V. Creative, Scholarly and Professional Development

A broad scholarly knowledge of the field in which one teaches is requisite for effective teaching at all levels. Creative work and production of significant scholarship are essential to effective teaching…Evidence of development, scholarship, and creativity includes the publications of significant scholarly contributions, publication of teaching methodology and materials, public lectures, participation in responsible positions in professional organizations, creative production and performance and other professional activity that demonstrate concern with the advancement of the faculty member's discipline (Faculty Policy Manual).

A. Publications (please list books, monographs, periodical articles, reviews, etc. – please include title, publisher or journal, and date):

Work in progress:

Physics Textbook, "Connected Physics", self-published, available online, but only two chapters are posted as of January 2018.

http://physics.thomasmore.edu/ConnectedPhysics/

Physics Labs (adapted to online format from paper, with original modifications)

http://physics.thomasmore.edu/Labs/TMC-lab-setup.html
http://physics.thomasmore.edu/Labs/121/
http://physics.thomasmore.edu/Labs/122/
http://physics.thomasmore.edu/Labs/220/

I have other publications from 1999-2006, but my understanding is that this is only supposed to list items since my previous promotion, which I take to be either 2007 when I was hired as an Associate Professor or 2011 when I was granted tenure. These are listed in an attached document called "Appendix D - Publication List"

B. Other creative work (please list art, music, drama film, choreography, and other creative original productions – please include description and date):

Click here to enter text.

C. Speaking engagements (please include the audience, topic, place, and date):

National "April Meeting" of the American Physical Society (APS);
"Using PreTeXt to produce a better online text (or lab manual)"; Columbus, OH; April 2018
http://meetings.aps.org/Meeting/APR18/Session/U10.7

SACS-COC National Conference; J.Ernst and **J.Christensen**
"QEP Engagement: An Innovative 3rd-Year Review"; Nashville, TN; December 2014

Ideas-to-Action (I2A) Institute;
"Paul-Elder Intellectual Virtues"; University of Louisville, Louisville, KY; May 2014

Faculty Brown Bag, open to all faculty;
"Using PreTeXt to produce a better online text (or lab manual)"; TMC; April 2018

Faculty Development Day, mandatory for all full-time faculty;
Poster: "Third-Year Report; Where are we now?"; TMC; January 2014
Poster: "Proficiency Development"; TMC; January 2012
"Critical Thinking at TMC"; TMC; January 2011
"Critical Thinking Implementation"; TMC; August 2010

QEP Workshop open to all TMC faculty (full- and part-time);
"Paul-Elder Elements of Reason"; TMC; multiple versions 2011-2016
"Paul-Elder Intellectual Standards"; TMC; multiple versions 2011-2016
"Paul-Elder Elements of Reason"; TMC; multiple versions 2013-2015
"CAT Analogs"; TMC; October 2013
"Close Reading"; TMC; February 2012
"CAT Skills Assessment"; TMC; September 2010

Multi-Session 2-Day Workshop Series open to all TMC Faculty (full- and part-time);[9]
"Critical Thinking Techniques" [Six 30-90 minute workshops]; TMC; May 2016
"Critical Thinking Techniques" [day-long series of 30-minute workshops]; TMC; May 2012
"Critical Thinking Techniques" [day-long series of 30-minute workshops]; TMC; May 2011

Summer-Training Workshops for QEP Participants;
"Peer-Mentors Help Teaching" [a 3-day series of training workshops]; TMC; Summer 2015
"Critical Thinking Techniques" [a 3-day series of training workshops]; TMC; Summer 2013-2014
"Critical Thinking Techniques" [seven bi-weekly 2-hour workshops]; TMC; Summer 2010-2012

[9] We hosted a "featured speaker" (See also "Section G Special Projects) and supplemented with a series of Faculty Development Workshops. I was not the only person to present workshops, but I gave 3+ each year.

D. Outreach into local community that reflects professional expertise (please list activities such as serving on local governing boards, Boards of Educations, participating in community organizations, seminar and discussion leadership, church leadership, etc.) that are not already listed in section IV #2:

Professional Development for local high-school faculty, through the Thomas More STEM Initiative (TSI):

- “Predicting Train Wrecks”, June 2015
- “Managing Data in Excel", Jun 2013
- “Excel Dynamic Graphing", Jun 2013
- “Language of Calculus", Jun 2012
- “Data Analysis", Jun 2011

High-School and Grade-School STEM Camps for students

- Grade-School Secret Adventure Camp, Jul 2012
- High-School TSI Camp: “Weighing the Untouchable", Jul 2012
- Grade-School Secret Adventure Camp, Jul 2011
- High-School TSI Camp: “Why Toast Falls Jelly-side Down", Jul 2010
- High-School TSI Camp: “Weighing the Earth", Jul 2009

