

# LAURA JOAN JACOBSEN

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**Office Address**

College of Graduate Studies and Research  
Radford University  
P. O. Box 6928  
Radford, VA 24142  
(540) 831-5470

**Home Address**

6773 Circle Dr  
Radford, VA 24141  
(540) 230-1848  
[ljacobsen@radford.edu](mailto:ljacobsen@radford.edu)

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## **EDUCATIONAL BACKGROUND**

- Ph.D., Curriculum and Instruction-Mathematics Education, Virginia Tech, Blacksburg, VA, 2006
- M.S., Mathematics, Virginia Tech, Blacksburg, VA, 1998
- B.S., Mathematics, Roanoke College, Salem, VA, 1997

## **LEADERSHIP AND INNOVATION**

### **Interim Dean, College of Graduate Studies and Research, (Feb 2017-Present)**

Responsible to develop, administer, and promote all aspects of the College of Graduate Studies and Research. In the area of graduate studies, overall responsibilities include graduate admissions and enrollment, graduate recruitment and marketing, assistantships and fellowships, student support services, working with graduate faculty, and chairing the Graduate Affairs Council. Research responsibilities include sponsored programs and grants management, research compliance, facilitating the generation of innovative research and scholarship (e.g., awarding faculty professional development leave, awarding Seed Grants for faculty research with external funding potential), and service as the Institutional Official (IO) for research. The IO bears ultimate responsibility that the institution complies with all requirements for research involving human and animal subjects. Responsibilities also include budget management (approx. \$4.3 million), personnel management, on-campus and off-campus outreach, advancement, and strategic planning on behalf of the College.

#### **Selected Activities and Innovations:**

- Leading planning and development of a strategic plan for the College, establishing goals for graduate enrollment, grant activity and awards, research support, and advancement.
- Co-chaired the Economic Development and Community Partnerships subgroup for Radford University's 2018-2023 Strategic Plan. Led development of a strategic plan proposal to promote economic development, continuing education, and outreach.
- Serving on Research Productivity Task Force, to improve the University's competitive research environment by increasing faculty engagement and operational efficiencies.
- Working to strengthen the culture of research and grant writing at Radford University, such as with a Grant Writing and Research Development Program beginning in fall 2017 and new Seed Grant proposal guidelines to increase the program's flexibility at supporting faculty in grant proposal development.
- Beginning work to build 3+2 or 3.5 + 1.5 accelerated degree options internally as well as with other institutions to encourage students to pursue graduate studies.
- Revising IRB forms, software, and processes to enhance efficiency and effectiveness.

**Associate Dean, College of Graduate Studies and Research, (Aug 2014 – Feb 2017)**  
**Interim Associate Dean, College of Graduate and Professional Studies (Jan - Aug 2014)**  
**Radford University [Note: The College changed its name in 2015]**

As Associate Dean, I participated significantly in strategic planning and budget development and implementation, including SCHEV 6-year plan development, and I managed contracts with multiple vendors. I chaired the Academic Course and Program Review Committee (ACPR), which reviews all course and program proposals, and I chaired the Graduate Policies and Procedures Committee, which strategically reviews and revises catalog language. I administered the allocation of approximately \$2.8 million of assistantship and fellowship funding to departments, and I evaluated requests for exceptions to graduate policies and procedures. I directly supervised the Assistantship and Fellowship Coordinator, the Graduate Student Support Specialist, the Coordinator of Graduate Recruitment, and four Graduate Assistants, and I represented the Graduate College in the absence of the Dean.

**Selected Activities and Innovations:**

- Chaired review of new degree proposals for the Masters in Data and Information Management, Masters in Biomedical and Forensic Sciences, and Doctor of Occupational Therapy, as well as new graduate certificate proposals for Bioethics, Gerontology, Professional Writing, and Psychiatric Mental Health Nurse Practitioner.
- Led recruitment efforts that grew graduate enrollments by approximately 10% from fall 2015 to fall 2016.
- Proposed and led significant cross-institutional improvements to graduate non-degree admissions and transfer policies and procedures, to expand the recruitment pool.
- Led collaborative redesign of graduate recruitment vision and practices to analyze graduate enrollment trends, improve international student recruitment, personalize RU's recruitment strategy and workflow based on best practices, utilize new CollegeNet Prospect Customer Relationship Management (CRM) capabilities, identify and reach new and expanded target markets for our programs, incorporate innovative social media approaches to marketing, and set ambitious but realistic enrollment targets.
- Led Request for Proposals (RFP) process for "Graduate Student Enrollment and Strategic Marketing Services," to help RU expand and diversify our graduate population.
- Proposed and managed a new, pilot Graduate Research Fellows Program including 10 students each spring since 2014, to support the culture of research at RU and to enhance research and scholarly productivity among graduate students and faculty.
- Proposed and implemented a new Graduate Professional Development Program, to enhance students' professional knowledge and skills and foster a sense of graduate community. Topics included job searching and resume writing; nurturing life balance; leadership development and ethics; managing social media image; effective academic writing; and best practices in teaching. Topics emerged from a needs assessment.
- Planned and implemented the *3 Minute Thesis (3MT)* Competition at Radford University, annually since 2014. The winner each year competes at the Conference of Southern Graduate Schools *3MT*. Primary goals were to elevate the visibility and create energy around graduate student research at RU while offering professional communication experience. Exit survey results demonstrated the program as a success.
- Proposed fundraising initiatives with the Graduate Dean and University Advancement.
- Revived the Graduate Student Council, which had been inactive for several years but is now again becoming active and growing to build community among graduate students. Serve as the Council's advisor.
- Significantly improved budget management for Graduate College assistantships and fellowships, also improving communications with the Budget Office.

