Robert T. Smith, Ph.D.

Armstrong State University

EDUCATION AND LEADERSHIP TRAINING

2014 – 2015 **Becoming a Provost Academy**, American Association of State Colleges and Universities and American Academic Leadership Institute
2013 **Institute for Management and Leadership in Education**
Harvard University Graduate School of Education, Cambridge, MA
1982 **Ph.D., Mathematics**, University of Delaware, Newark, DE
1978 **M.S., Mathematics**, University of Delaware, Newark, DE
1976 **B.S., Mathematics**, Widener College, Chester, PA
1975 **B.A., German**, Widener College, Chester, PA

ACADEMIC LEADERSHIP EXPERIENCE

Armstrong State University, Savannah, GA
Provost and Vice President for Academic Affairs, June 2015 to present

Millersville University of Pennsylvania, Millersville, PA
Dean, School of Science and Mathematics, July 2009 to May 2015
Acting Dean, School of Science and Mathematics, July 2003 through July 2004
Chair, Department of Mathematics, March 1999 through June 2009
Assistant Chair, Department of Mathematics, August 1990 to March 1999

FACULTY AND RESEARCH APPOINTMENTS

Armstrong State University, Savannah, GA
Professor of Mathematics, June 2015 to present

Millersville University of Pennsylvania, Millersville, PA
Professor of Mathematics, August 1992 to May 2015
Associate Professor of Mathematics, August 1987 to August 1992

Virginia Polytechnic Institute and State University (Virginia Tech), Blacksburg, VA
Assistant Professor of Mathematics, September 1982 to August 1987

U.S. Army Ballistic Research Laboratory, Aberdeen Proving Ground, MD
Mathematician, Summer 1983 (Summer Faculty Research Program)

PRIMARY RESPONSIBILITIES AS PROVOST AND VPAA

- University's Chief Academic Officer, responsible for all academic programs, personnel
- Provide vision, planning and leadership for Division of Academic Affairs
- Oversight of Academic Affairs Division budgets

- Represent the University in the absence of the President
- Direct supervision of Academic Affairs leadership team, including deans of the four colleges, two associate provosts, Budget Director, Director of the Armstrong Liberty Center, University Registrar and University Librarian
- Responsible for hiring, professional development, evaluation, promotion and tenure for all university faculty and academic staff, including nearly 300 full-time faculty
- Promote excellence in teaching and learning, scholarship and service
- Responsible for retention and other student success initiatives
- Co-chair University Enrollment Management Council, sharing responsibility for all enrollment-related areas

KEY ACCOMPLISHMENTS WHILE PROVOST AND VPAA

- Focus on retention, increasing first year retention rate from 70% to 74% in first year
- Implemented registration reforms to increase student satisfaction and improve retention, initiating wait lists and registration advisement PINs
- Co-led the development of Armstrong's first Strategic Enrollment Management Plan
- Partnered with Student Affairs Division to facilitate enrollment growth, halting a number of years of decreases
- Commissioned development of first Academic Affairs Strategic Plan
- Stabilized Academic Affairs leadership team, hiring three permanent deans and several department heads and directors, replacing interim appointments
- Increased use of data in making academic decisions
- Expanded use of Grades First (early warning) and Degree Works (degree audit) software
- Implemented EAB's Student Success Collaborative, SSC Campus
- Initiated centralized freshman/sophomore academic advising to support retention
- Restructured Offices of International Studies, Faculty Professional Development and Online and Blended Learning
- Commissioned new faculty salary study, using as a basis for market adjustments
- Expanded Move-on-When-Ready program, working with area high schools to offer our classes on their campuses
- Revised faculty search process to increase diversity of faculty hires
- Supported introduction and expansion of Professional Development School model
- Supported curricular development in several key areas, including cyber security, health informatics and a collaborative Doctor of Nursing Practice proposal
- Supported programs for active-duty military, veterans and their dependents on main campus and at Armstrong Liberty Center
- Supported development of the Center for Applied Cyber Education, designated by the National Security Agency and the Department of Homeland Security as a national Center of Excellence in Cyber Security
- Reorganized summer course offerings, creating a new May-mester session

