

## **CURRICULUM VITA**

Beth Ann Basista  
Departments of Physics and Teacher Education  
259 Fawcett Hall  
Wright State University  
Dayton, Ohio 45435

Date of appointment to present rank of Associate Professor at Wright State University:  
September 1, 1995

### **EDUCATION**

<u>Institution</u>	<u>Concentration</u>	<u>Degree/Date</u>
University of Akron	Natural Sciences	B.S., 1985
University of Cincinnati	Physics	M.S., 1990
University of Cincinnati	Physics	Ph.D., 1995

### **ACADEMIC EXPERIENCE**

<u>Institution</u>	<u>Position</u>	<u>Dates</u>
Wright State University	Associate Professor	2001-present
Wright State University	Assistant Professor	1995-2001
The Ohio State University 1995	Postdoctoral Researcher	1994-
University of Cincinnati 1994	Instructor	1992-
University of Cincinnati 1994	Graduate Teaching Assistant	1989-
University of Cincinnati 1993	Graduate Research Assistant	1991-

### **OTHER PROFESSIONAL EXPERIENCE**

<u>Institution</u>	<u>Position</u>	<u>Dates</u>
Project DISCOVERY Science Initiative	Instructor of Higher Education	1995
Dayton Public Schools present	Science Education Consultant	1997-
Huber Heights City Schools present	Science Education Consultant	1999-
Ohio Board of Regents present	Teaching Fellow	2002-
Ohio Teacher Quality Partnership	Content Specialist	2004
Ohio Department of Education	Consultant	2004-05

### **PROFESSIONAL MEMBERSHIPS**

<u>Association</u>	<u>Status</u>	<u>Dates</u>
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National Science Teacher Association present	Member	1996-
Science Education Council of Ohio Association for the Education of Teachers in Science present	Member	1997-present
American Association of University Professors present	Member	1997-
American Physical Society present	Member	1990-

### **AWARDS AND DISTINCTIONS**

University of Cincinnati Emerging Ethnic Engineers Teaching Service and Commitment Award		1994
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### **PRINTED SCHOLARSHIP**

#### **Papers Published in Official Proceedings**

Basista, B. (1999) Physics Components of Science Education Program For Elementary Education Majors. Proceedings of the '99 International Conference of Physics Teachers & Educators, Guangxi Normal University Press, 266-269 (I)

Ramey-Gassert, L., Tomlin, J., Basista, B., & Slattery, W. (1997) Further Development of a Comprehensive Undergraduate Science Education Program for Elementary and Middle School Teachers. Published conference proceedings of the Association for the Education of Teachers of Science, 640-654 (N)

#### **Scholarly Publications**

Mathews, S. M., Cornell, K., & Basista, B. (2005) Where is the moon tonight? Submitted February 14, 2005, to Mathematics Teaching in the Middle School for a focus issue in 2006 on integrating mathematics and science.

Mathews, S., Basista, B., Farrell, A., Tomlin, J. (2004) "Challenges and Enabling Factors in Accomplishing Reform of Science and Mathematics Teacher Preparation." *Teacher Education and Practice* 16 (4), 399-413. (R)

Basista, B., Mathews, S., Tomlin, J. Farrell, A., Lunsford, S., Slattery, W. (2004) "Collaborative Development of Middle Childhood Science and Mathematics Teacher Preparation Programs." In S. Wagner & S. P. Meiring (Eds.), *The Story of SUSTAIN: Models of Reform in Mathematics and Science Teacher Education*. (pp. 139-158) Columbus, OH: Ohio Resource Center for Mathematics, Science, and Reading. (I, R) {To be published in fall 04}

Basista, B., Herrelko, J., Sandy, M., Lowell, C., Nedunuri, K., Okunade, S., Klopfenstein, P., Roath, K., Aldridge, M., Ross, A., Thompson, C., Mathews, S., Tomlin, J., Rusch, T. Krakowski, R., Esprit, L., Johnson, J., Aimiwu, S. (2004)“Miami Valley Collaborative for the Improvement of Science and Mathematics Education”. In S. Wagner & S. P. Meiring (Eds.), *The Story of SUSTAIN: Models of Reform in Mathematics and Science Teacher Education*. (pp. 159-180) Columbus, OH: Ohio Resource Center for Mathematics, Science, and Reading. (I, R) {To be published in fall 04}

Basista, B., N. Howell (2004) Concepts and Applications in Physics for Early Childhood Education Majors. Student Course Manual for PHY 245 bound with selected chapters of Griffith, W.T. The Physics of Everyday Phenomena. McGraw Hill Custom Publishing.Boston.

