Matthew W. Muterspaugh, Ph.D.

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PROFESSIONAL SUMMARY

Results-driven Dean and Higher Education Administrator with 11 years of experience in academic leadership, strategic planning, and faculty development. Proven track record securing over $4 million in competitive federal grants and managing multi-campus operations with 120+ faculty and staff. Expert in curriculum development, accreditation processes, distance education, and fostering student success initiatives.

CORE COMPETENCIES

- Astrophysics: Instrumentation, Observatory Ops
- Academic Leadership & Strategic Planning
- Faculty Development & Staff Management
- Budget Management & Financial Planning
- Grant Writing & Research Administration
- Curriculum Development & Assessment
- Accreditation & Compliance Management
- Distance Education & Technology Integration
- Student Success & Retention Strategies
- Program Development & CTE Programs

PROFESSIONAL EXPERIENCE

Dean of Brentwood Center and Distance Education

Employer: Los Medanos College, Pittsburg, CA | Employed September 2024 – June 2026

- Supervised Brentwood Center Branch Campus, distance education courses, libraries, and tutoring services across multiple locations
- Led Process Technology CTE program transformation from near-extinction to thriving program through strategic planning and resource allocation
- Reoriented college professional development program toward ACCJC Regular and Substantive Interaction (RSI) compliance, establishing faculty training courses, seminars, and a peer scholar community
- Founded Brentwood Advisory Group — open to employees, students, and campus neighbors — to build community, address concerns, and advocate for local student needs
- Position to be eliminated June 30, 2026 due to district-wide reduction in force

Dean

Employer: Columbia State Community College, Columbia, TN | Employed June 2019 – June 2024

- Led 5-campus Science, Technology, and Mathematics Division with 45 full-time faculty and staff plus 75 adjunct faculty members
- Achieved ACBSP re-accreditation for Business and Computer Science programs
- Ensured compliance with SACS-COC accreditation, Tennessee Board of Regents, and Tennessee Higher Education Commission policies
- Managed division budgets and strategic planning initiatives
- Recruited, hired, and mentored faculty and staff while conducting performance evaluations
- Facilitated resolution of student grievances and academic policy matters
- Built articulation agreements with high schools and 4-year universities

Director and Associate Professor

Employer: Tennessee State University, Nashville, TN | Employed January 2009 – May 2019

- Directed Center of Excellence in Information Systems Engineering and Management (2014-2017)
- Leveraged internal funding to achieve over 3X return in competitive grant and industry funding
- Secured Center's first basic research contracts from Boeing and Naval Surface Warfare Division
- TSU achieved Carnegie R2 classification in 2018 following this period of expanded research productivity
- Coordinated multidisciplinary research teams across 5 colleges
- Taught courses in Physics, Astronomy, Electricity and Magnetism, Quantum Mechanics, and Optics

Vice President

Employer: Fairborn Observatory, Washington Camp, Arizona | Employed 2015 – 2019

- Managed operations at world's first fully robotic observatory with twelve 1- to 2-meter class telescopes
- Constructed new instrumentation to increase observatory capabilities

Townes Prize Postdoctoral Fellow

Employer: University of California Berkeley, Berkeley, CA | Employed July 2006 – December 2008

- Astrophysics research, instrumentation, and grant writing

Postdoctoral Scholar

Employer: California Institute of Technology, Pasadena, CA | Employed July 2005 – June 2006

- Astrophysics research and algorithm development

EDUCATION

Doctor of Philosophy, Physics

School: Massachusetts Institute of Technology, Cambridge, MA | Graduated June 2005

GPA: 4.8/5.0 | Thesis: "Binary Star Systems and Extrasolar Planets"

Master of Business Administration

School: Tennessee State University, Nashville, TN | Graduated August 2018

GPA: 4.0/4.0

Bachelor of Science, Physics (with Honors and Highest Distinction)

School: Indiana University, Bloomington, IN | Graduated May 2000

GPA: 3.86/4.0

Bachelor of Science, Mathematics (with Highest Distinction)

School: Indiana University, Bloomington, IN | Graduated May 2000

GPA: 3.86/4.0

CERTIFICATIONS

Project Management Professional (PMP)

Project Management Institute | Certification #3903348 | August 2024 – August 2027

PMI Mini-Certifications and Badges:

- Generative AI Overview for Project Managers
- Data Landscape of GenAI for Project Managers
- Talking to AI: Prompt Engineering for Project Managers
- Practical Application of Generative AI for Project Managers

Venomous Snake Handler, Level 1

Save the Snakes | September 2025

GRANTS AND RESEARCH FUNDING

Over $4 million in competitive federal research grants including:

- $999,631 - Principal Investigator: NSF-PAARE "Curriculum, Infrastructure, and Research Partnership Supporting Pursuit of Graduate Study in Astronomy at Tennessee State University" (September 2011 – August 2017)
- $609,678 - Principal Investigator: NSF-MRI "Development of VISION: The Next Generation Science Camera for the Navy Prototype Optical Interferometer" (March 2010 – February 2013)
- $349,144 - Principal Investigator: NSF "CCDNI Campus Design: Internet2 Infrastructure to Enable Research in Big Data Science and Engineering at Tennessee State University" (October 2015 – September 2018)
- $180,016 - Principal Investigator: NASA/Vanderbilt University Tennessee Space Grant Consortium (June 2015 – June 2018)
- $997,741 - Co-Investigator: NSF-ATI "Digital Spectral Analysis of Heterodyne Signals from the Infrared Spatial Interferometer" (July 2008 – June 2013)

TECHNICAL SKILLS

Programming Languages: C/C++, Perl, AI Prompt Engineering and API functions

Software Applications: Microsoft Office Suite, Outlook, Banner, D2L, Zoom, Microsoft Teams

Operating Systems: Windows, MacOS, Linux

Specialized Skills: Multi-processing and multi-threaded programming (pthreads and MPICH/Beowulf clusters), custom algorithm development, non-linear model fitting, statistical analysis

PUBLICATIONS AND RESEARCH

Over 60 refereed scientific publications in peer-reviewed journals including Astrophysical Journal, Astronomical Journal, and Monthly Notices of the Royal Astronomical Society. Over 80 unrefereed publications and conference proceedings. Recent publications include:

- "The PHASES Differential Astrometry Data Archive V: Candidate Substellar Companions to Binary Systems" (AJ, 140, 1657, 2010)
- "Binary Parameters for the Recurrent Nova T Coronae Borealis" (ApJ, 983, 1, 76, 2025)

- "The Radial Velocity Tatooine Search for Circumbinary Planets: Planet Detection Limits for a Sample of Double-Lined Binary Stars---Initial Results from Keck I/Hires, Shane/CAT/Hamspec, and TNG/Sarg Observations" (ApJ, 704, 503, 2009)

- "The first super-Earth detection from the high cadence and high radial velocity precision Dharma Planet Survey" (MNRAS, 480, 2, 2411, 2018)

HONORS AND AWARDS

- Townes Prize Postdoctoral Fellowship, University of California Berkeley

- Michelson Graduate Fellowship, NASA

- Optical Interferometry Thesis of the Year, SPIE 2006