PRIMARY RESPONSIBILITIES AS DEAN OF SCIENCE AND MATHEMATICS

- Chief Academic Officer for the School of Science and Mathematics
- Provide vision, planning, leadership and advocacy for the School
- Overall responsibility for the Departments of Biology, Chemistry, Computer Science, Earth Sciences, Mathematics, Nursing and Physics, plus the Center for Disaster Research

and Education, with approximately 1900 undergraduate and graduate students majoring in twenty baccalaureate and four master's degree programs
- Responsible for hiring, development and evaluation of faculty and staff (with eighty-two tenure-track faculty lines, plus more than forty adjunct faculty and staff positions)
- Oversee recruitment and retention initiatives for science and mathematics majors
- Promote excellence in teaching and learning, scholarship and service
- Oversee personnel, operating, equipment and other budgets for all School units, totaling approximately $10.6M annually
- Negotiate agreements for academic and clinical affiliations and intellectual property with partner universities, medical centers and other entities, working with university legal counsel
- Represent the School to all external constituencies, including state agencies, funding agencies, industry, alumni and donors
- Responsible for space allocation and renovation planning for five academic buildings
- Oversee outreach activities for the School: the annual Women in Mathematics and Science Conference, the Brossman-Frisbie Science Lectureship and Competition, the Central PA Regional Science Olympiad Competition and the Summer Science Training Program for middle school and high school students

KEY ACCOMPLISHMENTS WHILE DEAN OF SCIENCE AND MATHEMATICS

- Developed and implemented strategies to increase retention of science and mathematics majors
  - Introduced living-learning communities for all science and mathematics majors
  - Led science and mathematics departments to develop freshman seminar courses for majors, with principal goal of increasing retention and graduation rates
  - Facilitated implementation of innovative teaching technologies in science and mathematics courses

- Significantly increased recruitment of science and mathematics majors
  - Developed STEM (Science, Technology, Engineering and Mathematics) Visitation Days, hosting prospective students and families on campus
  - Number of science and mathematics majors increased 27 percent over five years, even as overall university enrollment held steady

- Led development and implementation of a new strategic plan for the School of Science and Mathematics

- Increased diversity of School's faculty and student body
  - 50% of faculty hires over three years were underrepresented candidates
  - Doubled number of underrepresented students majoring in science or mathematics over five years

- Led significant increase in grant-writing activities in the School (National Science Foundation, US Department of Education, NASA, US Department of Commerce, PASSHE, US Army, PA DCED Seed assistance grants, etc.)

- Led initiatives at the Chincoteague Bay Field Station (CBFS) at the Marine Science Consortium, Wallops Island, VA
  - Assumed leadership role in developing and implementing first-ever strategic plan
  - Led substantive changes in registration and billing processes, developing an online registration system implemented across all member universities
  - Led consortium to more flexible scheduling model, allowing more efficient facility usage
  - Facilitated introduction of new and innovative courses at the CBFS
  - Doubled the number of MU students at the CBFS and increased the total number of college students by 60% in first year of reforms

- Led the School through several rounds of major budget cuts, while preserving essential major and elective courses for our majors, as well as seats in general education courses

- Served as Chair of the Advisory Board for the Innovation Transfer Network (ITN), a regional network of colleges, universities and non-profits, facilitating collaborative applied research and technology transfer to business and industry

- Facilitated enrollment growth in nascent online interdisciplinary MS program in Emergency Management, including hiring program's first dedicated full-time faculty member

- Facilitated development and implementation of new interdisciplinary MS program in Integrated Scientific Applications

- Doubled enrollments in BSN and MSN Nursing programs, through curricular revisions and by adding off-site BSN cohorts in partnership with the Coatesville Veterans Administration Medical Center and Harrisburg Area Community College, meeting major needs in the community