Basista, B., N. Howell (2004) Concepts and Applications in Physics I for Middle Childhood Education Majors. Student Course Manual for PHY 246 bound with Griffith, W.T. The Physics of Everyday Phenomena. McGraw Hill Custom Publishing.Boston.

Basista, B., Tomlin, J. (2003) “Case Study 1: The Problems Confronting Institutions and Graduates” In T. Lasley (EdS.) *Improving mathematics and Science Education in Ohio*. Proceedings from Ohio Board of Regents Mathematics and Science Teaching Fellows Statewide Conference. (I) Submitted in 2003 and published in 2004

Basista, B., Tomlin, J. (2003) “Case Study 2: The Problem of Offering Appropriate and Sufficient Content Courses” In T. Lasley (EdS.) *Improving mathematics and Science Education in Ohio*. Proceedings from Ohio Board of Regents Mathematics and Science Teaching Fellows Statewide Conference. (I) Submitted in 2003 and published in 2004

Basista, B., Tomlin, J. (2003) “Teaching Fellows’ Observations Regarding Case Studies 1 and 2” In T. Lasley (EdS.) *Improving mathematics and Science Education in Ohio*. Proceedings from Ohio Board of Regents Mathematics and Science Teaching Fellows Statewide Conference. (I) Submitted in 2003 and published in 2004

Basista, B., Mathews, S. (2002) “Integrated Science and Mathematics Professional Development Programs” *School Science and Mathematics*. 102(7) 359-370.(R)

Basista, B., Tomlin, J., Pennington, K., Pugh, D. (2001) Inquiry-based Integrated Science and Mathematics Professional Development Program. Education 121 (3), 615-624. (R)

Basista, B. (2000) Concepts and Applications in Physics :Early Childhood Education Physics 245 Course Manual. McGraw-Hill Companies, Inc. New York, NY.\* (N)

Basista, B., Caine, D (1999). Foundations in Problem-Solving and Scientific Literacy Third Edition. Hayden-McNeil Publishing, Inc. Plymouth, MI. \* (N)

Basista, B., Caine, D (1998) Foundations in Problem-Solving Second Edition. Hayden-McNeil Publishing, Inc. Plymouth, MI. (N)

Basista, B., Caine, D (1997) Foundations in Problem-Solving Second Edition. Hayden-McNeil Publishing, Inc. Plymouth, MI. (N)

Basista, B. (1998) Concepts and Applications in Physics McGraw-Hill Publishing. New York, NY. \*• (N)

Basista, B., Suranyi, P. (1993) Hamiltonian Effective Potentials. Physical Review **D48**, 3826. (R)

### **Published Abstracts**

Lunsford, S., Basista, B. (2000) Modular Physical Science Workshops. 32<sup>nd</sup> Central Regional (American Chemical Society) ACS Meeting Bulletin. (N)

Basista, B. (1999) Physics Components of Science Education Program For Elementary Education Majors. International Conference of Physics Teachers and Educators (Sept. 1999, Guilin, China) [www.ipe.gxnu.edu.cn](http://www.ipe.gxnu.edu.cn) (I)

Basista, B. A Foundations Course and A Physics Course for Elementary Education Majors (1999) (American Physical Society) APS Bulletin, Oct 8,9 Southwestern Ohio Section APS/ Southern Ohio Section (American Association of Physics Teachers) AAPT (N).

Basista, B. (1999) Physics Course for Elementary Education Majors. Ohio Journal of Science, 99 (1).(R)

Basista, B. (1998) Foundations Course in Science For Elementary Education Majors. Ohio Journal of Science, 98 (1).(R)

Slattery, W., Hundley, S., Tomlin, J., Ramey, L., Basista, B., & Becker, M. (1998). Teacher's Will Teach as They are Taught: Preservice Teacher Earth Systems Education as a Key to Developing a K-12 Sustainability Curricula. (Geological Society of America) GSA Abstracts, 30 (7). (R)

### **Scholarly Work**

Ohio Board of Regents Teaching Fellows (2004) Reviewer of Mathematics and Science Teacher Preparation: A Primer. Ohio Board of Regents.