- Significantly improved tone and expectations in the College to improve our service orientation and collaborative relationships, so that graduate students, faculty, and staff have a positive experience with our offices. Revised selected procedures accordingly.
- Together with our Dean, consulted with several education program coordinators, encouraging program offerings in high-quality synchronous online format, for strategic advantage and long-term sustainability. Three programs now plan to be fully available through distance education within 1 to 2 years.
- Created and chaired panel on International Student Perspectives at RU as part of Diversity Awareness and Celebration Week.
- Search Committee Chair, Assistant Provost for Academic Operations.
- Search Committee Member, Director of Career Services.
- Member of the RU Futures Group, charged by the Provost: *“to examine the near term and more distant challenges and opportunities before RU and to recommend one or more courses of action to more powerfully achieve RU's mission to teach students, make new knowledge, and apply knowledge to make the world a better place.”*
- Leadership Development: Participated in 2014 and 2015 Council of Graduate Schools' New Deans' Institute and Summer Workshop, Portland, OR.
- Leadership Development: Participated in Council of Graduate Schools Annual Meeting, December 2014 in Washington, DC and December 2015 in Seattle, WA.
- Leadership Development: Participated in Conference of Southern Graduate Schools Annual Meeting, Feb 2014 in San Antonio, TX and March 2015 in New Orleans, LA.

**Coordinator of M.S. in Mathematics Education Initiative,  
School of Teacher Education and Leadership, Radford University (2011 – 2013); AND  
Board Member (2011-Present) and Staff Member (2009-2011),  
Virginia Mathematics and Science Coalition**

As Coordinator, I was responsible for program proposal development, guiding curriculum planning and design, marketing, and recruitment, with a focus on high-needs school divisions and warned schools. I managed the program's annual budget of \$505,200, served as academic advisor for all enrolled students, organized course offerings, led National Council for Accreditation of Teacher Education (NCATE) and Southern Association of Colleges and Schools (SACS) accreditation evaluation and reporting for the mathematics education concentration, chaired over 1/3 of graduate capstone research projects, taught program courses using multiple distance education formats, supported website development, hired and supervised the administrative assistant, and hired and supervised over 30 part-time employees and contractors to contribute to program and related grant operations.

**Selected Activities and Innovations in These Roles:**

- Led conceptualization and development of this new program in 2008-2009, the first fully distance education degree program at Radford University. The M.S. in Education—Mathematics Education Program enrolled its first cohort in fall 2009 and has served diverse populations of teachers from across Virginia, including from rural Southwest Virginia, NOVA, Tidewater, Richmond, and Southside.
- Co-authored the proposal to the General Assembly that generated the program's annual Education and General (E&G) budget of \$505,200.
- As PI or co-PI, secured 6 consecutive grants through the Virginia Department of Education's Math and Science Partnership Grant (MSP) program to support the master's program, totaling over \$1.8 million. Additional grant details are below.
- Partnerships and outreach are of paramount importance to the program. We have established relationships with approximately 50 school division or private school partners committed to our mathematics education grant projects in the past 5 years.

- Serve as Co-Chair of the Virginia Math and Science Coalition's Governing Council for Statewide Masters Programs. RU has served as the lead institution for secondary mathematics statewide programs and NSF grant proposal development. University faculty and K-12 teachers and curriculum coordinators from across Virginia have collaborated on course design for nearly all current and planned program courses.
- Led conceptualization and development of the distance education mathematics education post-baccalaureate certificate program, which also began in 2009.
- Enrollments have exceeded expectations, with approximately 40 graduate students currently enrolled in the master's program or the certificate program.
- Our team built relationships and developed formal Memos of Understanding (MOUs) with Virginia Commonwealth University (VCU), MathScience Innovation Center (MSiC), and National Aeronautics and Space Administration (NASA) for program collaborations. Previously offered videoconferenced courses through the Roanoke Higher Education Center, Southwest Virginia Higher Education Center, New College Institute, and MSiC.
- Organized and hosted two statewide meetings at RU of K-12 educators and university mathematicians and mathematics educators, to build a collaborative statewide team.
- Organized distance education professional development for all faculty who teach in the program (Quality Matters, AdobeConnect, D2L, iPad, and the SmartPodium).

**Principal Investigator (PI) or Co-PI on 10 Externally-Funded Grants in Mathematics Education or STEM,  
Radford University (2008-Present)**

Principal Investigator (PI) or Co-PI on 10 externally funded grants in mathematics education or STEM since 2008. Grant awards total over \$2.8 million. Funding provided through the National Science Foundation (NSF; 2 awards), Virginia Department of Education (VDOE; 6 awards), and State Council for Higher Education in Virginia (SCHEV; 2 awards). My responsibilities as PI or Co-PI included grant proposal development and writing, project and budget planning and management, establishing and maintaining project partnerships, advising students, hiring and managing project personnel and contractors, conducting project research, authoring publications and presenting at conferences. Grant details provided in separate section.

**Selected Activities and Innovations as PI or Co-PI:**

- Co-founded the virtual, statewide and multi-institutional *Secondary Mathematics Professional Development Center*. Have served in roles as Director and Co-Director.
- In the five years of the VDOE-MSP grant program, 119 high school or middle school mathematics teachers in five cohorts received a total of \$583,422 in tuition awards, averaging \$4,903 per recipient.
- In the five years of the NSF-Scholarships in STEM Program, 71 STEM majors in four cohorts received a total of \$545,132 in scholarships, averaging \$7,678 per recipient.
- Collaborated with NASA to offer two-week, on-site *NASA Institute for High School Mathematics*, at NASA Langley in summer 2013 and 2014. Participating teachers toured NASA facilities, heard presentations from NASA scientists, and learned how modeling and simulation (MODSIM) are used in the workforce and to solve real life science and engineering-based problems. Teachers integrated MODSIM and associated tools into the high school mathematics curriculum.
- Collaborated with the College of William and Mary to offer a one-week, online *Performance-Based Assessment Institute* for high school mathematics teachers.
- In addition to above-referenced partnerships with VCU, MSiC, and NASA, built partnerships with the University of Virginia, George Mason University, Norfolk State University, Longwood University, and National Institute of Aerospace. Submitted as Principal Investigator a large-scale grant proposal for the *STEM Leadership in Secondary Mathematics Project*. Requested \$8 million through the NSF-MSP program in

2013 and \$7.5 million through NSF STEM-C in 2014. Although not funded, both were very well received, so the proposal will likely be revised and re-submitted again.