Invited Talks and Public Lectures:

- Invited Talk: “A Liberal Arts Education", Sept 2015
- Astronomy Lecture Series: “Charming Quarks", Feb 2013
- Astronomy Lecture Series: “Superluminal Neutrinos", Oct 2011
- Astronomy Lecture Series: “Big Questions: Relativity", Feb 2010
- Astronomy Lecture Series: “Big Questions: Quantum Mechanics", Nov 2010
- Astronomy Lecture Series: “Big Questions: Black Holes", Sep 2009
- Astronomy Lecture Series: “The Science of Angels and Demons", May 2009

E. Membership, participation, and leadership in scholarly organizations (please list scholarly organizations in which you are a member, any special office you have held in the organization, and papers delivered at a professional organization, etc.):

Of the memberships listed below, some memberships were not continuous. They are listed in order of level of participation and then by date joined.

American Association of Physics Teachers (AAPT), joined 1996

I have attended conferences and workshops (Section H), and I am a reviewer (seven articles in six years) for the American Journal of Physics (AJP).

American Physical Society (APS), Joined 1987

I have attended conferences and workshops (Section H), presented in 2018 (above), and in the past I brought students to these meetings.

American Association of University Professors (AAUP), joined 2002

I was the recorder for the local chapter from 2003-2004.

Project Kaleidoscope, F21 Member, joined 2002; inactive

Attended workshops on classroom techniques.

Organizations in which I have limited association with and even more limited activity

Omicron Delta Kappa (Leadership Honors Society), joined 2003
Kappa Mu Epsilon (Mathematics Honors Society), joined 2000
Sigma Pi Sigma (Physics Honors Society), joined 1999
Society of Physics Students, joined 1987

F. Consultation service:

Click here to enter text.

G. Special projects (please list grants applied for, those awarded, and list and special projects you have engaged in):

Grants:

KY Space Grant Consortium (Co-PI) $5000, Nov 2010

Projects:

Thomas More University:

Recorder, Faculty Policy Manual revisions

Pre-Engineering Projects:

Pre-Engineering course 3-day training, UK College of Engineering July 2018
Pre-Engineering Advisor Conference, UK College of Engineering Aug 2009, Aug 2010

American Journal of Physics:

Reviewer, American Journal of Physics, 2012-Present

Quality Enhancement Plan:

Host QEP 1-Day Workshop (Benander/Lightner) May 2012
Host QEP 2-Day Workshop (Stewart Ross) May 2011
Host QEP 2-Day Workshop (Gerald Nosich) May 2010
QEP Newsletter 2010-2013
Led Scoring Session for CAT Assessment (usually 2x/year) 2010-2016

H. Please list workshops, seminars, etc. which have aided in your professional development:

Physics Teacher Education Coalition (PhysTEC);
webinar on "A Study of Thriving Physics Teacher Education Programs"; Nov 13, 2018
https://www.phystec.org/thriving/?

National APS; Columbus, OH; April 2018 (Physics Education)
https://www.aps.org/meetings/april/abstracts.cfm

Pedagogicon, EKU Richmond, KY May 2017 (Innovations in Teaching and Learning)
https://studio.eku.edu/2017-pedagogicon

ACAD Conference, Milwaukee, WI Jun 2016 (Academic Leadership)
"Catching the Wave: Energy and Renewal in Liberal Arts Education"
https://acad.org/meetingsevents/conferences/

Multiple Ideas-to-Action, Louisville, KY (Critical Thinking and Classroom Techniques)
http://louisville.edu/ideastoaction/programs/institute
May 2014
May 2010

Multiple SACS-COC Conferences (Accreditation and Assessment)
Nashville, TN Dec 2014
Atlanta, GA Dec 2013
Dallas, TX Dec 2012

Multiple CAT[10] Train-the-Trainer Workshops (https://www.tntech.edu/cat/training/)
CAT-Analogs Workshop, Kona, HI Jun 2013
CAT Training Workshop, Boulder, CO Oct 2009

APS Experienced Faculty Workshop; College Park, MD; Apr 2013 (Physics Education)
https://www.aapt.org/Conferences/efw.cfm

Int'l Conference on Critical Thinking, Berkeley, CA Jul 2010 (Critical Thinking and Classroom Techniques)
http://www.criticalthinking.org/pages/30th-international-conference/740

OH-section APS, Ohio Northern, OH Apr 2009

I. Other interests (please list cultural, intellectual, recreational, avocational, voluntary, and service oriented activities not mentioned above):

Current: Disc golf, horse camping (AQHA and APHA member), baking bread, backgammon, scrabble, strategy games, dogs, cats, home improvement.
Past avocations: Bicycling, racquetball, soccer
Past involvements: Northern Kentucky Horse Network, Equine Rehabilitation[11], vintage base ball.