Basista, B. (2000) Review of Esler, W. and Esler, M. Teaching Elementary Science, Eighth Edition. Wadsworth Publishing Co., New York, NY.

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\* • Portions of these manuals or the entire manuals are utilized off campus at Sinclair Community College, Trotwood-Madison High School, Wayne High School Alternative Program, Miami Valley CTC.

Basista, B. (1999, 2000) Instructor Manual for Concepts and Applications in Physics utilized by university, college, and school district faculty implementing the text.

Basista, B. (1999) Integrated Science and Mathematics Summer Institute Activity Manual Utilized by inservice teachers during the summer institute component of an Eisenhower grant.

Basista, B., Klepinger, R. (1999) Physical Science Summer Institute Activity Manual. Utilized by inservice teachers during the summer institute component of an Eisenhower grant.

Basista, B. (1998) Instructor Manual for Foundations in Problem-Solving and Scientific Literacy utilized by university, college, and school district faculty implementing the text.

### **Program Development and Graduate Student Advising**

Development of science and mathematics education concentration of Educational Specialist in Curriculum and Instruction (2002-present)

Interdisciplinary M.S.T. program advisor.

Development of Physics M.S.T. program and courses from an inactive program to a program of eight students. (1997-2000)

Development of Middle Childhood Licensure program with a concentration in science. In collaboration with Tomlin, J., Mathews, S., Slattery, W., Ramey, L., Lunsford, S.

Development of Interdisciplinary M.S.T. graduate degree program. In collaboration with Tomlin, J., Mathews, S., Farrell, A., Slattery, W., Lunsford, S., Serve, P., Rusch, T.

Graduate Student Advisor for M.S.T. Students: McKee, J. (2003-present); Maltinsky, M. (2003-present) Pitz, G. (2002), Chambers, J. (2002-present), Hunt, J. (2002-present), Mills, J. (2001-present); Bledsoe, K. (2001-present); Janson, G. (2001-present); Lewis, J. (2001-present); Miller, K. (2001-2002); Strope, C. (1997-1999); Caine, D. (1997-2000); Pennington, K. (1998-2001); Klepinger, R. (1998-2000); Limes, G. (1998-2002); Aldridge, M. (1998-2001); Robinson, S. (1999-present); Bey, A. (2000-present).

### **Grant and Contract Proposals Submitted**

#### **Funded:**

Basista, B., Bernhardt, G., Lasley, T., Aldridge, M. (2004) "Ohio Higher Education Network". Ohio Board of Regents. \$200,000. Overall director of collaborative project of WSU, UD, and Sinclair, local site director for WSU (\$108,350)

Mathews, S., Basista, B. Lasley, T., Seidel, K., Wong, L. (2004) *Middle School Science and Mathematics Teacher Study*. National Science Foundation \$2,462,929 Pending

Basista, B., Krakowski, R., Smith, T. (2004) *Mathematics and Physical Science Professional Development Program for Grades 7-11 Teachers (year 3)*. Ohio Board of Regents Improving Teacher Quality Program. \$154,238 Pending

Basista, B., Krakowski, R., Petkie, D. (2003) *Mathematics and Physical Science Professional Development Program for Grades 7-11 Teachers*. Ohio Board of Regents Improving Teacher Quality Program. \$201, 877. PI and Director.

Basista, B., Mathews, M., Tomlin, J., Farrell, A., Rusch, T. (2003) *West/ Central EXCEL Center of Excellence in Science and Mathematics Education*. Ohio Board of Regents and Ohio Resource Center. \$125,000. West Region Director.

Krakowski, R. , Basista, B., Petkie, D. (2003) *Integrating Mathematics and Physical Science with Technology*. Ohio Board of Regents. \$200,000. Co-director.

Basista, B., Mathews, M., Tomlin, J., Farrell, A., Rusch, T. (2002) *West/ Central EXCEL Center of Excellence in Science and Mathematics Education*. Ohio Board of Regents and Ohio Resource Center. \$125,000. West Region Director.