- Developed new *Mathematics for Social Analysis* undergraduate course for the NSF – Course, Curriculum, and Laboratory Improvement (CCLI) grant for the *Mathematics Education in the Public Interest* project on which I served as PI. Several hundred students in that course have completed over 10,000 hours of service learning with children in partnership with Beans and Rice, Inc., a non-profit serving predominantly low to moderate income families in Southwest Virginia.

**President, Faculty Senate;  
Faculty Representative, Board of Visitors (BOV)  
Radford University (May 2012 – Jan 2014)**

My responsibilities included chairing Senate and Faculty Senate Executive Council (FSEC) meetings; setting Senate and FSEC agendas; representing the faculty on the BOV, President's Cabinet and Provost's Academic Affairs Leadership Team (AALT); and setting Senate committee charges, among other responsibilities.

**Selected Activities and Innovations:**

- Led design of the university's salary model that was ultimately used for faculty salary adjustments in 2014. We surveyed the faculty and developed a model responsive to the results. I presented the model to the AALT and Faculty Senate.
- Organized and chaired two Accessibility Forums for students, faculty, staff, and administration designed to increase dialogue and provide a report on pressing accessibility needs across campus for individuals with disabilities.
- Helped significantly expand communications between the faculty, President, Provost, and Board of Visitors, serving as the first faculty member participating actively with the President's Cabinet and the AALT.
- Helped significantly improve relationships between the faculty and the BOV. The BOV adjusted its bylaws as a result of a proposal I authored related to faculty representation on the BOV. Further, the BOV began hosting annual faculty receptions, among other collaborative efforts. Delivered 12 formal presentations to the BOV while in service.
- Significantly improved relationships between the faculty and senior administration. I advocated for faculty representation on the President's Cabinet and Academic Affairs Leadership Team. I served as the first ex-officio faculty representative on both.
- Led RU's participation in the Harvard University Graduate School of Education's COACHE Survey of Faculty Satisfaction. Served as RU's liaison and led faculty team to respond to areas of concern expressed through COACHE.
- Proposed and implemented the first, annual Faculty Senate Summer Retreat, to plan the Senate's agenda for the following academic year and discuss key objectives
- Authored or co-authored approximately 10 motions, related to faculty representation on the Board of Visitors; support for the Climate Action Plan; improving Core Curriculum delivery; establishing a task force to re-design the Honors Academy and then serving on the task force that proposed the new model; establishing a Child Care Task Force whose work ultimately led to formation of a new non-profit on which I serve as a Board member (Radford Child Development, Inc.) and a planned new child development center in 2015; eliminating a rule that limited faculty salaries to 133% of the 9-month base pay; revising the Faculty Handbook; and setting goals for faculty salary and staffing levels.
- Served on the Academic Program Review Committee
- Served on Faculty Senate since 2009.
- Chaired the Faculty Senate Campus Environment Committee from 2010-2012.

**Professor, Mathematics Education, School of Teacher Education and Leadership (2015-Present), Radford University; Associate Professor, School of Teacher Education and Leadership (2011-2015); Assistant Professor, Department of Mathematics and Statistics (2005-2011)**

Selected Activities and Innovations, Additional to Those Above:

- Member of the Personnel Committee, School of Teacher Education and Leadership (STEL) (2011-Present). Member of Full Professor sub-committee (2015-Present).
- Attended 2011 SACS Commission on Colleges Summer Institute on Quality Enhancement and Accreditation in Fort Worth, TX.
- Was on the team in 2011 that proposed the topic ultimately approved for RU's current Quality Enhancement Plan (QEP), the Scholar-Citizen Initiative. Served on the QEP Writing Team, Launch Team, and Implementation Team (2011-2013).
- Founding Advisor for the College of Science and Technology's STEM Club (2009-2013).
  - Invited and brought many guest speakers to campus, such as speakers from NASA, UVA, Harvey Mudd, and Ohio Valley Archaeology.
  - Planned and led student bus tours to the Smithsonian (3 visits) and North Carolina Zoological Park (1 visit).
- Member of administrative search committees for Director of International Education (2014), University Registrar (2010), Core Curriculum Director (2012), Assistant Vice Provost for Assessment (2012), and numerous departmental positions.
- Lead editor on a book in mathematics teacher education, with top scholars in math education included as authors. This included scholars at universities in England, Australia, Brazil, and Denmark, as well as from US universities: Michigan State University, University of Illinois at Chicago, University of Arizona, University of Maryland, University of Montana, and University of Michigan, among several others (2012).
- Proposed and created new 3-2 dual degree program between RU and VT, approved in 2007. Led development of Memo of Understanding (MOU) between RU and VT.
- Led effort to get mathematics into Summer Bridge, which began as an IT camp and transitioned to focus on females in STEM. Taught program workshops (2006-2008).
- Served as RU liaison for STEM Day Conference for 6<sup>th</sup> grade girls, hosted through the Southwest Virginia Higher Education Center (2006-2011).
- Mentored 71 STEM scholarship students through the NSF-SSTEM grant project and co-developed performance plans with students at risk (2009-2013).
- Served on the STEL Steering Committee (2012-Jan 2014).
- Chaired the Recruitment and Retention Committee of the Department of Mathematics and Statistics (fall 2006- spring 2008; fall 2010-spring 2011). The number of majors increased from 54 to 72 students from fall 2006 to fall 2007, experienced a minor decline, and then increased from 65 to 75 students from fall 2010 to fall 2011.

