/index.html, (2001-2003)

Attendee, Student Wisconsin Education Association (WEA) Spring Conference, LaCrosse, WI (1999)

Representative, Graduate Student Council, University of Wisconsin-Stout (1999-2000)

Instructor, College for Kids (1999)

Presenter, Girl Scout's "Challenges and Choices" program (1997-1999)

Speaker, Career Day speaker for area schools.

Editorial Activities

Reviewer, Woman In Engineering ProActive Network (WEPAN) National Conference (2004)

Grants

Bremer Bank, Otto Bremer Trust Grant
Social Return, STEPS for Girls (Science, Technology and Engineering Preview) Summer Camp, $30,000.00, Rodriguez, G. and Puck, B. 2008.

NASA SoI Mini-Grant
Society of Manufacturing Engineers, Educational Foundation, *Youth Program Grant*, $10,000.00, Heimdahl, P. and Puck, B. 2008.

Hewlett-Packard Technology for Teaching Grant Initiative, *Studying the Impact of Tablet PC use on Teaching and Student Learning in Materials, Metrology, and Machining Technology Laboratory Environments*, $30,000, Bee, D. and Puck, B. 2006. (unfunded)

Wisconsin Department of Public Instruction, *Tacklebox Project*, $30,000.00, Welty, K. and Puck, B. 1999-2000.

Papers Presented

Presenter, ASQ STEM Conference, Menomonie, WI (2012)

- *The STEPS Difference: 16 Years of Attracting Girls to Careers in Science, Technology, Engineering & Mathematics*
- *Women and Girls in STEM*. This "ASQ Higher Education Brief focuses on closing the gender gap that exists in STEM careers." http://asqknowledgecenter.tumblr.com/page/10

Presenter, UW-Stout Technology Education Conference, University of Wisconsin-Stout, Menomonie, WI (2008)

- *Manufacturing-Related Experiential Learning and Projects for Middle and High School*

Presenter, ASEE National Conference, Honolulu, HI (2007) (travel unfunded)

- *Ten Years of STEPS*
- *SME/STEPS*
- *Curriculum Projects for Middle and High School Students*

Presenter, ASEE North Midwest Sectional Conference, Menomonie, WI (2006)

- *Successful Outreach at UW-Stout*

Presenter, Woman In Engineering ProActive Network (WEPAN) National Conference (2004), Albuquerque, NM (travel unfunded)

- *Success of STEPS*

Presenter, American Society of Engineering Educators (ASEE) National Conference, Nashville, TN (2003)

- *Success of STEPS*

Presenter, Wisconsin Technology Education Conference (WTEA), Wisconsin Dells, WI (2000)

- *Wisconsin's Tackle Box Project: Preparing Female High School Students for Technological Careers*

Presenter, UW-Stout Twelfth Annual Student Research Day, Menomonie, WI (2000)

- *Developing and Validating a Knowledgebase for Professional Development Activities in Gender Equity for the Study of Technology*

Publications

Articles and Monographs

Puck, B. and Stary, W. (2012). *The STEPS Difference: 16 Years of Attracting Girls to Careers in Science, Technology, Engineering, & Mathematics*. ASQ Education Brief, www.asq.org. Received the "Editor's Pick" award.

Furst-Bowe, J. and Puck, B. (2010). *Taking STEPS to Promote STEM Careers*. ASQ Education Brief, www.asq.org

Welty, K. and Puck, B. (2000). *Modeling Athena: preparing young women for citizenship and work in a technological society. (Wisconsin DPI and UWS)*

International Experience

Languages: German and Spanish

Travel Abroad: High School exchange student to Germany (1983-1984); Cru East Asia Mission (2020)

Personal Philosophy/Goals

Philosophy:

Education is research, an exploration, into the body, soul, and mind of people.

The person is the potter, and education is the earthen vessel. The potter is, hopefully, continually shaping, refining, and filling the vessel to provide sustenance for life. Shaping this vessel is a lifelong process.

Education is freedom; ignorance is slavery. It is power, and an essential element of survival in this world. The ability to challenge the environment in which a person lives comes only through education.

Education is…formal and informal; visible and invisible; multicultural; thoughts; words, and actions.

Education is…the essence of life.

Goals:

I wish to explore ways to prepare people, especially young women, for work and citizenship in a technological society.

Key objectives in achieving my overlying goals include:

- Increase my own knowledge and skills.
- Investigate current and emerging trends in technology, engineering, education; and
- Design student-centered instructional methods that inspire people to find and follow their passion.