Basista, B., Tomlin, J. Rusch, T., Farrell, A., Brame, R. (2002) *Wright State University Model School Initiative, Year 2. OSI-Discovery*. \$69,413. Director.

Basista, B. (2001) *Miami Valley Regional Collaborative for the Improvement of Science and Mathematics Education, Phase 3.5*. Ohio Board of Regents/ Ohio Department of Education. (\$143,000)

Tomlin, J, Basista, B., Farrell, A., Rusch, T., Brame, R. (2001) *Wright State University Model School Institute*. Ohio Board of Regents (\$86,956)

Brame, R., Basista, B. Tomlin, J., Lunsford, S. *Projects in Science Course for Middle Childhood Preservice and Inservice Teachers*. Ohio Board of Regents (\$18,000).

Basista, B, Mathews, S., Tomlin, J., O'Connor, R. (2000) *Inquiry-based Integrated Astronomy, Math, and Language Arts Professional Development Program for Early and Middle Childhood Teachers*. Ohio Board of Regents (\$85,646).

Basista, B. (2000) *Miami Valley Regional Collaborative for the Improvement of Science and Mathematics Education, Phase 3*. Ohio Board of Regents/ Ohio Department of Education. (\$130,000)

Basista, B., Mathews, S, Tomlin, J. (2000). *Collaborative Development of Middle Childhood Science and Mathematics Courses with Interdisciplinary Components*. Ohio Board of Regents (\$27,000).

Basista, B. (1999). *Inquiry-based Integrated Physics and Mathematics Professional Development Program*. Ohio Board of Regents. (\$42,683).

Tomlin, J., Basista, B. (1999). Science Mentor Professional Development Institute. Ohio Board of Regents (\$56,083).

Basista, B., Lunsford, S. (1999) Modular Physical Science Professional Development Program. Department of Education, Fund for the Improvement of Post-Secondary Education. (\$149,926).

Mathews, S., Basista, B. (1998) Model Professional Development Program in Inquiry-based Integrated Mathematics and Science for Secondary and Middle Level Educators. Ohio Board of Regents. (\$43,090).

Lunsford, S., Basista, B. (1998) Physical Science Modular Professional Development Program. Ohio Board of Regents. (\$36,696).

Ramey, L., Tomlin, J., Basista, B. & Slattery, W. (1998). The Southern Ohio "Global Learning and Observations to Benefit the Environment" (GLOBE) Environment Science Education Initiative. The Ohio Environmental Protection Agency/Ohio Environmental Education Fund (\$42,000)

Basista, B., Mathews, S., Tomlin, J., Ramey-Gassert, L., Slattery, W., & Lunsford, S. (1998). Institutionalization and Enhancement of Discovery Practices in Teacher Preparation. Ohio Board of Regents/ Ohio Department of Education (\$79,000)

Basista, B., Tomlin, J., Ramey-Gassert, L. (1997) Model Professional Development Program in Inquiry Based Integrated Science and Mathematics for Elementary and Middle Level Educators. Ohio Board of Regents (\$57,927)

Basista, B., Bambakidis, G. (1997) Enhancing Learning Environments in Physics. Wright State University Institutional Realignment Grant. (\$67,356)

Basista, B. (1997) Project GROW. National Science Foundation. (\$208,000)

Tomlin, J., Basista, B., Ramey-Gassert, L. (1997). Transition Proposal: Continuing Science and Mathematics Reform. Ohio Board of Regents/Department of Education (\$80,000).

Basista, B., Tomlin, J., and Ramey-Gassert, L. (1996) Assessment of the Impact of a Newly Developed Science Education Program on Students' Attitudes Toward Science and Science Teaching Self-Efficacy. WSU Research Council's Research Initiation Grant (\$10,008)

Basista, B., Burke, A. (1996) Tri-County Consortium. Ohio Board of Regents. (\$39,952)

Unfunded:

Ramey-Gassert, Basista, B. & Tomlin, J. (1996) Model for the Development of a Broad Community of Learners Through a Comprehensive Science Education Program. WSU Provost's Office Instructional Realignment Grant. (\$41,758)

Ramey-Gassert, L., Basista, B., Lowrey, J., Tomlin, J. (1996) Integration of Inquiry-Based Science & Mathematics to Expand Use of Technology in K-4 Classrooms. Ohio Board of Regents (\$65,065).