#### **EMPLOYMENT**

- Interim Dean, Graduate College, Radford University, February 2017-Present
- Associate Dean, Graduate College, Radford University, August 2014-Present
- Interim Associate Dean, Graduate College, Radford University, January 2014 – August 2014
- Associate Professor, School of Teacher Education and Leadership, Radford University, 2011-Present
- Director, M.S. in Mathematics Education Initiative, School of Teacher Education and Leadership, Radford University, 2011-2013
- Assistant Professor, Department of Mathematics and Statistics, Radford University, 2005-2011
- Graduate Research Assistant, Department of Mathematics, Virginia Tech, 2002-2005

- Instructor, Department of Mathematics, Virginia Tech, 1999-2002

### **EXTERNAL GRANT DETAILS**

- ***Secondary Mathematics Professional Development Center, Mar 2015 – Sept 2018.*** **Corey, D., Galeshi, R., Manizade, A., Jacobsen, L.J., & Younes, R.** VDOE-MSP Grant. Grant supports high school teachers to improve their mathematics content, pedagogy, and assessment related to teaching algebra and geometry, focusing on supporting academically warned schools. Grant includes subawards to VCU and Longwood University and collaborations with NASA Langley for a two-week on-site teacher institute (\$728,598)
- ***Secondary Mathematics Professional Development Center, Mar 2014 – Sept 2015.*** **Jacobsen, L.J., & Manizade, A.** VDOE-MSP Grant. Grant supports high school teachers to improve their mathematics content, pedagogy, and assessment related to teaching algebra and geometry utilizing STEM applications and incorporating performance-based assessments. Grant includes a subaward to VCU and collaborations with NASA Langley for a two-week on-site teacher institute (\$230,000)
- ***Secondary Mathematics Professional Development Center, Mar 2013 – Jun 2014.*** **Jacobsen, L.J., & Manizade, A.** VDOE-MSP Grant. Grant supports high school teachers to improve their mathematics content, pedagogy, and assessment related to teaching algebra and geometry utilizing STEM applications and incorporating performance-based assessments. Grant includes a subaward to VCU and the College of William and Mary as well as collaborations with NASA Langley for a two-week on-site teacher institute (\$250,000)
- ***Secondary Mathematics Professional Development Center, Mar 2012-Jun 2013.*** **Manizade, A., & Jacobsen, L. J.** VDOE-MSP Grant. Grant supports high school teachers to improve their mathematics content, pedagogy, and assessment related to teaching Algebra I, Algebra II, AFDA, Geometry, and the Mathematics Capstone Course. Grant includes a subaward to VCU for collaborations related to offering funding to support teachers in the Richmond area. (\$221,953)
- ***Supporting Mathematics, Science, and Literacy in Southside Virginia, July 2011-Sept 2012.*** **Jones, F., Jacobsen, L. J., & Jaronski, W.** State Council of Higher Education for Virginia (SCHEV), No Child Left Behind (NCLB), Title II, Part A, Grant. Grant supports professional development in mathematics, science, and literacy for elementary and middle school teachers in high-needs school divisions. (\$138,243)
- ***Southwest and Southside Virginia Secondary Mathematics Professional Development Center, Mar 2011 – Jun 2012.*** **Manizade, A., & Jacobsen, L. J.** VDOE-MSP Grant. Grant supports a 9 credit-hour program of professional development courses for high school mathematics teachers, including but not limited to geometry, algebra and modeling topics. (\$200,000)
- ***Southwest and Southside Virginia Secondary Mathematics Professional Development Center, Jan 2010 – Sept 2011.*** **Manizade, A., & Jacobsen, L. J.** VDOE-MSP Grant. Grant supports a 10 credit-hour program of professional development courses for high school mathematics teachers, focused on the algebra and statistics content knowledge needed for teaching. (\$207,242)
- ***Bridges and Pipelines to Success and Leadership in STEM, Jan 2009 – Jun 2013.*** **Barland, I., Jacobsen, L. J., Mistele, J., Uppuluri, P., & Rogers, J. O.** NSF – Scholarships in STEM Grant. Grant supports recruitment and retention of under-represented populations in STEM undergraduate programs. Scholarship recipients will have an edge over typical college graduates by participating in the Radford University Student Leadership Program. Award number DUE-0849642 (\$597,427)

- **Mathematics Education in the Public Interest, Jan 2009 – Dec 2011. Jacobsen, L. J., & Mistele, J.** NSF– Course, Curriculum, and Laboratory Improvement Grant. Grant supports curriculum and course development and research centered on equity and social justice in mathematics education and integrating teaching with scholarship. Award number DUE-0837467 (\$119,667)
  - **Pittsylvania/Danville – Radford Initiative for Science and Mathematics (PRISM), July 2008 – Sept 2009. Jaronski, W., Spielman\*, L. J., & Jones, F.** State Council of Higher Education for Virginia (SCHEV), No Child Left Behind (NCLB), Title II, Part A, Grant. Grant supports professional development in mathematics and science for elementary and middle school teachers in high-needs school divisions. (\$130,000)
- \* Formerly Laura J. Spielman

### PEER-REVIEWED PUBLICATIONS

- Manizade, A. G., Jacobsen, L. (2013). Providing high-quality professional development for all. In Martinez, M. V. & Castro Superfine, A. C (Eds.) *Proceedings of the 35<sup>th</sup> Conference of the International Group for the Psychology of Mathematics Education of the North American Chapter*, 825-828. Chicago, USA: PMENA.
- Manizade, A. G., Jacobsen, L. (2013). Access to professional development opportunities for mathematics teachers in rural USA. In Lindmeier, A.M. & Heinze, A. (Eds.) *Proceedings of the 37<sup>th</sup> Conference of the International Group for the Psychology of Mathematics Education*, 5, 243. Keil, Germany: PME.
- Jacobsen, L. J. (2012). Preface to “Equity in mathematics education: Unions and intersections of feminist and social justice literature.” In H. Forgasz & F. Rivera (Eds.), *Advances in Mathematics Education: Equity and Diversity in Mathematics Education*. New York: Springer. Along with this preface, my original ZDM article from 2008 was reprinted.
- Jacobsen, L. J. (2010). Embedding mathematics in the elementary teacher education curriculum network. *Philosophy of Mathematics Education Journal*, 25. Retrieved from <http://people.exeter.ac.uk/PErnest/> [Invited contribution to special issue on Critical Mathematics Education].
- Jacobsen, L. J., & Mistele, J. (2010). *A balancing act: Mathematics teacher education in the public interest*. In A. Manouchehri & D. Owens (Eds.), *Proceedings of the 32<sup>nd</sup> Annual Meeting of the North American Chapter for the International Group for the Psychology of Mathematics Education (PME-NA)*, Columbus, OH.
- Jacobsen, L. J., & Mistele, J. M. (2010). Please don't do “Connect the dots”: Mathematics lessons with social issues. *Science Education and Civic Engagement: An International Journal*, 2(2), 9-15.
- Spielman, L. J. (2009). Mathematics education in the public interest: Preservice teachers' engagement with and reframing of mathematics. In S. L. Swars, D. W. Stinson, & S. Lemons-Smith (Eds.), *Proceedings of the 31<sup>st</sup> Annual Meeting of the North American Chapter for the International Group for the Psychology of Mathematics Education (PME-NA)*, Atlanta, GA.
- Mistele, J., & Spielman, L. J. (2009). Engaging preservice teachers in mathematics: Social analysis in the mathematics classroom. *Democracy and Education*, 18(3), 64-67.
- Mistele, J., & Spielman, L. J. (2009). The impact of “Math for Social Analysis” on math anxiety in elementary preservice teachers. *Academic Exchange Quarterly*, 12(4), 93-97. (Paper also appeared in S. L. Swars, D. W. Stinson, & S. Lemons-Smith (Eds.) (2009, September), *Proceedings of the 31<sup>st</sup> Annual Meeting of the North American Chapter for the International Group for the Psychology of Mathematics Education (PME-NA)*, Atlanta, GA.)
- Spielman, L. J. (2008). Equity in mathematics education: Unions and intersections of feminist and social justice literature. *ZDM – The International Journal on Mathematics Education*, 40(5), 647-657.