[10] CAT = Critical thinking Assessment Test
[11] Rehabilitation for disabled children (and some adults) via physical therapy on horseback.

APPENDIX D: PUBLICATION[1] LIST[2]

Refereed Journals (1997-2006)

"Magnetic polarizability of hadrons from lattice QCD in the background field method"
F. Lee, L. Zhou, W. Wilcox, and J. Christensen, Phys. Rev. D 73, 034503 (2006)
https://doi.org/10.1103/PhysRevD.73.034503
(https://arxiv.org/abs/hep-lat/0509065)

"Electric Polarizability of Neutral Hadrons from Lattice QCD"
J. Christensen, W. Wilcox, F. Lee, and L. Zhou, Phys. Rev. D, **72**, 034503 (2005).
https://doi.org/10.1103/PhysRevD.72.034503
(https://arxiv.org/abs/hep-lat/0408024)

"An Improved Calculation of the mass for the Resonant Spring Pendulum"
J. Christensen, Am. J. Phys., Vol. 72, No. 6, June 2004, p.818-828.
https://aapt.scitation.org/doi/10.1119/1.1677269

"Renormalization of the Lattice HQET Isgur-Wise Function"
J. Christensen, T. Draper, and C. McNeile, Phys. Rev. D, **62**, (2000) 114006.
https://doi.org/10.1103/PhysRevD.62.114006
(https://arxiv.org/abs/hep-lat/9912046)

"A Calculation of the *B* Parameter in the Static Limit"
J. Christensen, T. Draper, and C. McNeile, Phys. Rev. D, **56**, (1997) 6993.
https://doi.org/10.1016/S0920-5632(96)00664-0
(https://arxiv.org/abs/hep-lat/9610026)

Conference Proceedings (1997-2003)

"Magnetic Polarizability of Hadrons from Lattice QCD"
L. Zhou, F. Lee, W. Wilcox, and J. Christensen, Nucl. Phys. B (Proc. Suppl.) **119** (2003) 272-274.
https://doi.org/10.1016/S0920-5632(03)01524-X
(https://arxiv.org/abs/hep-lat/0209128)

"Electric Polarizability of Hadrons"
J. Christensen, W. Wilcox, F. Lee, and L. Zhou, Nucl. Phys. B (Proc. Suppl.) **119** (2003) 269-271.
https://doi.org/10.1016/S0920-5632(03)01523-8
(https://arxiv.org/abs/hep-lat/0209043)

"Lattice HQET Calculation of the Isgur-Wise Function"
J. Christensen, T. Draper, and C. McNeile, Nucl. Phys. B (Proc. Suppl.) **63** (1998) 377.
https://doi.org/10.1016/S0920-5632(97)00775-5
(https://arxiv.org/abs/hep-lat/9710025)

"A Study of the Static-Light *B* Parameter"
J. Christensen, T. Draper, and C. McNeile, Nucl. Phys. B (Proc. Suppl.) **53** (1997) 378.
https://doi.org/10.1016/S0920-5632(96)00664-0
(https://arxiv.org/abs/hep-lat/9608005)

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[1] Many of the DOI require a subscription to access them. Where relevant, I have also included a link to arXive, which is a preprint archive that has the full pdf article.

[2] https://www.scopus.com/authid/detail.uri?authorId=55425907700

Self-Published (in progress)

Physics Textbook, “Connected Physics”, self-published, available online, but only two chapters are posted as of January 2018.

http://physics.thomasmore.edu/ConnectedPhysics/

Physics Labs (adapted to online format from paper, with original modifications), originally posted August 2017 and updated through May 2018.

http://physics.thomasmore.edu/Labs/TMC-lab-setup.html

http://physics.thomasmore.edu/Labs/121/

http://physics.thomasmore.edu/Labs/122/

http://physics.thomasmore.edu/Labs/220/

Unpublished Internet-Available Evidence of Conference Presentations

“Using PreTeXt to produce a better online text (or lab manual)”
J. Christensen, APS April Meeting 2018, abstract id.U10.007
http://meetings.aps.org/Meeting/APR18/Session/U10.7

Contributions to Conference Presentations

“Tests of Electric Polarizability on the Lattice”
V. Guerrero, W. Wilcox, J. Christensen, Presented at 26th International Symposium on Lattice Field Theory, Williamsburg, VA, USA, 14-19 Jul 2008
(https://arxiv.org/abs/0901.3296)