### **Technical Reports**

Basista, B. West Region EXCEL Center Annual Reports (2003, 2004). Ohio Board of Regents, Ohio Resource Center.

Basista, B. (2001) Wright State University Miami Valley Regional Collaborative for the Improvement of Science and Mathematics Education, Phase 3. Ohio Board of Regents/ Ohio Department of Education. Columbus, OH.

Basista, B., Lunsford, S. (2000) Modular Physical Science Professional Development Program, First Year Performance Report. US Department of Education. Washington, DC.

Basista, B. (2000) Wright State University Institutionalization and Enhancement of Discovery Practices, Phase 2 SUSTAIN Progress Report. Ohio Board of Regents/ Ohio Department of Education. Columbus, OH.

Basista, B. (2000) Wright State University Transition Proposal Final Report, Phase 1 SUSTAIN. Ohio Board of Regents/ Ohio Department of Education. Columbus, OH.

Basista, B. (1999) Final Report for Project GROW. National Science Foundation. Washington, DC.

Basista, B., Lunsford, S. (1999-2000) Interim and final reports for Physical Science Modular Professional Development Program. Ohio Board of Regents. Columbus, OH.

Mathews, S., Basista, B. (1999-2000) Interim and final reports for Model Professional Development Program in Inquiry-based Integrated Mathematics and Science for Secondary and Middle Level Educators. Ohio Board of Regents. Columbus, OH.

Basista, B. (1997-1998) Interim and final reports for Model Professional Development Program in Inquiry Based Integrated Science and Mathematics for Elementary and Middle Level Educators. Ohio Board of Regents. Columbus, OH.

Basista, B. (1997) Interim and final reports for Assessment of the Impact of a Newly Developed Science Education Program on Students' Attitudes Toward Science and Science Teaching Self-Efficacy. WSU Research Council.

Basista, B. (1996-1997) Interim and final reports for Tri-County Consortium. Ohio Board of Regents. Columbus, OH.

**Professional Presentations Given**

Lasley, T., Basista, B. "The Improvement of Science and Math Teacher Preparation through Data Analysis". Preparation of Ohio's math and Science Teachers: Content Delivery Through Inquiry Teaching. Ohio Board of Regents Teaching Fellows Conference April 1,2, 2004. Columbus, OH (I)

Basista, B. "Improving Science and Mathematics Education- Issues and Challenges". Seminar given at WSU Dept of Physics Oct 7, 2004.

Basista, B. "Initiatives to Improve Science and Mathematics Education". Seminar given at WSU Dept of Physics Oct 14, 2004.

Basista, B., Tomlin, J. "Improving Science Teacher Education" Day long interactive talk given to 24 University of Dayton Science Faculty of the Integrated Natural Science Sequence April 8, 2004. University of Dayton (I)

Basista, B., Owens, D. "*EXCEL* Center Site Visit Presentation" Presentation given to Ohio Board of Regents and Vice Chancellor about *EXCEL* Center accomplishments and challenges. Dec. 2, 2004. Student Union, WSU.

Basista, B. Presentation about Science and Mathematics Teacher Preparation at Miami Valley Higher Education Faculty Network, SUSTAIN, EXCEL, and ORC meeting June 4, 2004. Nutter Center, WSU

Basista, B. Presentation about Ohio Higher Education Network. Oct. 29, 2004. Nutter Center, WSU.

Mathews, S. & Basista, B. "One Season of Science and Math Professional Development". School Science and Mathematics Conference. October, 2003. Columbus, OH. (R)

Basista, B. & Mathews, S. " Issues, Challenges, and Opportunities in Science and Mathematics Integration" Mathematics, Science, and Technology Educators and Researchers Seventh Annual Spring Conference. Ohio State University. Nov 1, 2003. Columbus, OH. Featured Speaker (I).

Basista, B. " *EXCEL* Center of Excellence in Science and Mathematics Education". Presentation at WSU Chair's meeting. April, 2003. (I)

Lunsford, S. & Basista, B. (2003, Nov 20) Ohio Project: Ohio's Needs and Ohio's Opportunities. Columbus, OH.

