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Education

B.A. 1971 (Biology) Hampton Institute, Hampton, VA
M.A. 1972 (Biology) Hampton Institute, Hampton, VA
Ph.D. 1984 (Zoology) North Carolina State University, Raleigh, NC

Positions and Employment

1970-72 Graduate Teaching Assistant, Hampton Institute, Hampton, VA
1972-74 Instructor in Biology, Lincoln University, Jefferson City, MO
1974-77 Instructor in Biology, Hampton Institute, Hampton, VA
1977-80 Graduate Teaching Assistant, North Carolina State University, Raleigh, NC
1980-2003 Associate Professor, Dept. of Biological Sciences, Hampton University, Hampton, VA
2004-present Professor, Biology Department, Norfolk State University, Norfolk, VA

Other Experiences and Professional Memberships

1981-1991 Director, NASA/HU/ODU Summer Training Program
1989-1995 Director, Minority Biomedical Research Support Program
1992-1996 Director, VA HBCU Consortium for Science Education
1990-1993 Co-Director, QEM/MSE Annenburg CPB Teacher Leadership Corps
1990-1994 Co-Director, Educational Outreach, Center for Lidar and Atmospheric Science Students
1998-present Director, Head Start on Science, Math, and Technology Program for Head Start Prgm.
1999-present Member, VA State Dept. of Ed. Gifted Ed. Advisory Committee
2000-present P.I., NASA Astrobiology Program
1999-present Coordinator, Hampton University Science Education Center
1990-present Member, National Science Teachers Association
1994-1996 Board Member, Williamsburg AIDS Network
1998-present External Reviewer, NAS Education/Public Outreach Proposal Committees
1998 External Evaluator, Saint Paul's College summer Science & Math Institute
1997 Consultant, Woodrow Wilson Environmental Institute, Princeton University
1999-2000 Director, NSF CPMSA Project SUCCESS CERTL Summer Institute
2000 Director, NSF High School Summer Research Institute
1999-present Consultant, NASA / Langley Preservice Teacher Institute
2000-present Consultant Coastal Rural Systemic Initiative (VA, MD, NC components / NSF funded)
2001-present Consultant, Shaw University/ NASA-Based Curriculum Improvement Project
2001-present Coordinator for Education/Public Outreach, Center for Atmospheric Sciences
2004- Advisory Panel Member, NASA Mid-Atlantic Region Space Science Broker Organization

Honors

- 1998 Outstanding Educator Award, Quality Education for Minorities Network
2003 National Aeronautics & Space Administration PSTI Faculty Ruination
2004 NSU Spartan Academy Presenter Award

Selected publications and presentations.

- Bowman, A.W. Fall 2001. *Using Everyday Materials To Keep Science At Your Reach*. Journal of Research in Childhood Education.
- Bowman, A.W. 2002. *Science on a Shoestring*. National Science Teachers Association Annual Meeting. San Diego, CA.
- Bowman, A.W. 2002. *Bringing Astrobiology Down to Earth for K-12 Students*. National Science Teachers Association Annual Meeting. San Diego, CA.
- Bowman, A.W. 2002. *The Science Cooking Show*. National Science Teachers Association Annual Meeting. San Diego, CA.
- Bowman, A.W. 2002. *Science-At-Your-Reach*. National Science Teachers Association Annual Meeting, San Diego, CA.
- Bowman, A.W., W. Pryor, B. Faison, S. Bailey, and N. Parham. 2002. *The Evolution of a Novel Astrobiology Course*. 2nd Annual Meeting of the National Astrobiology Institute. NASA Ames Research Center. Mountain View, CA.
- Bowman, A. W. 2002. *The Hampton University Astrobiology Curriculum*. Minority Institutions Astrobiology Collaborative Meeting / NASA MU-SPIN Program. Goddard Space Flight Center. Green Belt, MD. //mums.gsfc.nasa.gov/real/MIAC/abowman.ram
- Bowman, A. W. 2003. *The Hampton University Science Education Center*. Quality Education for Minorities Network Annual Meeting. Washington, DC.
- Bowman, A. W. 2003. *The Hampton University Astrobiology Curriculum*. Bennett College NASA Space Week. Greensboro, NC
- Bowman, A. W. 2003. *Astrobiology for the Undergraduate – A Novel Approach*. National Science Teachers Association Annual Meeting. Philadelphia, PA.
- Bowman, A. W. 2003. *Happy Lake: A K-12 Environmental Simulation*. National Science Teachers Association Annual Meeting. Philadelphia, PA.
- Bowman, A. W. 2003. *Astrobiology for the Pre-Service Teacher*. NASA Annual Pre-Service Teacher Conference. Alexandria, VA.
- Bowman, A. W. 2003. *Science Instruction: The NASA Langley Research Center's Approach to the Training of Pre-Service Elementary Teachers for the NASA Pre-Service Teacher Institute*. NASA Annual Pre-Service Teacher Conference. Alexandria, VA.
- Bowman, A. W. 2003. *The Hampton University Science Education Center: A Model Training Facility For Teacher Training, Students Enrichment, and Informal Science Education*. VA State Dept. of Education Statewide Conference on the Preparation of Middle School Science and Mathematics Teachers. James Madison University, Harrisonburg, VA.