- Developed early admission agreements in Osteopathic Medicine, Dentistry and Pharmacy with partner universities

- Developed 3+2 cooperative engineering agreement (BA Physics, BSE Engineering) and 4+2 (BS Physics, MS Engineering) with Penn State University

- Developed 3+2 cooperative engineering agreement with the University of Delaware (BA Physics, MS Materials Science and Engineering)

- Partnered with Lancaster Regional Medical Center, to turn around rigorous, but low-enrolled Respiratory Therapy program to a program operating at capacity

- Worked closely with University Advancement staff to facilitate major gifts to the School, funding additional scholarship endowments and creating new endowments supporting undergraduate research, faculty scholarship and a dean's discretionary fund

- Oversaw re-accreditation of BSN and MSN Nursing programs by National League for Nursing Accrediting Commission (NLNAC)

- Oversaw re-accreditation of BS Computer Science program by Accreditation Board for Engineering and Technology (ABET)

- Led science and mathematics education programs to continued Specialty Professional Association (SPA) Nationally Recognized status by the National Science Teachers Association (NSTA) and National Council of Teachers of Mathematics (NCTM), as part of our 2013 NCATE re-accreditation process

- Assumed responsibility for the Millersville University Center for Disaster Research and Education, revamping its budget and facilitating growth of programs

- Assisted with early funding for the Software Productization Center, a Millersville University initiative that pairs local businesses with cross-disciplinary teams of faculty and students (drawn from the Computer Science, Art and Design, and Business and Marketing Departments) to address projects of interest to the companies
  - Led the transition to a sustainable model for the Center, once grant funding ran out

- Fostered increased collaboration between the School of Science and Mathematics and the School of Education
  - Facilitated development of new middle-level education programs, with specializations in mathematics and science
  - Assembled teams of science and mathematics faculty, together with education faculty in writing several large successful external grant proposals

RECENT MAJOR LEADERSHIP / SERVICE ROLES

President's Cabinet, 2015 – present

Chair, Deans' Council, 2015 – present

Chair, Academic Affairs Council, 2015 – present

Co-Chair, ASU Enrollment Management Council, 2015 – present

Consolidation Implementation Committee, 2017 – present

Co-Chair, Consolidation Working Group on Academic Structure, 2017 – present

University Master Plan Committee, 2016

Chair, Search Committee for Chief Information Officer, 2016

PA Innovation Transfer Network (ITN) Advisory Board, 2009 – 2015
- **Chair**: 2012 – 2015, **Vice-Chair**: 2009 – 2012
- Assumed a leadership role in resolving major staffing issues and multiple budget crises
- Helped staff devise a complete restructuring of the leadership team

- Worked with leadership team to replicate the ITN concept in other regions of the state

PA Transfer Articulation Oversight Committee, 2010 – 2015
- Statewide body tasked by the PA State Legislature with developing and implementing uniform statewide program-to-program articulations among all PA community colleges and state universities

Special State Panel on Common Core Mathematics Standards, 2010
- Appointed to panel by the PA State Board of Education
- Developed recommendations to the Board on implementation of the Mathematics Common Core Standards in PA
- Led the writing team

School of Science and Mathematics School Council, 1999 – 2015
- Chair, 2003 – 2004 and 2009 – 2015

Millersville University Deans' Council, 2003 – 2004, 2009 – 2015

President's Advisory Leadership Council, 2004 – 2015

Soar to Greatness **Capital Campaign Cabinet** ($85M Capital Campaign), 2006 – 2012
- Cabinet member, 2006 – 2012
- Chair, Employee Campaign Committee, 2007 – 2012
- Campaign Equipment Endowment Committee, 2007 – 2012
- Chair, Student/Faculty Research / Faculty Development Committee, 2007 – 2009

Chincoteague Bay Field Station at the Marine Science Consortium, 2009 – 2015
- Strategic Planning Teams (2009 and 2013)
- Led Consortium in developing numerous reforms
- Liaison with NASA Wallops Flight Facility, 2013 – 2015