Basista, B. (2002, April) Ohio Teaching and Learning Conference. Invited panel member

to discuss dual appointments and science and mathematics curriculum.. Columbus, OH. (I)

Serve, P., Basista, B., Mathews, S., Kirch, S. (2002, Nov.) Ohio Project Meeting. Invited panel member for discussion about dual appointments and middle childhood science and mathematics education programs. Columbus, OH. (I)

Null, R., Basista, B., Mathews, S., Schmitmeyer, K. (2002, Oct.) "Closing the mathematics skills gap between high school and college". National Tech-prep conference. Cincinnati, OH.

Basista, B. Mathews, S., Tomlin, J., Kirch, S., Lunsford, S., Aldridge, M., Lowell, C., Sandy, M. (2001, Nov.) "Miami Valley Regional Collaborative". Project SUSTAIN statewide meeting. Columbus, OH.

Mathews, S., Basista, B. (2001, January) "Integrated Mathematics and Science Professional Development Program" Association of Mathematics Teacher Educators Costa Mesa, Ca.

Basista, B. (2000, July) "School District and University Collaborations to Improve Science and Mathematics Education". Invited presentation for the Model Schools Summer Institute at Miami University, OH. (I)

Lunsford, S., Basista, B. (2000, May) "Modular Physical Science Workshops" 32<sup>nd</sup> Central Regional American Chemical Society (ACS) Meeting. Covington, Kentucky. (N)

Basista, B., Mathews, S., Farrell, A. (2000, April) "We Teach as We Were Taught" Invited presentation at Ohio Section of American Mathematical Association of Two Year Colleges (AMATYC) Edison Community College, OH. (I)

Basista, B. (2000, April) "Foundations Course for Elementary Education Majors". Presented at national meeting of National Association of Science Teachers (NSTA), Orlando, FL. (R)

Tomlin, J., Basista, B. (2000, April) "Neurobiology and the Science Classroom: Speculations and Implications". Presented at National Association of Science Teachers (NSTA), Orlando, FL. (R).

Basista, B. (1999, Sept.) "Physics Components of Science Education Program for Elementary Education Majors". Invited poster at International Physics Education Conference in Guilin, China. (I)

Basista, B. (1999, Sept.) "A Foundations Course and a Physics Course for Elementary Education Majors". Poster presented at regional meeting of American Physical Society, Dayton, OH. (N)

Basista, B., Mathews, S., Tomlin, J. (1999, Dec.) “Wright State University Phase 3 Developments”. Invited update at OSI-*Discovery* SUSTAIN meeting in Columbus, OH. (I)

Basista, B., Tomlin, J., Pennington, K., Pugh, D. (1999, Feb.) “Inquiry-based Integrated Science and Mathematics Professional Development Program”. Presented at Science Education Council of Ohio (SECO) state meeting, Dayton, OH. (N)

Basista, B., J. Tomlin (1999, March) “Foundations Course for Elementary Education Majors”. Presented at national meeting of National Association of Science Teachers (NSTA), Boston, MA. (R)

Basista, B. (1998, Nov.) “Reform in Science Teacher Preparation”. Presented at Physics department seminar at Wright State University. (N)

Slattery, W., Hundley, S., Tomlin, J., Ramey, L., Basista, B., & Becker, M. (1998, October). “Teacher's Will Teach as They are Taught: Preservice Teacher Earth Systems Education as a Key to Developing a K-12 Sustainability Curricula”. Annual Meeting of Geological Society of America. Toronto, Canada (N)

Basista, B., Tomlin, J., Ramey, L., Mathews, S., & Slattery, W. (1998, May) “Science and Mathematics Education Reform at Wright State University”. Invited presentation at OSI DISCOVERY/SUSTAIN meeting Columbus, OH (I).