- Spielman, L. J. (2007). A case in mathematics education using skits to connect preservice teachers' language and practices. *Education*, 128(1), 125-137.
- Spielman, L. J., & Lloyd, G. M. (2005). Contextualizing 'mathematics' in elementary teacher education. In G. M. Lloyd, M. Wilson, J. L. M. Wilkins, & S. L. Behm (Eds.), *Proceedings of the 27<sup>th</sup> Annual Meeting of PME-NA*, Roanoke, VA.
- Behm, S. L., Lloyd, G. M., Spielman, L. J. (2004). Curriculum negotiation and the implementation of conceptually different materials. In D. E. McDougall & J. A. Ross (Eds.), *Proceedings of the 26th Annual Meeting of PME-NA*. (vol. 3, pp. 1300-1301). Toronto: OISE/UT.
- Spielman, L. J., & Lloyd, G. (2004). The impact of enacted mathematics curriculum models on preservice elementary teachers' course perceptions and beliefs. *School Science and Mathematics*, 104(1), 1-13.
- Wilson, M. R., & Spielman, L. J. (2003, July). *Teachers' conceptions of graph theory and functions: Implications for teaching*. In N. Pateman, B. Dougherty, & J. Zilliox (Eds.), *Proceedings of the 2003 Joint Meeting of PME and PMENA* (vol. 1, p. 335). Honolulu, HI.

### **PUBLISHED BOOK**

- Jacobsen, L. J., Mistele, J., & Sriraman, B. (Eds.). (2012). *Mathematics teacher education in the public interest: Equity and social justice*. Charlotte, NC: Information Age.
  - Includes prominent mathematics education contributors such as Helen Forgasz, Danny Martin, Ole Skovsmose, and Richard Kitchen. Preface by Eric Gutstein.

### **INVITED BOOK CHAPTERS**

- Mistele, J., & Jacobsen, L. (2016). Students' search for meaning in *Mathematics for Social Analysis*. In D. White, S. Crespo, & M. Civil (Eds.), *Cases for teacher educators: Conversations about inequities in mathematics classrooms*. Raleigh, NC: Association of Mathematics Teacher Educators and Information Age Publishing.
- Jacobsen, L. J., & Mistele, J. (2011). Mathematics education: What is the point? In B. Atweh, M. Graven, W. Secada, & P. Valero (Eds.), *Mapping equity and quality in mathematics education*. New York: Springer.
- Spielman, L. J., & Mistele, J. (2010). Service learning for "Mathematics Education in the Public Interest." In M. A. Cooksey & K. T. Olivares (Eds.), *Quick hits for service-learning: Successful strategies from award-winning educators*. Bloomington, IN: Indiana University Press.

### **NATIONAL AND INTERNATIONAL REFEREED PRESENTATIONS**

**Papers published in conference proceedings appear on this vita under "Publications" and are not duplicated in the list of presentations.**

- Corey, D., Jacobsen, L. Younes, R., Galeshi, R., Dove, A. (2016, March). *Best practices in mathematics education: Course and program level*. Presentation accepted for annual conference of Society for Information Technology and Teacher Education, Savannah, GA.
- Manizade A.G., Martinovic, D., & Jacobsen, L. (2014, November). *Impacting high school mathematics teachers' knowledge and practice*. Southern regional meeting of the National Council of Teachers of Mathematics, Richmond, VA.
- Jacobsen, L., & Manizade A.G. (2014, September). *Secondary Mathematics Professional Development Center*, United States Department of Education, Math and Science Partnerships Program Annual Conference, Washington, DC.
- Manizade, A. G., Jacobsen, L. (2013, November). *Providing high-quality professional development for all*. 35<sup>th</sup> Annual Conference of the International Group for the

Psychology of Mathematics Education—North American Chapter, Chicago, USA: PMENA.