Millersville University Transformation Steering Committee, 2011 – 2013
- Action Team on University Structures/Reorganization
- Action Team on Innovation in Pedagogy

President's Commission for Cultural Diversity and Inclusion, 2009 – 2015

Strategic Planning Team on Organizational Agility, 2013 – 2014

MU Emergency Response Team, 2010 – 2015

APSCUF (Faculty Union) Meet and Discuss Administrative Team 2013 – 2015

Project PULSE (Partnership to Understand and Lead STEM Education), 2013 – 2015
- Worked closely with Lancaster-Lebanon Intermediate Unit 13 staff

- Assembled MU team of STEM and education faculty to develop and implement summer enrichment workshops for middle and high school science and mathematics teachers from across central PA, funded by a US Department of Education grant

Project ARRMS (Achieving Rigor and Relevance in Mathematics and Science), 2011 – 2012

- Worked closely with Lancaster-Lebanon Intermediate Unit 13 (regional public school entity) staff
- Led MU team of science and mathematics faculty to develop and implement summer enrichment workshops for middle and high school science and mathematics teachers from across central PA, funded by a US Department of Education grant

MU System Accountability Plan (Performance Funding) Task Force, 2012

Chair, Search Committee for Dean of Education, 2014

Search Committee for the Vice President for Enrollment Management, 2013

Search Committee for Dean of the School of Humanities and Social Sciences, 2012 – 2013

Chair, Search Committee for Associate Dean of the School of Humanities and Social Sciences, 2013 – 2014

Search Committee for Assistant Vice President for Facilities, 2011 – 2012

Chair, Search Committee for Associate Provost for Academic Administration, 2010 – 2011

Chair, Search Committee for Associate Dean of Graduate and Professional Studies, 2009 – 2010

Chair, Search Committee for Vice President for Finance and Administration, 2005 – 2006

Chair, MU Middle States Accreditation Self-Study Working Group #1, 2008 – 2009

Online Evaluation Taskforce, 2006 (Chair); 2011 – 2013

Capital Campaign Planning Committee, 2003 – 2004

Chair, Wickersham Hall Renovation Planning Committee, 2003 – 2006

PRIMARY RESPONSIBILITIES AS CHAIR OF THE MATHEMATICS DEPARTMENT

- Provided vision, planning, leadership and budgetary oversight for a department of twenty-one tenure-track faculty, plus numerous adjunct faculty and 260 majors in four baccalaureate programs and one master's degree program
- Responsible for hiring, development and evaluation of faculty
- Responsible for all scheduling, ensuring sufficient seats in major and general education courses, serving more than 2,000 students each semester
- Responsible for managing all aspects of Wickersham Hall (housing mathematics faculty, classrooms, computer laboratory and study spaces)

KEY DEPARTMENTAL ACCOMPLISHMENTS AS CHAIR

- Lifecycle Renovation of Wickersham Hall (2004 – 2006)
  - Responsible for planning for complete renovation, working with architects and engineers from initial design phase through project completion
  - Liaison with multiple prime contractors, state construction personnel, university construction managers and IT professionals throughout construction phase
  - Worked with construction professionals to phase the construction, allowing partial occupancy in time for start of classes
  - Responsible for planning and coordinating relocation of faculty and classes into and out of temporary space
  - Responsible for acquisition of all building furnishings ($100K budget)

- Implemented innovative approaches to teaching developmental mathematics, resulting in improved performance of developmental students

- Increased number of mathematics majors from approximately 155 to approximately 260, through improved recruiting and use of scholarships

- Increased percentage of female tenure-track mathematics faculty from 10% to 25%

- Developed program with the School of Education to share responsibility for supervision of mathematics student teachers

- Overhauled department's outcomes assessment process

- Awarded "Nationally Recognized" designation from NCTM (National Council of Teachers of Mathematics), as part of NCATE accreditation of Teacher Education programs

- Expanded number of scholarships available to mathematics majors, through NSF-CSEMS and NSF-S-STEM grant awards and expanded endowed scholarships

- Implemented improved mathematics placement process, including integrating placement test results into the online registration system, ensuring accurate placement of students and significantly improving success of education majors on Basic Skills Test
- Implemented a simplified waiting list process that is unique to the Department of Mathematics, ensuring that students who need courses get them

EXTERNAL GRANTS FUNDED

1. **Co-Principal Investigator**, National Science Foundation Robert Noyce Scholarship grant awarded for **$1,200,000**, to fund a program for preparing secondary mathematics teachers for high need school districts, 2011 – 2016.