Tomlin, J., Basista, B., Ramey, L., & Slattery, W (1997, January) “Further Development of a Comprehensive Undergraduate Science Education Program for Elementary and Middle School Teachers”. Session presented at the annual meeting of Association of Educators of Teachers in Science (AETS), Cincinnati, OH. (R)

Tomlin, J., Basista, B., & Ramey, L. (1996, October) “Science Education Reform at Wright State University”. Session presented at the regional meeting of the National Association of Science Teachers (NSTA), Phoenix, AZ. (R)

Tomlin, J., Basista, B., & Ramey, L. (1996, November) “Science Education Reform at Wright State University”. Session presented at the regional meeting of the National Association of Science Teachers (NSTA), Atlanta GA. (R)

### **Professional Consulting**

Ohio Dept. of Education- Team member Physical Science professional development module development OSCI3-6 (2004)

Ohio Dept. of Education – Reviewer of OSCI 7-10 Physical Science Professional Development Modules (2004)

Basista, B. External Evaluator for Sinclair Community College Five-year review of

Dept. of Physics (Feb. 2002)

Basista, B., and Tomlin, J. Selected as an Ohio Board of Regents Teaching Fellows to visit Ohio Teacher Preparation Institutions and gather data, analyze and interpret data about science and mathematics teacher preparation programs; to advise institutions about improvements of teacher preparation programs; advise Ohio Board of Regents of methods to help institutions improve teacher preparation programs (Sept. 2002- present).

Basista, B., Mathews, S. Consultant for “Engaging Mathematics with Technology” Tech-Prep program at Edison Community College. (2 days Sept-Dec 2002).

Basista, B. (2000-2003) Dayton Public Schools Physical Science Consultant for inservice teacher workshops for NSF grant Comprehensive Partnerships for Math and Science Achievement.

Basista, B., Mathews, S. (2000) Consultants and External Evaluators of TECH Prep "Skills-Gap" grant.

Basista, B. (1999) “Earth, Sun, and Moon” and “Forces & Motion”. Inservice teacher seminars for Huber Heights City Schools.

Basista, B. (1999) “Integrating Science and Mathematics”. Dayton Public Schools Seminar for faculty retreat (SMART retreat).

Basista, B. (1998) “Physical Science” seminar for Science Teacher Training Enhancement Project (STTEP) of Dayton Public Schools.

Basista, B. (1998) “Integration of Mathematics and Science” seminar for Science Teacher Training Enhancement Project (STTEP) of Dayton Public Schools.

Basista, B. (1998) Evaluated TIMSS exams for OSI-*Discovery* given to Toledo middle school students.

## SERVICE AND ACADEMIC OUTREACH

### Committee Service

<b>University Committee</b>	<b>Position</b>	<b>Dates</b>
Teacher Education Council	Member	1999-present
Undergraduate Curriculum and Policy Committee	Member (elected)	1997-2000; 2002- 2003

<b>College Committee</b>	<b>Position</b>	<b>Dates</b>
Science and Mathematics Education Coordinating Council	member	2004-present
Science and Mathematics Education Committee	Member (appointed)	1995-present
CEHS Assessment Committee	Member	2002-present

### **College Responsibilities**

Interdisciplinary M.S.T. graduate program	Director	2001-present
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### **Department Committee**

	<b>Position</b>	<b>Dates</b>
Language Arts Educator Search Committee	Member (appointed)	1997
Physics Undergraduate Curriculum Committee	Member (appointed)	1995-1997
Physics Faculty Development Committee		2001-present
Physics Self-Study Committee	co-chair	2002-present
Physics Education Search Committee	member	2004

### **Departmental Responsibilities**

	<b>Position</b>	<b>Dates</b>
Science Education Courses (SM 145, PHY 245, PHY346, PHY445)	Supervisor and coordinator	1997-present
Science Education Courses (SM445, PHY 445, 446,447)	Supervisor and coordinator	2001-present
M.S.T. Physics graduate program	Program director	1995-present

### **Professional Service/Outreach**

Ohio Board of Regents Teaching Fellow		2002-present
Writing Team Ohio Board of Regents NSF proposal for Statewide Math and Science Partnership		2002
Reviewer of Title II Proposals for Improvement of Science and Math Courses and Technology Conversions (Ohio Board of Regents)		2000
Co-author of pre-proposal to Ohio Board of Regents for new graduate Interdisciplinary Master of Science in Teaching Program		2000