- Jacobsen, L., & Manizade A.G. (2013, September). *Secondary Mathematics Professional Development Center*, United States Department of Education, Math and Science Partnerships Program Annual Conference, Washington, DC.
- Manizade, A. G., Jacobsen, L. (2013, July). *Access to professional development opportunities for mathematics teachers in rural USA*. 37<sup>th</sup> Conference of the International Group for the Psychology of Mathematics Education, Keil, Germany: PME.
- Manizade, A. G., & Jacobsen, L. J. (2012, January). *Using on-line reflective journals as a way to observe changes in teachers' professional situated mathematical knowledge*. Department of Education's Math and Science Partnership MSP Program 2012 Regional Conference, New Orleans, LA.
- Jacobsen, L. J., & Rogers, J. O. (2011, February). *Approaches to enhancing student recruitment and retention in STEM majors: The NSF-SSTEM scholarship program at Radford University*. Presentation at American Association for the Advancement of Science, Washington, DC.
- Rogers, J. O., & Jacobsen, L. J. (2011, February). *Summer Bridge Program educates high school women about science, technology, engineering and mathematics college majors and careers*. Presentation at American Association for the Advancement of Science, Washington, DC.
- Jacobsen, L. J. (2011, January). *Mathematics education in the public interest*. Presentation at a Course, Curriculum, and Laboratory Improvement Conference (associated with National Science Foundation grant), Washington, DC.
- Menéndez, J. M., & Jacobsen, L. J. (2011, January). *Development of the appreciation of mathematics via teaching mathematics for the public interest*. Presentation at Joint Mathematics Meetings of the American Mathematical Society and Mathematical Association of America, New Orleans, LA.
- Jacobsen, L. J., & Mistele, J. (2010, September). *A balancing act: Mathematics teacher education in the public interest*. Presentation at 32<sup>nd</sup> Annual Conference of the International Group for the Psychology of Mathematics Education—North American Chapter, Columbus, OH.
- Jacobsen, L. J., & Mistele, J. (2010, April). *Do not do "Connect the Dots": Mathematics lessons with social issues*. Presentation at the annual meeting of the American Educational Research Association (AERA), Denver, CO.
- Spielman, L. J. (2009, September). *Mathematics Education in the Public Interest: Preservice teachers' engagement with and reframing of mathematics*. Presentation at annual meeting of PME-NA, Atlanta, GA.
- Mistele, J., & Spielman, L. J. (2009, September). *The impact of "Math for Social Analysis" on mathematics anxiety in elementary preservice teachers*. Presentation at annual meeting of PME-NA, Atlanta, GA.
- Spielman, L. J., & Mistele, J. (2009, June). *Supporting equity and social justice through Mathematics Education in the Public Interest*. Presentation at Developing a Good Heart in STEM: Summit on Incorporating Social Justice and Service-Learning into the STEM Curriculum. Ithaca, NY.
- Dietrich, C. C., Spielman, L. J., Dahl Soendergaard, B., Corwin, S., Dietrich, C. B., & Rosenzweig, M., et al. (2008, March). *Universities as catalysts for community building among informal STEM educators: The story of POISED*. Presentation at the annual meeting of the AERA, New York, NY. (STEM is an acronym for "Science, Technology, Engineering, and Mathematics; POISED is an acronym for "Partners for Outreach in Informal STEM Education")
- Spielman, L. J., & Mistele, J. (2008, January). *Introducing the "Mathematics Education in the Public Interest" project*. Presentation at annual meeting of the Association of

Mathematics Teacher Educators, Tulsa, OK.

- Spielman, L. J. (2006, November). "*Context-independent" philosophies in mathematics teacher education: The sorting of schools and the accomplishment of a program's irrelevance to teaching.* Presentation at annual meeting of the American Anthropological Association, member of panel on Culturally Relevant Mathematics and Science, San José, CA.
- Spielman, L. J., & Lloyd, G. M. (2005, September). Contextualizing 'mathematics' in elementary teacher education. 27<sup>th</sup> Annual Meeting of PME-NA, Roanoke, VA.
- Spielman, L. J. (2005, April). *Investigating preservice elementary teachers' views of practice through the use of skits.* Presentation at annual meeting of the AERA, Montréal, Canada.
- Spielman, L. J. (2004, April). *Preservice teachers' observations of children's mathematical thinking.* Presentation at the Research Presession of the annual meeting of the National Council of Teachers of Mathematics (NCTM), Philadelphia, PA.
- Spielman, L. J., Behm, S., & Lloyd, G. M. (2003, October). *Learning outcomes of alternative enacted curriculum models in a mathematics course for preservice elementary teachers.* Presentation at the annual meeting of the American Association for Teaching and Curriculum (AATC), Baltimore, MD.
- Spielman, L. J., & Gao, H. (2003, October). *Understanding relationships between professionalism and teaching practice.* Presentation at the annual meeting of the AATC, Baltimore, MD.
- Lloyd, G., Behm, S., & Spielman, L. J. (2003, January). *Learning with and about curriculum materials: How preservice elementary teachers interpret and use mathematics textbooks.* Presentation at the annual meeting of the Association of Mathematics Teacher Educators, Atlanta, GA.
- Wilson, M. R., & Spielman, L. J. (2002, October). *The importance of flexible mathematical and pedagogical conceptions for secondary teachers.* Presentation at the annual meeting of PME-NA, Athens, GA.

#### **INVITED PRESENTATION**

- Spielman, L. J., & Mistele, J. (2009, September). *Mathematics education in the public interest: Theory and practice.* Invited colloquium talk at Michigan State University.

#### **INTERNAL GRANTS**

- *Mathematics Education in the Public Interest, Phase II*, 2009. Spielman, L. J. (\$10,105)
- *Mathematics Education in the Public Interest*, 2008. Spielman, L. J., & Mistele, J. (\$8,115)
- *Graduate Recruitment Grant Award for Education—Mathematics Concentration*. 2008-2009. Morrison, K., & Spielman, L. J. (\$1,000)
- *Mathematics Education in the Public Interest*, 2007-2008. Spielman, L. J. (\$3,360)
- *Partners for Outreach in Informal STEM Education*, 2007. Spielman, L. J. (\$2,799).
- *Preservice Teachers' Characterizations of the Relationships Between Teacher Education Program Components*. 2004-2005. Spielman, L. J. Virginia Tech. (\$2,500).
- *Preservice Teachers' Characterizations of the Relationships Between Teacher Education Program Components*. 2004-2005. Spielman, L. J. Virginia Tech. (\$500)

#### **DISSERTATION RESEARCH**

- *Preservice Teachers' Characterizations of the Relationships Between Teacher Education Program Components: Program Meanings and Relevance and Socio-Political School Geographies*

Committee Chair: Dr. Gwendolyn Lloyd

Committee: Dr. Susan Magliaro, Dr. Jan Nespor, Dr. Jay Wilkins, and Dr. Skip Wilson