2. **Principal Investigator**, PA State System of Higher Education (PASSHE) grant funded for **$135,000** to support training of emergency certified science teachers, 2010 – 2015.

3. **Co-Principal Investigator**, National Science Foundation S-STEM (Scholarships for Science, Technology, Engineering and Mathematics) grant awarded for **$585,000**, to provide scholarships for financially underprivileged mathematics and science majors, 2008 – 2015.

4. **Principal Investigator**, National Science Foundation CSEMS (Computer Science, Engineering and Mathematics Scholarships) grant funded for **$347,000**, to provide scholarships for financially underprivileged mathematics and computer science majors, 2001 – 2008.

5. **Principal Investigator**, PASSHE (PA State System of Higher Education) Social Equity grant, funded for **$7,500**, to continue project for improving the performance of students in developmental mathematics through supplemental instruction, 2007 – 2008.

6. **Principal Investigator**, PASSHE Social Equity grant, funded for **$7,500**, to continue project for improving the performance of students in developmental mathematics through supplemental instruction, 2006 – 2007.

7. **Principal Investigator**, PASSHE Social Equity grant, funded for **$12,500**, to improve the performance of underrepresented students in developmental mathematics through supplemental instruction, 2005 – 2006.

8. **Principal Investigator**, PASSHE Social Equity grant, funded for **$11,750**, to provide funding for Summer Science Training Program, to provide scholarships for underrepresented students, 2004.

TEXTBOOKS PUBLISHED

1. **Calculus, Fourth Edition,** Robert T. Smith and Roland B. Minton, McGraw-Hill, New York, 1109 pages, 2012. (Korean translation: 2013.)

2. **Calculus, Early Transcendental Functions, Fourth Edition,** Robert T. Smith and Roland B. Minton, McGraw-Hill, New York, 1117 pages, 2012.

3. **Calculus, Third Edition** (published in three volumes: Single Variable, Multi-Variable and Combined), Robert T. Smith and Roland B. Minton, McGraw-Hill, New York, 1253 pages, 2008.

4. **Calculus, Early Transcendental Functions, Third Edition** (published in three volumes: Single Variable, Multi-Variable and Combined), Robert T. Smith and Roland B. Minton, McGraw-Hill, New York, 1261 pages, 2007. (Korean translation: 2012.)

5. **Calculus, Concepts and Connections,** Robert T. Smith and Roland B. Minton, McGraw-Hill, New York, 1104 pages, 2006.

6. **Calculus, Second Edition** (published in three volumes: Single Variable, Multi-Variable and Combined), Robert T. Smith and Roland B. Minton, McGraw-Hill, New York, 1271 pages, 2002. (Chinese translation: 2006; Korean translation: 2004; Spanish translation: 2003.)

7. **Calculus, Premiere Edition,** Robert T. Smith and Roland B. Minton, McGraw-Hill, New York, 1115 pages, 2000. (Spanish translation: 2001.)

8. **Discovering Calculus with the Casio fx-7700 and the Casio fx-8700,** Robert T. Smith and Roland B. Minton, McGraw-Hill, New York, 261 pages, 1994.

9. **Discovering Calculus with the TI-81 and the TI-85,** Robert T. Smith and Roland B. Minton, McGraw-Hill, New York, 271 pages, 1993.

10. **Discovering Calculus with the HP-28 and the HP-48**, Robert T. Smith and Roland B. Minton, McGraw-Hill, New York, 277 pages, 1992.