(with Farrell, A., Serve, P. and Thomas, J. Approved October 2000)	
Mentoring science faculty in science education standards, licensure laws, teaching methodologies, grant writing and implementation, paper writing and presenting	1998-2000
Mentored three Dayton Public School teachers in teaching integrated science and mathematics and utilization of technology by model teaching. With Mathews, S.	1999
Reviewer for <u>School Science and Mathematics</u>	1999-present
Finance Committee for <u>School Science and Mathematics</u>	2000-present
Helped develop and write science licensure programs for TED	1998-1999
Member of six-person team chosen to write statewide proposal to National Science Foundation for collaborative improvement of science and mathematics education in Ohio	1998
Member of state team to design curricula and outcomes for Regents Scholars Program	1998
Judge at State Science Day	1997-1998
Mentored two Huber Heights teachers by model teaching of physical science	1997-1998
Attended meetings regarding Ohio Department of Education's Middle Childhood Licensure Programs and Adolescent Licensure Programs	1997
Seminars given to teachers of Beverley Gardens Elementary School on new science standards and their implementation	1997
Physics Department representative for Fall Visitation	1997
Proposal reader for US Department of Education's Fund for the Improvement of Post-Secondary Education (FIPSE)	1996
Wright Track program: presented two sessions for students on physics and problem-solving skills	1995

### **Workshops Presented**

Basista, B., Mathews, S., Tomlin, J., Farrell, A. (2000, June-September) "Miami Valley Regional Collaborative for the Improvement of Science and Mathematics Education". Designed and presented funded workshops for WSU and regional college and university science, mathematics, and education faculty to enhance understanding of teacher preparation and formulate plans for modification of science and mathematics courses in accordance with licensure laws, learned society guidelines, and national and state recommendations. WSU Campus. Dayton, OH.

Basista, B., Tomlin, J., Lunsford, S. (2000, June) "Administrator Workshop for the Improvement of Precollege Science and Mathematics Education". Conducted for Dayton Public Schools, Trotwood-Madison City Schools, Huber Heights City Schools, Fairborn City Schools, and Springfield City Schools. WSU Campus. Dayton, OH.

Basista, B., Tomlin, J., Mathews, S., Farrell, A., Lunsford, S. (1998-9, May -September). "Southwestern Ohio Regional Program of SUSTAIN Initiative for Improvement of Science and Mathematics Teacher Preparation". Presented funded workshops for regional college and university science, mathematics, and education faculty to coordinate efforts to improve preservice teacher science and mathematics education in southwestern Ohio. WSU Campus. Dayton, OH

Basista, B., Mathews, S., Lunsford, S. (1999, May) "Administrator Workshop for Science and Mathematics Education". Conducted for Springfield City Schools, Trotwood-Madison City Schools, Huber Heights City Schools in conjunction with Eisenhower Grants. Huber Heights Administrative Offices, Huber Heights, OH.

Basista, B., Mathews, S. (1999, October) "Integrated Mathematics and Science Workshop I". Presented for teachers of Springfield City Schools, Trotwood-Madison City Schools, and Huber Heights City Schools in conjunction with an Eisenhower Grant. WSU Campus. Dayton, OH

Mathews, S., Basista, B. (1999, December) "Integrated Mathematics and Science Workshop II". Presented for teachers of Springfield City Schools, Trotwood-Madison City Schools, and Huber Heights City Schools in conjunction with an Eisenhower Grant. WSU Campus. Dayton, OH

Basista, B., Lunsford, S. (1999, October) "Physical Science Workshop: Food Chemistry". Presented for teachers of Springfield City Schools, Trotwood-Madison City Schools, and Huber Heights City Schools in conjunction with an Eisenhower Grant. WSU Campus. Dayton, OH

Lunsford, S., Basista, B. (1999, December) "Physical Science Workshop: Mystery Festival". Presented for teachers of Springfield City Schools, Trotwood-Madison City Schools, and Huber Heights City Schools in conjunction with an Eisenhower Grant. WSU Campus. Dayton, OH

Basista, B., Tomlin, J., Ramey, L. (1997, May). "Science Education Standards and Renewal Administrators' Workshop". Conducted for Trotwood-Madison Administrators in conjunction with Eisenhower Grant. West Region RPDC, Dayton, OH.

Basista, B., Tomlin, J., Ramey, L. (1997, June). "Science Education Standards And Renewal Administrators Workshop". Conducted for Huber Heights Administrators in conjunction with Eisenhower Grant. West Region RPDC, Dayton, OH