### **LOCAL/STATE PRESENTATIONS AND WORKSHOPS**

- Jacobsen, L. (2014, October). International Student Perspectives at RU. Chaired a panel and invited international students to participate. Diversity Awareness and Celebration Week, Radford University.
- Jacobsen, L. (2012 – 2014). Twelve formal presentations to the Radford University Board of Visitors, in service as faculty representative to the Board, Radford, VA.
- Jacobsen, L. (2012, October). *Secondary mathematics leadership in Virginia*. Presentation at fall meeting of the Blue Ridge Council of Teachers of Mathematics, Roanoke, VA.
- Manizade, A., Brady, S., Jacobsen, L., Dickerson, P., & Jaynes, L. (2012, March). *Radford University Mathematics and Science Partnership Project*. Virginia Council of Teachers of Mathematics, Roanoke, VA.
- Manizade, A., & Jacobsen, L. (2012, March). *Secondary mathematics professional development center*. Presentation at spring meeting of the Virginia Council for Mathematics Supervision, Richmond, VA.
- Jacobsen, L. (2011, November). *Map coloring*. Presentations at STEM day conference for sixth-grade girls, Southwest Virginia Higher Education Center, Abingdon, VA.
- Manizade, A., & Jacobsen, L. (2011, March). *Teaching algebra, functions, and data analysis (AFDA) through hands-on experiences*. Presentation at annual meeting of the Virginia Council of Teachers of Mathematics, Richmond, VA.
- Jacobsen, L. (2010, November). *Map coloring*. Presentations at STEM day conference for sixth-grade girls, Southwest Virginia Higher Education Center, Abingdon, VA.
- Spielman, L. J. (2010, March). *Math, maps and more*. Interest Project Counselor for Science Exploration Day / Merit Badge College with Girl Scouts and Boy Scouts, Radford University, Radford, VA.
- Jacobsen, L. (2009, November). *Map coloring*. Presentations at STEM day conference for sixth-grade girls, Southwest Virginia Higher Education Center, Abingdon, VA.
- Burriss, T., McLaughlin, D., Seyfrit, C., Spielman, L., Bollar, W., & Werth, J. (2009, April). *Responding to the challenges posed by surface mining: Research projects, classroom presentations, and artistic expressions*. Presentation for the Faculty Lecture Series, Radford University, Radford, VA.
- Spielman, L. J. (2009, March). *Including relevant local and global problems in the math classroom*. Presentation in the Research Session at the annual meeting of the Virginia Council of Teachers of Mathematics, Virginia Beach, VA.
- Spielman, L. J. (2009, March). *Getting students engaged with mathematics in the public interest*. Presentation at annual meeting of the Virginia Council of Teachers of Mathematics, Virginia Beach, VA.
- Spielman, L. J. (2008, November). *Using math to connect people and places*. Presentation at STEM day conference for sixth-grade girls, Southwest Virginia Higher Education Center, Abingdon, VA.
- Spielman, L. J. (2007, November). *Math and our world*. Presentation at STEM day conference for sixth-grade girls, Southwest Virginia Higher Education Center, Abingdon, VA.
- Spielman, L. J. (2007, April). *Math education and social justice: Using math to change the world*. Presentation at the Mathematics, Computer Science, and Physics Conversation Series, Roanoke College, Salem, VA.
- Spielman, L. J. (2007, March). *Elementary and middle grades mathematics for social analysis*. Presentation at the annual meeting of the Virginia Council of Teachers of Mathematics, Virginia Beach, VA.

- Case, C., & Spielman, L. J. (2006, November). *Using fraction circles to create art and a mathematical masterpiece*. Presentation at STEM day conference for sixth-grade girls, Southwest Virginia Higher Education Center, Abingdon, VA.
- Spielman, L. J. (2006, March). *The politics of mathematics curriculum and standards: Questions for equity and social justice*. Presentation at annual meeting of the Virginia Council of Teachers of Mathematics, Blacksburg, VA.
- Spielman, L. J. (2005, March). *Mapping knowledge in elementary mathematics teacher education coursework and fieldwork*. Presentation at Annual Research Symposium and Exposition, Virginia Tech, Graduate Student Assembly, Blacksburg, VA.
- Lloyd, G. M., Behm, S. L., Rivera-Marrero, O., & Spielman, L. J. (2005, March). *Research in mathematics education*. Presentation at the Graduate Issues Seminar in Mathematics, Virginia Tech, Department of Mathematics, Blacksburg, VA.
- Spielman, L. J. (2004, November). *Defining elementary teacher education curriculum networks and tracing elementary mathematics teacher education through these networks*. Presentation at Educational Studies Seminar, Virginia Tech, Department of Teaching and Learning, Blacksburg, VA.
- Spielman, L. J. (2003, April). *The mathematical development of prospective elementary teachers*. Presentation at MD/DC/VA meeting of the MAA, Norfolk, VA.
- Spielman, L. J. (2001, November). *What can I do with a major in mathematics?* Alumni Panelist, Math and Physics Career Program, Roanoke College, Salem, VA.
- Spielman, L. J. (2001, August). *Lesson planning*. Workshop for Virginia Tech Mathematics Department Graduate Teaching Assistants, Blacksburg, VA.
- Spielman, L. J. (2001, August). *An introduction to Mathematica for calculus*. Workshop for Virginia Tech Mathematics Emporium Workers, Blacksburg, VA.
- Spielman, L. J. (2000, November). *Virginia Tech Mathematics Emporium orientation and Excel introduction*. Workshop for Montgomery County Public Schools Math Teacher Enrichment Program, Blacksburg, VA.
- Spielman, L. J. (2000, November). *Computer laboratory based calculus using Excel and Mathematica*. Presentation at MD/DC/VA meeting of the MAA, Washington, DC.
- Spielman, L. J. (2000, October). *Technology and mathematics: The Virginia Tech model*. Presentation at meeting of Blue Ridge Council of Teachers of Mathematics, Salem, VA.
- Jacobsen, L. (1997, April). *Fuzzy regression and the Baseball Hall of Fame*. Presentation at MD/DC/VA meeting of the MAA, Williamsburg, VA.