- Kenney, N.J., A. Bowman, K.S. Korach, J.C. Barrett, and D.S. Solomon. 2003. *Effect of exogenous Epidermal-like growth factors on mammary gland development and differentiation in the estrogen Receptor-alpha knockout (ERKO) mouse*. Breast Cancer Research and Treatment 79: 161-173.
- Bowman, A. W. 2004. *Nationwide Overview of Minority Programs in Sciences*. Council for the Advancement And Support of Education (CASE) Symposium. Norfolk State University, Norfolk, VA.
- Holmes, I. M., and Bowman, A. W. 2004. *The Safe, Effective, and Fun Way to Use Live Plant and Animal Specimens in the Early Elementary Classroom*. National Science Teachers Association Annual Meeting, Atlanta, GA.
- Bowman, A. W., and M.I. Holmes. 2004. *The Science Cooking Show*. National Science Teachers Association Annual Meeting, Atlanta, GA.
- Bowman, A. W., and M.I. Holmes. 2004. *Hands-on Science Activities for Development of Critical Thinking In Elementary School*. National Science Teachers Association Annual Meeting, Atlanta, GA.
- Bowman, A. W. 2004. *The Relationship of Minority Populations to Space Science Initiatives*. NASA Ames Minority Juneteenth Symposium. Mountain View, CA.
- Bowman, A. W. 2004. *The History of Science*. NASA Ames Pre-Service Teacher Institute (PSTI). Mountain View, CA.
- Bowman A. W. 2004. *Hands-on Activities for K-6 Children*. NASA Ames Migrate Teacher Summer Program. Mountain View, CA.
- Bowman, A. W. 2004. *Problem-Based Learning for Middle School Science Instruction*. Fund for the Improvement of Post Secondary Education (FIPSE) Summer Colloquium: Preparing Future Middle School Science and Mathematics Teachers. Radford University. Radford, VA.
- Bowman A. W. 2004. *Hands-on Activities for Elementary Science*. King & Queen County Public Schools Professional Development Initiative. King & Queen County, VA.
- Bowman, A. W., and Leo Edwards. 2004. *Contemporary Methods for the Training of Pre-Service Teachers*. NASA Summer Professional Development Workshop for Higher Education Faculty. NASA Langley Research Center. Hampton, VA.
- Bowman, A. W. 2004. *Hands-on, Investigative Science Methods for K-8 Instruction*. NASA Langley Pre-Service Teacher Institute (PSTI). NASA Langley Research Center.
- Bowman, A. W. 2005. *Consilience: The Unity of Knowledge*. NASA Pre-Service Conference. Arlington, VA.
- Bowman, A. W. 2005. *Pre-Medical Advisement*. National Student Medical Association Conference. St. Louis, MO
- Bowman, A. W. 2005. *Addressing Minority Disparities in MSE Disciplines: The NSU Science Ed. Center*. QEM Network Annual Conference. Washington, D.C.
- Bowman, A. W. 2005. Science Career Preparation and Selection. DINIMAS Program Lecture. Norfolk State University. Norfolk, VA.
- Bowman, A. W. 2005. *The Pleasure of Finding Things Out: The Life of Richard Feynman*. Beta Kappa Xi Scientific Honor Society Induction Ceremony. Norfolk State University. Norfolk, VA.

- Bowman, A. W., and M.I. Holmes. 2006. *Eco-Watch Presentation: Aquatic Habitats*. Captain John Smith Elementary School. Hampton, VA.
- Bowman, A. W. 2006. *What Every Elementary School Teachers Needs to Know About Astronomy*. NASA Pre-Service Conference. Arlington, VA.
- Bowman, A. W. 2006. *Co-Authorship Networks and Patterns of Scientific Collaboration*. NSU School of Science. Norfolk Stte University. Norfolk, VA.
- Bowman, A. W. 2006. *Cancer Education & Laboratory Research for Undergraduates*. NSU Biology Dept./Senior Seminar. NSU Biology Dept. Norfolk State University. Norfolk, VA.
- Clark, I., and A. W. Bowman. 2006. *Eugenics*. NSU Biology Dept., Norfolk State University. Norfolk, VA.
- Bowman, A. W. 2006. *Scoring of Breast Cancer Lesions in Transgenic Mice: A Model for Undergraduate Cancer Biology Training*. Old Dominion Research Symposium. Old Dominion Unversity. Norfolk, VA.
- Bowman, A. W. 2006. *The NSU Science Education Center*. Old Dominion Research Symposium. Old Dominion University. Norfolk, VA.
- Bowman, A. W. 2006. *Hands-on Science in Biology for High School Students: Enzymes*. NSU Summer Science Academy. NSU School of Science. Norfolk State University. Norfolk, VA.
- Bowman, A. W. 2006. *Critical Thinking and Scientific Literacy*. Summer Engineering Program. NSU School of Science. Norfolk State Univeristy. Norfolk, VA.
- Bowman, A. W. 2006. *Hands-on, Investigative Science Methods for K-8 Instruction*. NASA Langley Pre-Service Teacher Institute (PSTI). NASA Langley Research Center.
- Bowman, A. W. 2006. *Hands-on Health Science Activities. Allied Health Summer Science Camp for Middle School Students*. NSU School of Science. Norfolk State University. Norfolk, VA.
- Bowman, A. W. 2006. *Hands-on Science for the Christian Summer Science Academy*. NSU School of Science. Norfolk State University. Norfolk, VA.
- Bowman, A. W. 2007. *Everyone Is Fully Prepared for Science, So Let's Go...* NASA/NIA/UMES Pre-Service Teacher Conference. Arlington, VA.
- Bowman, A. W. 2007. *Hands-on Biology Activities for Secondary School Students*. NSU Saturday Scientist Academy. Norfolk, VA.
- Bowman, A. W., and M.I. Holmes. 2008. *The Science Cooking Show*. National Science Teachers Association Annual Meeting, Boston, MA
- Bowman, A. W. 2008. "Science to Impress: The Science of Art (color, light, perspective, and form)" NSU School of Education. Norfolk, VA.