PEER-REVIEWED PAPERS PUBLISHED

1. *Reconstruction of Tomographic Images from Sparse Data Sets by a New Finite Element Maximum Entropy Approach*, R.T. Smith, C.K. Zoltani, G.J. Klem and M.W. Coleman, **Applied Optics**, **30**, 1991, pp. 573-582.

2. *A New Sparse Data Tomographic Image Reconstruction Algorithm,* C.K. Zoltani, R.T. Smith and G.J. Klem, **Advances in Remote Sensing Retrieval Methods**, A. Deepak, et al, eds., Deepak Publishing, Hampton, Virginia, 1989, pp. 179-186.

3. *A Hilbert Space Approach to Maximum Entropy Reconstruction,* M. Klaus and R.T. Smith, **Mathematical Methods in the Applied Sciences, 10**, 1988, pp. 397-406.

4. *An Application of the Finite Element Method to Maximum Entropy Tomographic Image Reconstruction,* R.T. Smith and C.K. Zoltani, **Journal of Scientific Computing, 3**, 1987, pp. 283-295.

5. *Stable Methods for an Inverse Problem in Acoustic Scattering by an Obstacle and an Inhomogeneous Medium*, R.T. Smith, **Mathematical Methods in the Applied Sciences, 7**, 1985, pp. 385-415.

6. *An Inverse Acoustic Scattering Problem for an Obstacle with an Impedance Boundary Condition*, R.T. Smith, **Journal of Mathematical Analysis and Applications, 105**, 1985, pp. 333-356.

7. *A Stable Method for an Inverse Problem in Acoustic Scattering by an Obstacle with an Impedance Boundary Condition*, R.T. Smith, **Proceedings of the Royal Society of Edinburgh, 98A**, 1984, pp. 355-364.

EXTERNAL RESEARCH FUNDING

1. **Principal Investigator**, *Reconstruction of Tomographic Images from Sparse Data using Finite Element Techniques*, U.S. Army Ballistic Research Laboratory, Aberdeen Proving Ground, Maryland, through Battelle Columbus Laboratories, Columbus, Ohio, December 1984 through November 1985.

2. **Principal Investigator**, *Reconstruction of Three Dimensional Tomographic Images from Sparse Data*, U.S. Army Ballistic Research Laboratory, Aberdeen Proving Ground, Maryland, through Battelle Columbus Laboratories, Columbus, Ohio, January 1984 through September 1984.

HONORS AND AWARDS

2016 Phi Kappa Phi (National Honor Society)

2015 Named Dean of Science and Mathematics Emeritus
Millersville University of Pennsylvania

1989 Teaching Fellow, 1st Summer Academy for the Advancement of College Teaching
Pennsylvania State System of Higher Education

1987 Nominated for University Certificate of Teaching Excellence
Virginia Polytechnic Institute and State University (Virginia Tech)

1982 Nominated for University Excellence-in-Teaching Award, University of Delaware

1980 1st Annual Baxter-Sloyer Excellence-in-Teaching Award
Department of Mathematical Sciences, University of Delaware

1977 Pi Mu Epsilon (National Mathematics Honor Society)

PROFESSIONAL AFFILIATIONS

Council of Colleges of Arts and Sciences (2009 to 2015)
Council on Undergraduate Research (2009 to 2015)
Society for Industrial and Applied Mathematics (1979 to present)
American Mathematical Society (1977 to present)
Mathematical Association of America (1976 to present)

OTHER PROFESSIONAL ACTIVITIES

1. Reviewer for the **Journal of Computational and Applied Mathematics**

2. Reviewer for McGraw-Hill Publishing Company
3. Consultant, Glencoe/McGraw-Hill for revision of **Advanced Mathematical Concepts**
4. Consultant, U.S. Army Ballistic Research Laboratory, Aberdeen Proving Ground, MD
5. Reviewer for PWS/Kent Publishing Company
6. Reviewer for Worth Publishing Company
7. Reviewer for Saunders Publishing Company