### **HONORS AND AWARDS**

- Scholar of the Month, Sponsored Programs and Grants Management, Radford University, December 2011
- Radford University's Nominee for the Outstanding Faculty Award (rising star category), State Council of Higher Education for Virginia, 2011
- Recipient of the Artis Outstanding Faculty Award for Scholarship and Service, College of Science and Technology, Radford University, 2010
- Inducted into One Million Dollar Circle for grant awards, Radford University, August 2010
- Nomination for Donald N. Dedmon Distinguished Teaching Professor Award, Radford University, 2010
- Nomination for Distinguished Creative Scholar Award, Radford University, 2009, 2010
- Nomination for the Outstanding Faculty Award, College of Science and Technology, Radford University, 2009
- Phi Kappa Phi (National All-Discipline Honor Society), Virginia Tech, 2002-2006
- Graduated magna cum laude with honors in mathematics, Roanoke College, May 1997
- First place for student talks at the MD/DC/VA Regional Meeting of the Mathematical Association of America (MAA), April 1997

- Julia McBrierty Chalfant Memorial Award for Excellence in Mathematics, Roanoke College, 1997
- Honors Program, Roanoke College, 1993-1997
- Summer Scholar Research, Roanoke College, 1996
- Pi Mu Epsilon (National Mathematics Honor Society)
  - President of Virginia Delta Chapter, Roanoke College, 1995-1997
  - Member of Virginia Beta Chapter, Virginia Tech, 1998

### **SELECTED ADDITIONAL SERVICE**

- Member, Academic Program Review Committee, 2012-2014
- Board Member, Virginia Mathematics and Science Coalition, 2011-Present
- Board Member, Radford Child Development, Inc., 2013-Present
- Board Member, Beans and Rice, Inc., 2013-Present
- Chair of several successful tenure-track faculty searches, 2011-2014
- Steering Committee, School of Teacher Education and Leadership, 2012-2014
- Steering Committee, *STEM* day conference; over 600 sixth grade girls in Southwest Virginia attend annually; Southwest Virginia Higher Education Center, Abingdon, VA, 2006-2012
- Appalachian Arts and Studies in the Schools (AASIS) Team Member, 2008-2011
- Department of Mathematics and Statistics Recruitment and Retention Committee, Chair, 2006-2008 and 2010-2011
- Internal Governance Reform Task Force, 2012-2013
- Editorial Panel, 7<sup>th</sup> Association for Mathematics Teacher Education (AMTE) Monograph, 2009
- Reviewer, Virginia's K-12 Mathematics Standards of Learning, one-day meeting, 2008
- Reviewer, *ZDM - The International Journal on Mathematics Education*, 2008-Present
- Reviewer, *Journal for Research in Mathematics Education*, 2006-Present
- Reviewer, *Journal of Mathematical Thinking and Learning*, 2006-Present
- Reviewer, *Journal of Urban Mathematics Education*, 2010-Present
- Program Planning Committee, 27<sup>th</sup> meeting of the International Group for the *Psychology of Mathematics Education*, Blacksburg, VA, 2005
- Reviewer, *Teachers' use of mathematics curriculum materials: Research perspectives on relationships between teachers and curriculum*, Remillard, Herbel-Eisenmann, & Lloyd (Eds.), 2005
- Webmaster, MD/DC/VA Section of the MAA, 2002-2005
- Member, National Committee on Web Policy and Procedures, Mathematical Association of America (MAA), 2004-2006
- Program Planning Co-Chair, MD/DC/VA meeting of the MAA, Virginia Tech, 2001

### **CURRICULUM DEVELOPMENT: NEW COURSES PROPOSED**

- Issues of Equity and Diversity in Mathematics Education (Math/Educ 620), Spring 2008
- Graduate Seminar: Theory and Practice in Mathematics Education (Math/Educ 650), Spring 2008
- Professional Seminar: Research in Mathematics Education (Math/Educ 691), Spring 2008
- Elementary and Middle Grades Mathematics for Social Analysis (Math 312), Fall 2006
- Introduction to Geometry (Math 135), Fall 2005

### **COURSES TAUGHT AT RADFORD UNIVERSITY, UNLESS NOTED OTHERWISE**

- Teaching and Learning Elementary Mathematics (Educ 410), 2012
- Educational Foundations (Edef 607), 2012

- Educational Research (Edef 606), 2012
- Professional Seminar: Research in Mathematics Education (Math/Educ 691), 2011
- Graduate Seminar: Theory and Practice in Mathematics Education (Math/Educ 650), 2011-2013, 2015
- Issues of Equity and Diversity in Mathematics Education (Math/Educ 620), 2010-2011
- Mathematics and Social Justice—Practice, 2009 (Educ 698; Directed study)
- Mathematics and Social Justice—Theory, 2008 (Math 698; Directed study)
- Special Methods: Secondary Mathematics Education (Math 325), 2008-2009
- Elementary and Middle Grades Mathematics for Social Analysis (Math 312), 2007-2011
- Special Topics in Math Education (Math 681)
  - Topic: Elementary and Middle School Mathematics, 2007
  - Topic: Elementary and Middle School Geometry, 2008
  - Topic: Elementary and Middle School Math Literacy, 2008
- Introduction to Number Systems (Math 315), 2005-2007
- Mathematics and Human Development I (Math 111), 2005, 2007
- Mathematics and Human Development II (Math 112), 2006, 2008
- Number and Computing for Teachers (Math 1614), Virginia Tech, 2003
- Geometry and Computing for Teachers (Math 1624), Virginia Tech, 2003
- Elementary Calculus I with Matrices (Math 1525), Virginia Tech, 2002
- Multivariable Calculus (Math 2224), Virginia Tech, 2002
- College Algebra and Trigonometry (Math 1024), Virginia Tech, 2000
- Calculus with Trigonometry I (Math 1016), Virginia Tech, 1999-2001
- Calculus with Trigonometry II (Math 2015), Virginia Tech, 1998-2001
- Calculus I, Virginia Tech (Math 1205), 2001
- Differential Equations (Math 2214), Virginia Tech, 2000